# APPENDIX K

*Transportation Impact Analysis*

Palm Villas Saratoga

# Final Draft Transportation Impact Analysis

Prepared for

The City of Saratoga

Prepared by

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# EXECUTIVE SUMMARY

This report presents the results of the transportation impact analysis (TIA) for the proposed 79-bed[1] memory care facility project located in the City of Saratoga, in the western portion of Santa Clara County. The project site is located approximately 175 feet south of the intersection of Saratoga Creek Drive and Cox Avenue, northeast of State Route 85 (SR 85) and west of Saratoga Avenue. The proposed project would consist of construction and operation of a Residential Care Facility for the Elderly (RCFE), consisting of two buildings on two adjacent lots. The two buildings have been designed to function as a single complex. The proposed project (including both buildings) would include a combined total of 79 beds, related support functions (such as food service, pharmacy, laundry, administration, etc.), and 38 parking spaces.

### Project Traffic Estimates

The Project is expected to generate 21 AM peak hour trips (9 inbound and 12 outbound) and 28 PM peak hour trips (12 inbound and 16 outbound).

### Intersection Impacts and Mitigation Measures

The operations of 4 intersections in the City of Saratoga were evaluated during the peak morning and evening commute hours for existing conditions and for two future conditions. The two future conditions are called Background Conditions and Cumulative Conditions. Traffic estimates for the Project were added to the base volumes for Existing, Background, and Cumulative conditions ("No Project" scenarios) and intersection operations were reevaluated with the added traffic ("Plus Project" scenarios). The effect of the Project was then identified by comparing operations before project traffic is added to conditions after project traffic is added. The effect is considered a significant impact if certain standards or parameters are exceeded.

The results indicate that all study intersections operate at acceptable service levels during the AM and PM peak hours under existing and future conditions and no mitigation is needed.

### Parking

The Project's parking supply of 47 spaces meets and exceeds the City's requirement of 37 spaces.

### Bicycle and Pedestrian Facilities

Pedestrian facilities near the site include sidewalks, crosswalks, pedestrian signals and off-street shared use paths. There is a continuous sidewalk along the south side of Cox Avenue north of the Project site. In

[1] The TIA results are based on a 79-bed facility; thought the proposed project is actually only 78 beds (i.e. one bed less than analyzed). Since the analysis is based on one extra bed than proposed, the analysis represents a more conservative results and the results/conclusions would not substantially change.

addition, there are continuous sidewalks along both sides of Saratoga Avenue east of the Project site. Cox Avenue and Saratoga Avenue have Class II bike facilities (bike lanes) along both sides of the street. There is a Class I shared-use path bike facility along the De Anza Trail within a five-minute biking distance south of the Project site.

### Transit Vehicle Delay

TRAFFIX outputs were used to calculate the change in transit delay between the No Project and Plus Project scenarios for Existing, Background, and Cumulative conditions. Overall, the added transit delay along the main study corridor of the project (Saratoga Avenue) is less than 5 seconds. Therefore, the addition of the project would not affect transit operations.

### Left-Turn Queueing

The intersection of Saratoga Avenue and Cox Avenue near the Project site was selected for the left-turn queue evaluation based on where the Project would add the most left turning vehicles during either the AM or PM peak hour. The 95$^{th}$ percentile left-turn queues from TRAFFIX were compared between No Project and Plus Project scenarios under Existing and Background Conditions. Both the northbound left turn and eastbound left turn movements have projected 95$^{th}$ percentile queue lengths that exceed the left-turn storage. Intelligent transportation system (ITS) improvements are recommended to improve signal operations and queueing.

# 1.0 INTRODUCTION

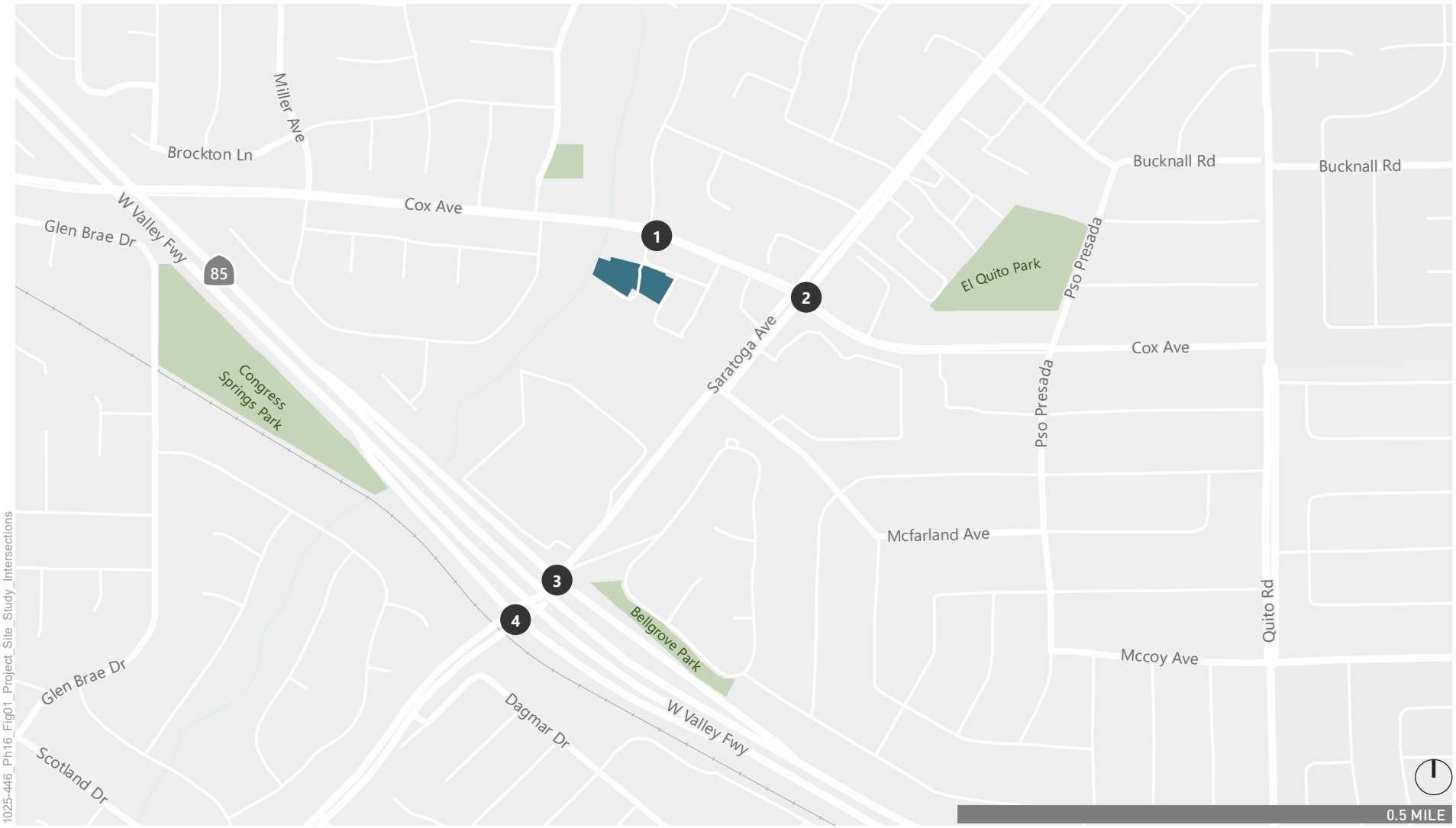
This report presents results of the Transportation Impact Analysis (TIA) conducted for the proposed 79-bed memory care facility located in the City of Saratoga, California (hereafter referred to as the "Project"). The purpose of this analysis is to identify potentially significant adverse impacts of the Project on the surrounding transportation system and recommend mitigation measures. The TIA was prepared following guidelines of the City of Saratoga and the Santa Clara Valley Transportation Authority (VTA), the congestion management agency for Santa Clara County. This chapter provides a detailed project description and outlines the study area, study scenarios, analysis methodologies, level of service (LOS) standards, and significance criteria.

## 1.1 PROJECT DESCRIPTION

The proposed project site is in the City of Saratoga (City or Saratoga), in the western portion of Santa Clara County. The project site is located approximately 175 feet south of the intersection of Saratoga Creek Drive and Cox Ave, northeast of State Route 85 (SR 85) and west of Saratoga Avenue. The project site location and site vicinity are presented in **Figure 1**.

The Project would consist of the construction and operation of a Residential Care Facility for the Elderly (RCFE), consisting of two buildings on two adjacent lots. The two buildings have been designed to function as a single complex. The Project would include a total of 79 beds[2], related support functions (such as food service, pharmacy, laundry, administration, etc.), and 38 parking spaces. Lot 1 would be developed with a two-story 15,214-square foot building. This building would include 52 patient beds in 26 rooms. Lot 2 on the eastern side of the project site would be developed with a two-story 9,318-square foot building. This building would include 27 patient beds in 15 patient rooms. **Figure 2** shows the site plan.

[2] The TIA results are based on a 79-bed facility; thought the proposed project is actually only 78 beds (i.e. one bed less than analyzed). Since the analysis is based on one extra bed than proposed, the analysis represents a more conservative results and the results/conclusions would not substantially change.



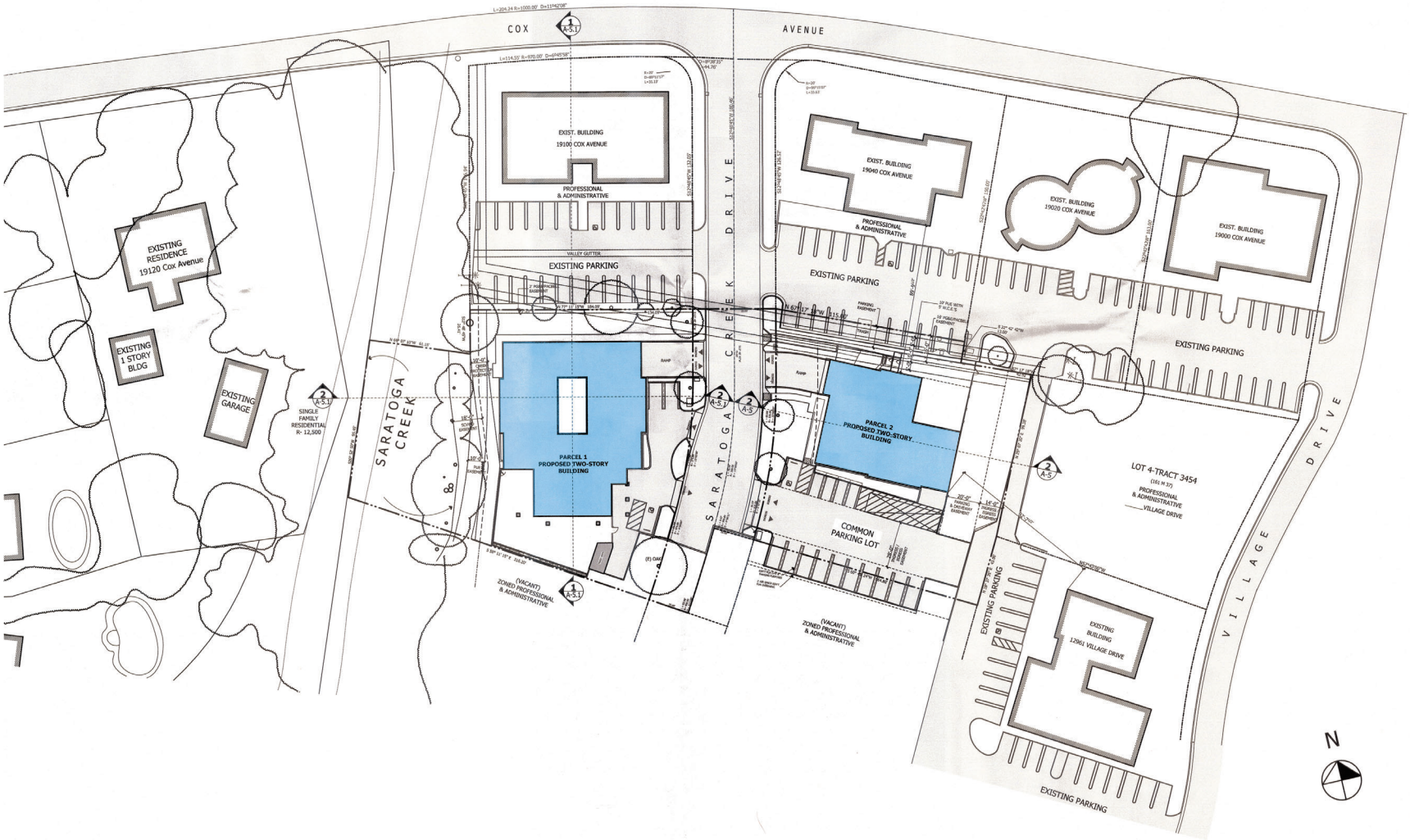

Project Site

# Study Intersections

Figure 1

## Project Site and Study Intersections

Saratoga NTMP | Palm Villas




Source: Metro Design Group

Figure 2

## Site Plan

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## 1.2 STUDY AREA

Project impacts were evaluated at study intersections located near the site. The amount of traffic generated by the Project is too low to warrant a freeway analysis as discussed below.

Study Intersections

The study intersections listed below were selected in consultation with City of Saratoga staff and are generally determined based on VTA's ten trip per lane guideline, which indicates that an intersection should be included if the proposed project adds 10 or more peak hour vehicles per lane to any intersection movement. All intersections are signalized except for the intersection of Cox Avenue and Saratoga Creek Drive. The jurisdiction that maintains each intersection is noted in parenthesis.

1. Cox Avenue / Saratoga Creek Drive (Saratoga)
2. Cox Avenue / Saratoga Avenue (Saratoga)
3. Saratoga Avenue / SR-85 Northbound Ramps (Saratoga / Caltrans)
4. Saratoga Avenue / SR-85 Southbound Ramps (Saratoga / Caltrans)

**Figure 1** shows the study intersections.

Freeway Segments

According to the VTA guidelines, a freeway segment shall be included in the TIA if it meets any one of the following conditions:

1. The proposed development project is expected to add peak hour traffic equal to or greater than one percent of the freeway segment's capacity[1];
2. The proposed development project is adjacent to a freeway segment's access or egress point;
3. Based on engineering judgement, the Lead Agency staff determines that the freeway segment should be included in the analysis.

The Project would not add traffic more than one percent of capacity to any freeway segment; one percent of capacity on SR-85 at the Saratoga Avenue interchange is 69 trips which is greater than the projected number of Project traffic during the AM or PM peak hour; therefore, no freeway analysis was conducted as part of this TIA report.

[1] The TIA must provide a tabulation to show that freeway segments have been assessed to determine if freeway analysis is required, even in the case where it is determined that no freeway segments meet the one percent threshold, or include text indicating that this assessment has been conducted.

## 1.3 ANALYSIS SCENARIOS

The operations of the study intersections were evaluated during the weekday morning (AM) and weekday evening (PM) peak hours for the following scenarios as presented in **Chapters 2, 3, 4, and 5**:

**Scenario 1:** Existing Conditions – Existing volumes obtained from counts.

**Scenario 2:** Existing Plus Project Conditions – Scenario 1 volumes plus traffic generated by the Project.

**Scenario 3:** Background Conditions – Existing volumes plus traffic from "approved but not yet built" and "not occupied" developments in the area.

**Scenario 4:** Background Plus Project Conditions – Scenario 3 volumes plus traffic generated by the Project.

**Scenario 5:** Cumulative No Project Conditions – Background No Project volumes (Scenario 3) plus traffic from pending developments in the area and a growth factor.

**Scenario 6:** Cumulative plus Project Conditions – Scenario 5 volumes plus traffic generated by the Project.

## 1.4 ANALYSIS METHODS

The operations of roadway facilities are described with the term *level of service*. Level of Service (LOS) is a qualitative description of traffic flow from a driver's perspective based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with little or no delay, to LOS F, with excessive delays. LOS E represents "at-capacity" operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result, and operations are designated as LOS F.

### 1.4.1 Signalized Intersections

The method described in Chapter 16 of the 2000 *Highway Capacity Manual* (HCM) (Special Report 209, Transportation Research Board) was used to prepare the level of service calculations for the signalized study intersections. This method, which is approved by the VTA, analyzes a signalized intersection's operation based on average control delay per vehicle. Control delay includes the initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using TRAFFIX analysis software and is correlated to a LOS designation as shown in **Table 1**.

**TABLE 1: SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS USING AVERAGE CONTROL VEHICULAR DELAY**

| Level of Service | Description | Average Control Delay Per Vehicle (Seconds) |
|---|---|---|
| A | Operations with very low delay occurring with favorable progression and/or short cycle lengths. | ≤ 10.0 |
| B+<br>B<br>B- | Operations with low delay occurring with good progression and/or short cycle lengths. | 10.1 to 12.0<br>12.1 to 18.0<br>18.1 to 20.0 |
| C+<br>C<br>C- | Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | 20.1 to 23.0<br>23.1 to 32.0<br>32.1 to 35.0 |
| D+<br>D<br>D- | Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | 35.1 to 39.0<br>39.1 to 51.0<br>51.1 to 55.0 |
| E+<br>E<br>E- | Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. | 55.1 to 60.0<br>60.1 to 75.0<br>75.1 to 80.0 |
| F | Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths. | > 80.0 |

Source: *Traffic Level of Service Analysis Guidelines*, October 2014; VTA Congestion Management Program, June 2003; *Highway Capacity Manual*, Transportation Research Board, 2000.

### 1.4.2 Unsignalized Intersections

The operations of the unsignalized study intersection was evaluated using the method contained in Chapter 17 of the 2000 HCM. LOS ratings for stop-sign-controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side-street-controlled intersections, the average control delay is calculated for each stopped movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. **Table 2** summarizes the relationship between delay and LOS for unsignalized intersections.

**TABLE 2: UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS USING AVERAGE CONTROL VEHICULAR DELAY**

| Level of Service | Description | Average Control Delay Per Vehicle (Seconds) |
|---|---|---|
| A | Little or no delay. | ≤ 10.0 |
| B | Short traffic delay. | 10.1 to 15.0 |
| C | Average traffic delays. | 15.1 to 25.0 |
| D | Long traffic delays. | 25.1 to 35.0 |
| E | Very long traffic delays. | 35.1 to 50.0 |
| F | Extreme traffic delays with intersection capacity exceeded. | > 50.0 |

Sources: *Traffic Level of Service Analysis Guidelines*, October 2014; VTA Congestion Management Program, June 2003; *Highway Capacity Manual*, Transportation Research Board, 2000.

## 1.5 LEVEL OF SERVICE STANDARDS AND IMPACT CRITERIA

The following LOS standards and impact criteria were applied to this analysis.

### 1.5.1 Intersections

#### 1.5.1.1 Signalized Intersections

Impact criteria for signalized intersections are discussed below. For all jurisdictions, a significant impact is considered to be mitigated to a less-than-significant level when measures are implemented that would restore intersection operations to the jurisdiction's LOS standard or to an average delay that is better than without project conditions. Signalized intersection operations and impacts were evaluated based on the appropriate jurisdiction's LOS standards and are included in the impact criteria discussion below.

**City of Saratoga**

The City of Saratoga has established a minimum acceptable operation level of LOS D for local streets (City of Saratoga Circulation and Scenic Highway Element: Background Report/Goals, Policies, and Implementation Measures, November 2010). The City of Saratoga defers to VTA and applies LOS E threshold to Congestion Management Program (CMP) intersections. Significant impacts at signalized City of Saratoga intersections would occur when the addition of Project traffic causes one of the following:

- Intersection operations to degrade from an acceptable level (LOS D or better for local streets and LOS E or better for CMP intersections) to an unacceptable level (LOS E or F for local streets and LOS F for CMP intersections); or
- Unacceptable operations to be exacerbated by increasing the critical delay by four seconds or more, and increasing the volume-to-capacity (V/C) ratio by 0.01 or more; or

- An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

**Caltrans**

Caltrans has identified a LOS objective of C/D (i.e., on the "cusp" or threshold between level of service C and D) as the acceptable service level (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002). The two SR 85 ramp intersections with Saratoga Avenue are the only facilities analyzed under Caltrans' LOS impact criteria, since they are not included under VTA's CMP. Intersection impacts are defined to occur when the addition of Project traffic:

- Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D, E, or F); or
- Exacerbates unacceptable operations by increasing vehicle delay (i.e. increases delay by 0.1 seconds or more).

The signalized intersection LOS standards for the City of Saratoga and Caltrans are summarized below in **Table 3**. The applicable LOS standards for each study intersection are summarized in **Table 4**.

**TABLE 3: SIGNALIZED INTERSECTION LOS STANDARDS**

| Jurisdiction | Intersection LOS Standard | Citation |
|---|---|---|
| City of Saratoga | LOS D | City of Saratoga Circulation and Scenic Highway Element: Background Report/Goals, Policies, and Implementation Measures, November 2010 |
| Caltrans | LOS C/D | Caltrans Guide for the Preparation of Traffic Impact Studies, 2002 |

Sources: Saratoga and Caltrans, 2019

### 1.5.1.2 Unsignalized Intersections

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in type of intersection control (i.e., all-way stop or signalization). The peak hour signal warrant is evaluated if the unsignalized intersection operates at unacceptable levels of service.

There is one unsignalized study intersection within the City of Saratoga. The City of Saratoga does not have officially adopted significance criteria for unsignalized intersections. Based on previous studies, significant impacts are defined to occur when the addition of Project traffic causes the average intersection delay for all-way stop-controlled intersections or the worst movement/approach for side-street stop-controlled

intersections to degrade to an unacceptable level (LOS E or F) and the intersection satisfies the California Manual on Traffic Control Devices (MUTCD) peak-hour volume signal warrant.

#### 1.5.1.3 Summary of Intersection LOS Thresholds

The applicable LOS standards for each study intersection as discussed above are summarized in **Table 4**.

**TABLE 4: LOS STANDARDS FOR STUDY INTERSECTIONS**

| # | Intersection | Intersection Control[1] | Location | LOS Standard |
|---|---|---|---|---|
| 1 | Cox Avenue / Saratoga Creek Drive | SSSC | Saratoga | D |
| 2 | Cox Avenue / Saratoga Avenue | Signal | Saratoga | D |
| 3 | Saratoga Avenue /SR-85 Northbound Ramps | Signal | Saratoga (Caltrans) | C |
| 4 | Saratoga Avenue/SR-85 Southbound Ramps | Signal | Saratoga (Caltrans) | C |

Notes:
1. Signal = signalized intersection, SSSC = side-street stop-controlled intersection

Sources: Saratoga and Caltrans

### 1.5.2 Pedestrian and Bicycle Impact Criteria

Pedestrian and bicycle impacts are considered significant if the Project would potentially disrupt existing pedestrian and bicycle facilities, eliminate existing pedestrian and/or bicycle facilities, interfere with planned pedestrian and bicycle facilities, increase conflicts between drivers, pedestrians, and/or bicyclists, or create inconsistencies or conflicts with adopted pedestrian and bicycle plans, guidelines, policies, or standards. These impacts are discussed in **Chapter 6.**

### 1.5.3 Transit Impact Criteria

Transit impacts are considered significant if the Project conflicts with existing or planned transit facilities, substantially increases transit delay, or does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops. These impacts are discussed in **Chapter 6.**

## 1.6 REPORT ORGANIZATION

The remainder of this report is divided into the following chapters:

- ***Chapter 2*** describes the **existing transportation system** near the Project site and the current operating conditions of the key intersections.

- ***Chapter 3*** describes **Existing Plus Project Conditions**, including the method used to estimate the amount of traffic added to the surrounding roadways by the Project and its impacts on the transportation system.
- ***Chapter 4*** describes **Background No Project and Background Plus Project Conditions** and associated intersection impacts and mitigation measures.
- ***Chapter 5*** describes **Cumulative No Project and Cumulative Plus Project Conditions** and associated intersection impacts and mitigation measures.
- ***Chapter 6*** provides an assessment of **site access, on-site circulation, parking, multi-modal transportation, and transit vehicle delay,**
- ***Chapter 7*** presents the results of the **left-turn queuing analysis and vehicle miles traveled analysis**.

# 2.0 EXISTING CONDITIONS

This chapter describes the existing conditions of the roadway network, pedestrian and bicycle facilities, and transit service in the study area. It also presents existing traffic volumes and operations for the study intersections with the results of level of service calculations.

## 2.1 EXISTING ROADWAY NETWORK

SR-85 and Saratoga Avenue provide regional access near the project site. Local access is provided via Cox Avenue and Saratoga Creek Drive. Descriptions of these roadways are presented below. **Figure 1** shows the locations of these facilities in relation to the Project site.

- *Saratoga Avenue* is a major arterial street that extends from Saratoga-Los Gatos Road (SR 9) to Quito Road and beyond into the Cities of San Jose and Santa Clara. This roadway is located approximately 700 feet east of the Project site. Near the Project site between Cox Avenue and SR-85, Saratoga Avenue is a four-lane roadway with a posted speed limit of 40 miles per hour (mph).
- *SR-85* is a primarily north-south freeway located south of the Project site with three travel lanes in each direction. On some segments, one travel lane in each direction is designated as a high-occupancy vehicle (HOV) lane. HOV lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more persons (carpool, vanpool, and buses), motorcycles, or qualified clean air vehicles during the morning (5:00 AM to 9:00 AM) and evening (3:00 PM to 7:00 PM) commute periods. SR-85 merges into US-101 in Mountain View and South San Jose. Access to the Project site is provided via the Saratoga Avenue interchange.
- *Cox Avenue* is a minor two-lane arterial street that extends east-west between Saratoga-Sunnyvale Road and Quito Road. West of Saratoga Avenue and near the Project site, this street includes two travel lanes with a posted speed limit of 35 mph. Cox Avenue is the only east-west street providing a direct connection across Saratoga between Saratoga-Sunnyvale Road and Quito Road.
- *Saratoga Creek Drive* is a local road that extends north-south between Cox Avenue and Kosich Drive. This street is located north of the Project site and includes two travel lanes with a posted speed limit of 25 mph.

## 2.2 PEDESTRIAN FACILITIES

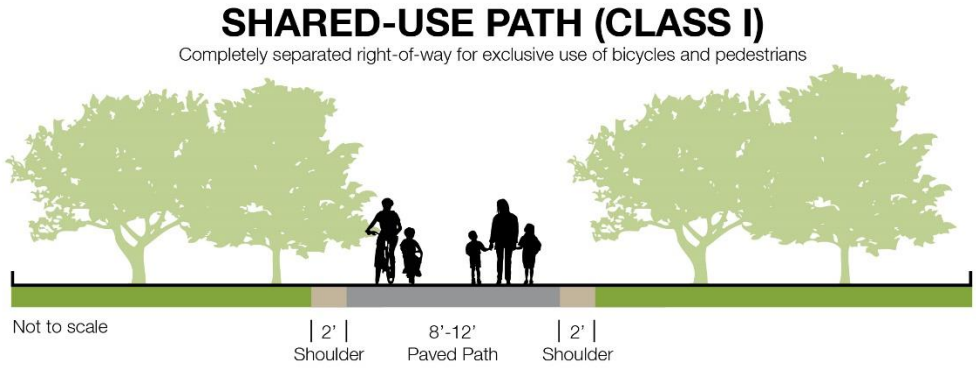
Pedestrian facilities near the site include sidewalks, crosswalks, pedestrian signals and off-street shared use paths. There is a continuous sidewalk along the south side of Cox Avenue north of the Project site that measures 6 feet in width. In addition, there are continuous sidewalks along both sides of Saratoga Avenue east of the Project site. No sidewalks are present along Saratoga Creek Drive. Crosswalks are provided at all the signalized study intersections. No crosswalks exist at the unsignalized intersection of Saratoga Creek Drive and Cox Avenue north of the Project site. The Project site is approximately one mile away from De

Anza Union Pacific Railroad (UPRR) Trail south of the SR-85. VTA bus stops along Saratoga Avenue serving Route 58 are accessible within a five-minute walking distance using the pedestrian sidewalk network.

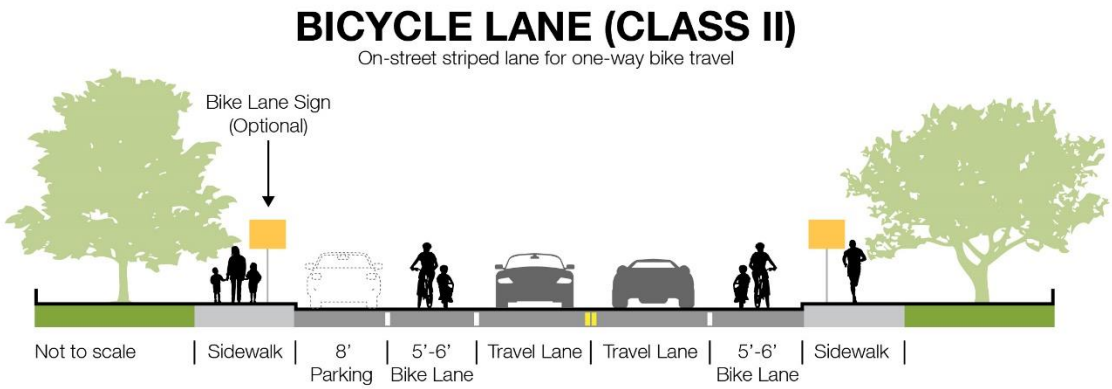
## 2.3 BICYCLE FACILITIES

Bikeway planning and design in California typically relies on guidelines and design standards established by California Department of Transportation (Caltrans) in the Highway Design Manual (Chapter 1000: Bikeway Planning and Design). Caltrans provides for four distinct types of bikeway facilities, as described below and shown in the accompanying figures.

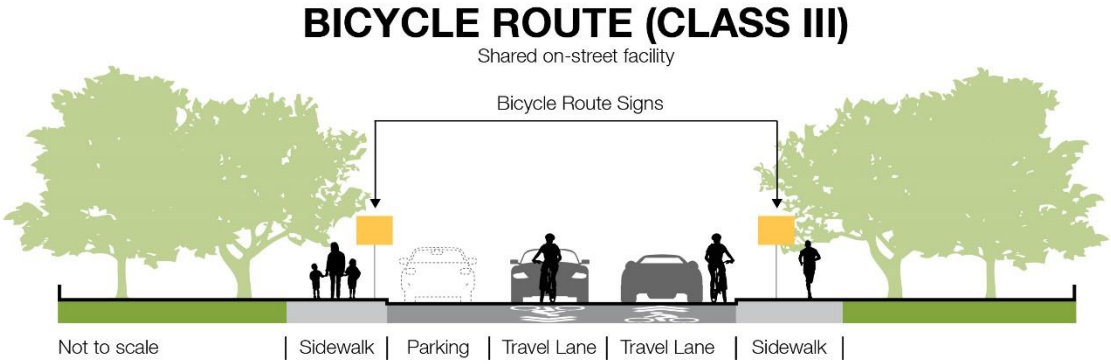
- *Class I Bikeways (Bike Paths)* provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized. In general, bike paths serve corridors not served by streets and highways or where sufficient right-of-way exists to allow such facilities to be constructed away from the influence of parallel streets and vehicle conflicts.




- *Class II Bikeways (Bike Lanes)* are lanes for bicyclists generally adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bicycle lanes are generally five (5) feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.

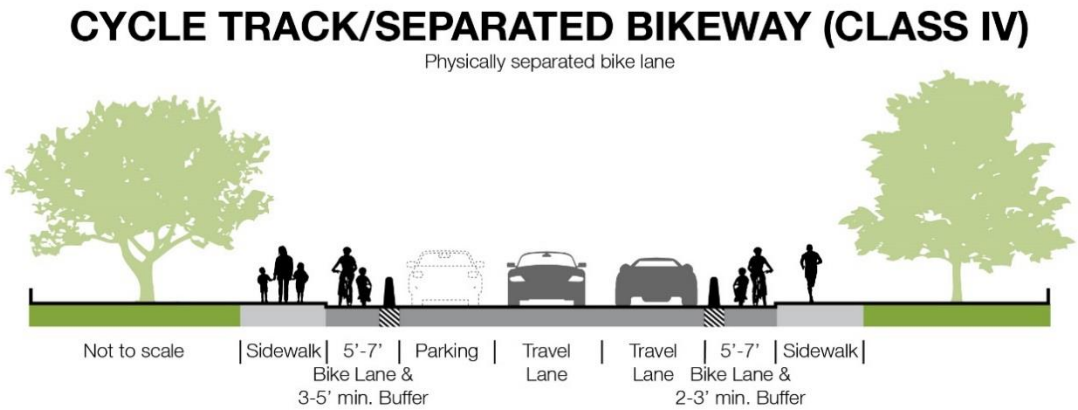



- *Class III Bikeways (Bike Routes)* are designated by signs or pavement markings for shared use with pedestrians or motor vehicles, but have no separated bike right-of-way or lane striping. Bike routes serve either to: a) provide continuity to other bicycle facilities, or b) designate preferred routes through high demand corridors.



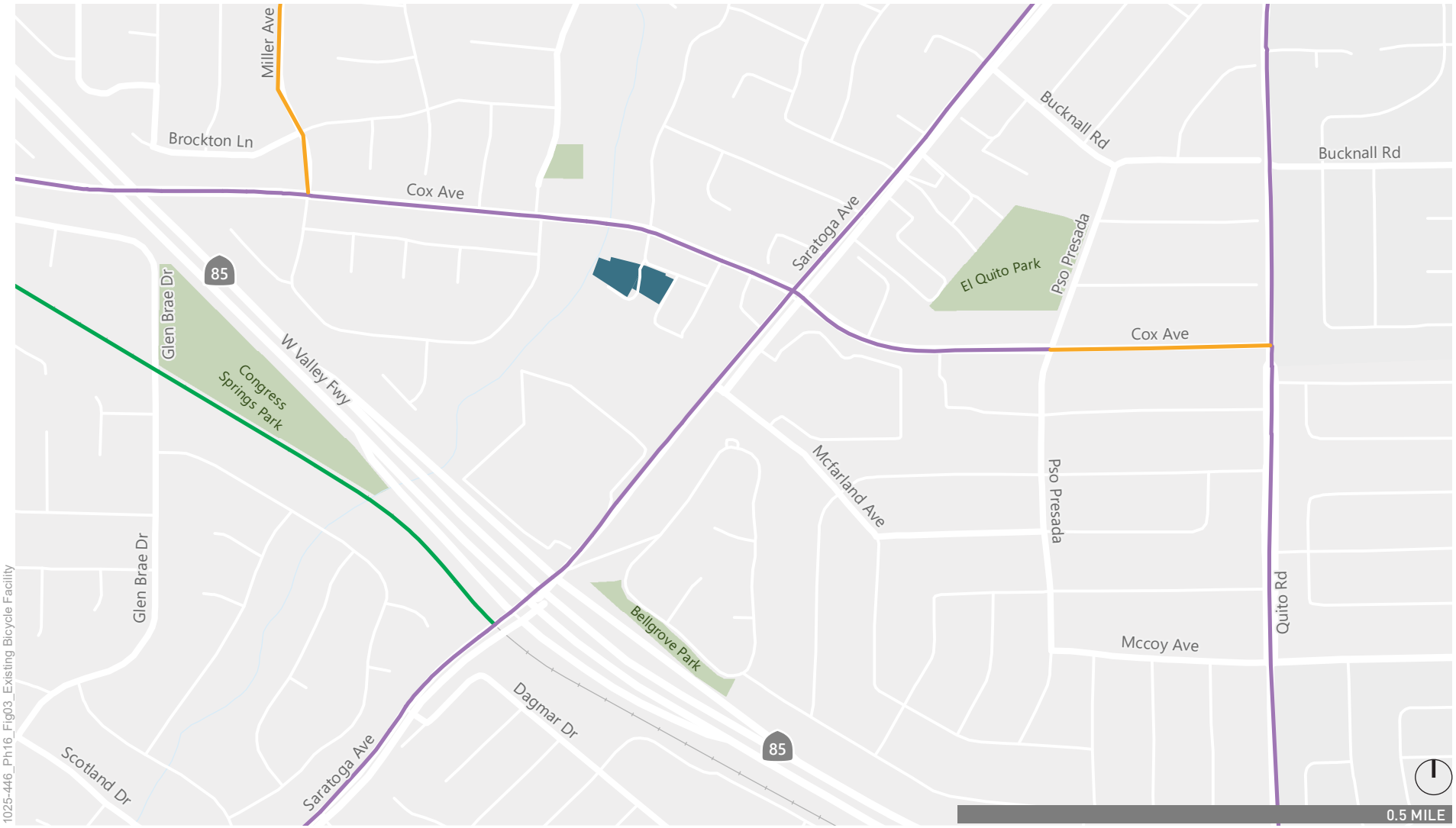

- *Class IV Bikeways (Cycletracks or Protected Bike Lanes)*[2] provide a right-of-way designated exclusively for bicycle travel within a roadway and which are protected from other vehicle traffic with devices, including, but not limited to, grade separation, flexible posts, inflexible physical barriers, or parked cars.

[2] 3-5′ minimum buffer needed to account for space for car door openings from parked cars. 5′ buffer needed for handicap vehicle door openings.




The *VTA Bicycle Technical Guidelines* (December 2007) recommends that Caltrans standards regarding bicycle facility dimensions be used as a minimum and provides supplemental information and guidance on when and how to better accommodate the many types of bicyclists.

**Figure 3** shows the location of the existing bicycle facilities near the Project site. Cox Avenue and Saratoga Avenue have Class II bike facilities (bike lanes) along both sides of the street. There is a Class I shared-use path bike facility along the De Anza UPRR Trail within a five-minute biking distance south of the Project site. This trail is identified as of one the priority cross county bicycle corridors in the Santa Clara Countywide Bicycle Plan and serves regional trips with north-south connectivity along the Union Pacific Railroad right-of-way. In addition, there are bike lanes along Quito Road within a three-minute biking distance east of the Project site.




Project Site

Class I - Bike Path

Class II - Bike Lane

Class III - Bike Route

Figure 3

# Existing Bicycle Facility

Saratoga NTMP | Palm Villas

## 2.4 EXISTING TRANSIT SERVICE

The Project site is directly served by Santa Clara Valley Transportation Authority (VTA) buses and indirectly by Caltrain commuter rail service. The West Valley Transit Center located 1.5 mile southeast of the Project site acts as a transfer center for VTA buses. **Table 5** includes the origin and destination, operating hours and headways of the transit routes near the site.

### 2.4.1 Current VTA Bus Service

As shown on **Figure 4**, the site is currently served by VTA bus route 58. A summary of the route 58 serving the Project site is provided below:

- *Route 58* – Service from West Valley College in Saratoga to Liberty Street/Taylor Street intersection in north San Jose. On weekdays, frequencies are 30 minutes during the AM and PM peak periods and about one hour during off-peak time periods. This route stops at Saratoga Avenue/Cox Avenue, a walking distance of 0.2 miles from the Project site.

### 2.4.2 VTA New Service Plan

VTA is developing a new transit service plan called the 2019 New Transit Plan. The goal of the new plan is to increase ridership and improve cost-effectiveness, including changes to Route 58. The New Transit Plan proposes to discontinue Route 58. Current riders may use Route 26 along Saratoga Avenue. Route 26, which currently connects the Lockheed Martin Transit Center with the Westgate area and Eastridge Transit Center would be divided into two routes: Route 26 and Route 56. Route 26 would connect West Valley College with the Westgate area and Eastridge Transit Center. Weekday frequency on Route 26 would be improved from 30 minutes to 15 minutes and weekend frequency would improve from 30 minutes to 20 minutes. **Figure 5** shows the changes to the bus routes near the Project site.

### 2.4.3 Caltrain Service

Caltrain provides regional passenger rail service between San Francisco and San Jose, with extended service to Morgan Hill and Gilroy during weekday commute hours. The San Jose Diridon Caltrain station is located approximately 8 miles from the Project site. The station is accessible from the Project site via driving, and public transit (Routes 902, 26, and 37). The *Caltrain Modernization Program* will electrify the Caltrain system and, in turn, improve the performance, operating efficiency, capacity, safety, and reliability of Caltrain's rail service. Electrification will help meet increasing ridership and is scheduled to be completed by 2019.

Project Site

Local Bus Route

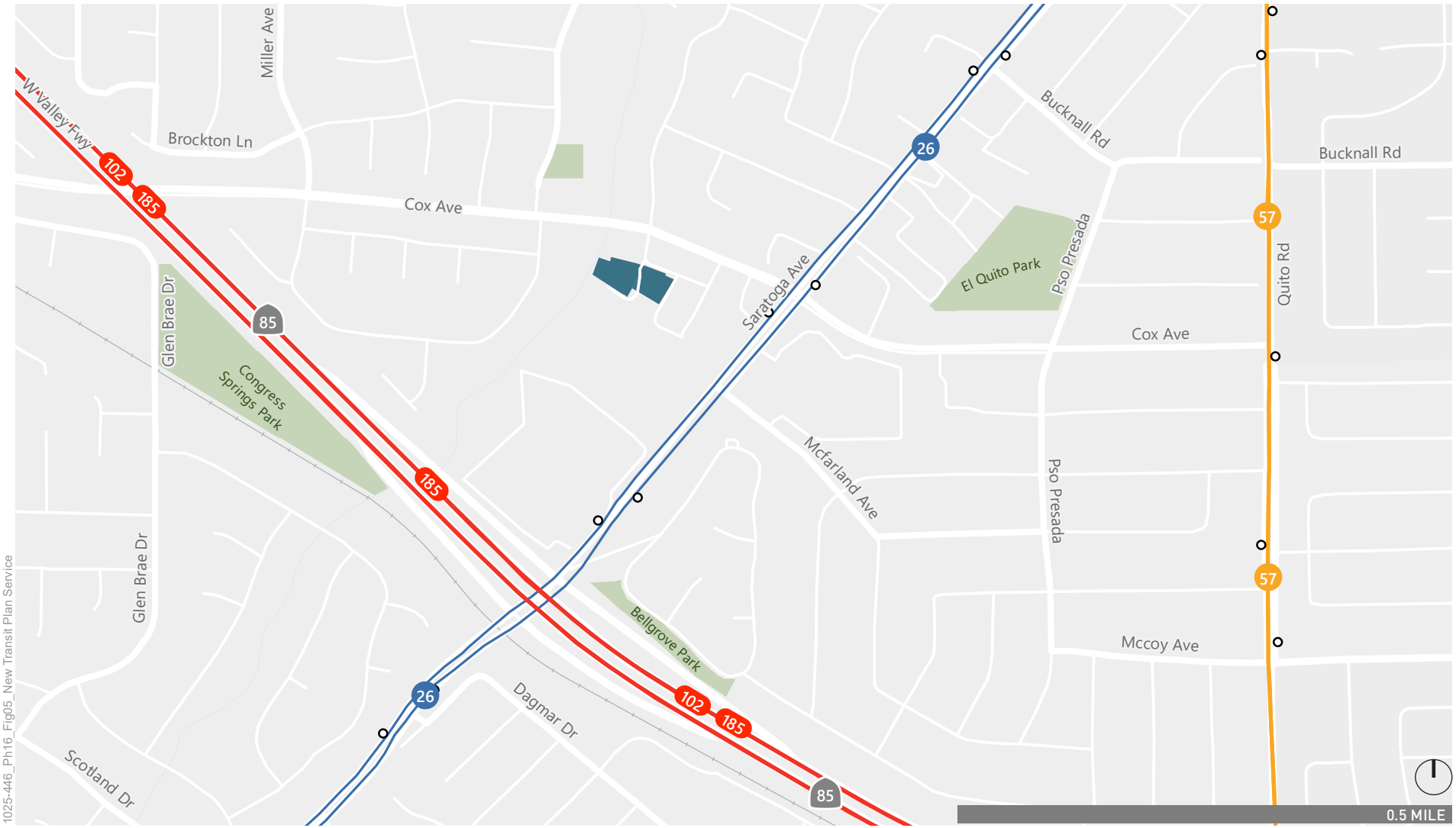
Express Bus Route

Bus Stops

Figure 4

# Existing Transit Facilities

Saratoga NTMP | Palm Villas




1025-446_Ph16_Fig05_New Transit Plan Service

Project Site

Local Bus

Frequent Bus

Express Bus

Next_Network_Bus_Stops

Figure 5

## New Transit Plan Service

Saratoga NTMP | Palm Villas

**TABLE 5: TRANSIT SERVICE**

| Route | From | To | Weekdays | | Weekends | |
|---|---|---|---|---|---|---|
| | | | Operating Hours[1] | Peak Headway[1] (minutes) | Operating Hours | Headway (minutes)[2] |
| Existing VTA Route 58 | West Valley College | Liberty and Taylor | 6:03 AM – 8:14 PM | 30 | No Service | |
| VTA New Transit Plan Route 26 | West Valley College | Eastridge Transit Center | 5:30 AM – 12:00 AM | 15 | 6:30 AM – 12:00 AM Saturday<br>7:30 AM – 11:00 PM Sunday | 20 |
| Caltrain | San Jose Diridon (Gilroy) | San Francisco | 4:28 AM – 12:05 AM | 15 | 7:00 AM – 12:31 AM Saturday<br>8:38 AM -12:11 AM Sunday | 60 |

Notes:
1. Headways are defined as the time interval between two transit vehicles traveling in the same direction over the same route. Caltrain headways are measured from San Jose Diridon Station.

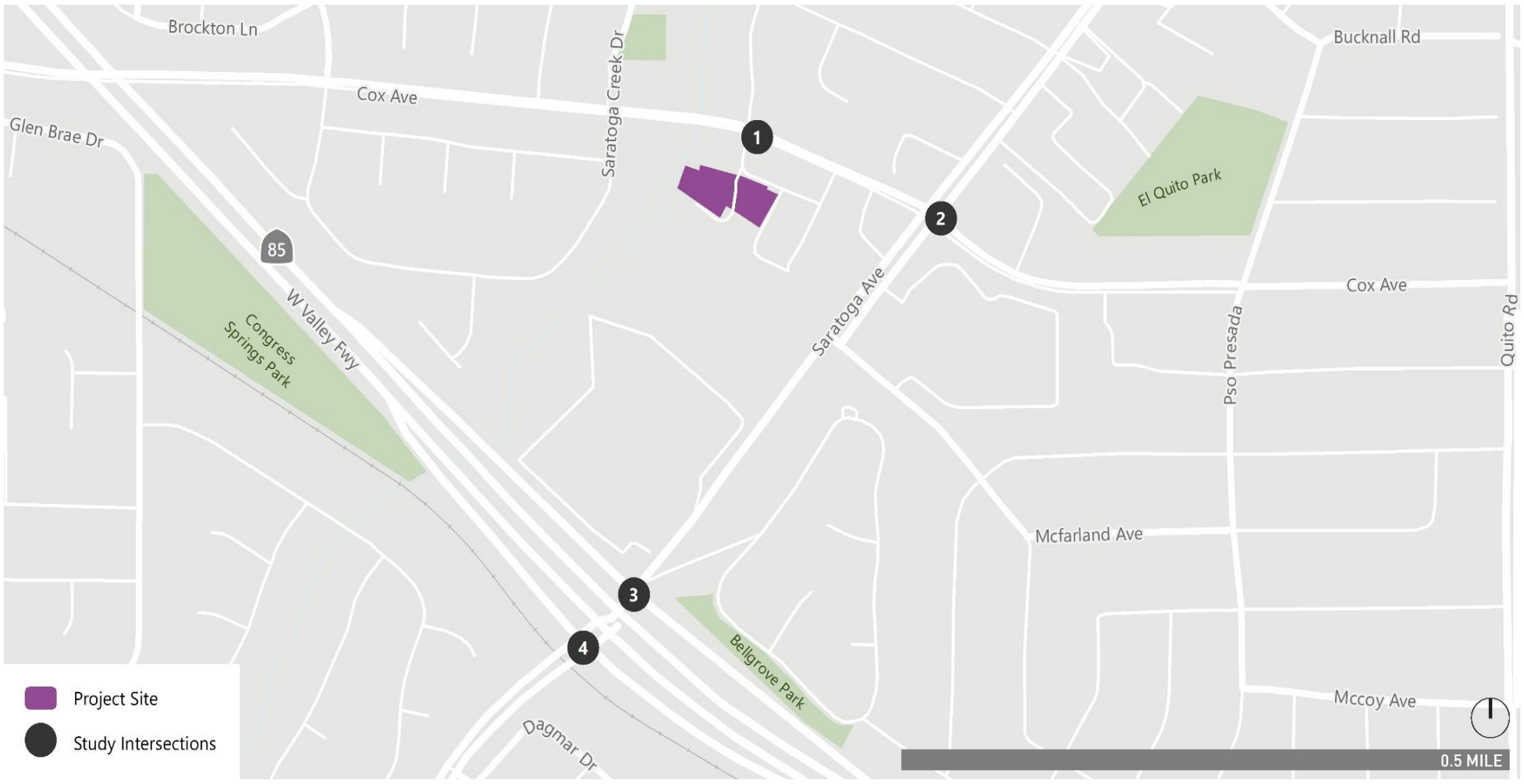
Source: VTA, Caltrain, April 2019.

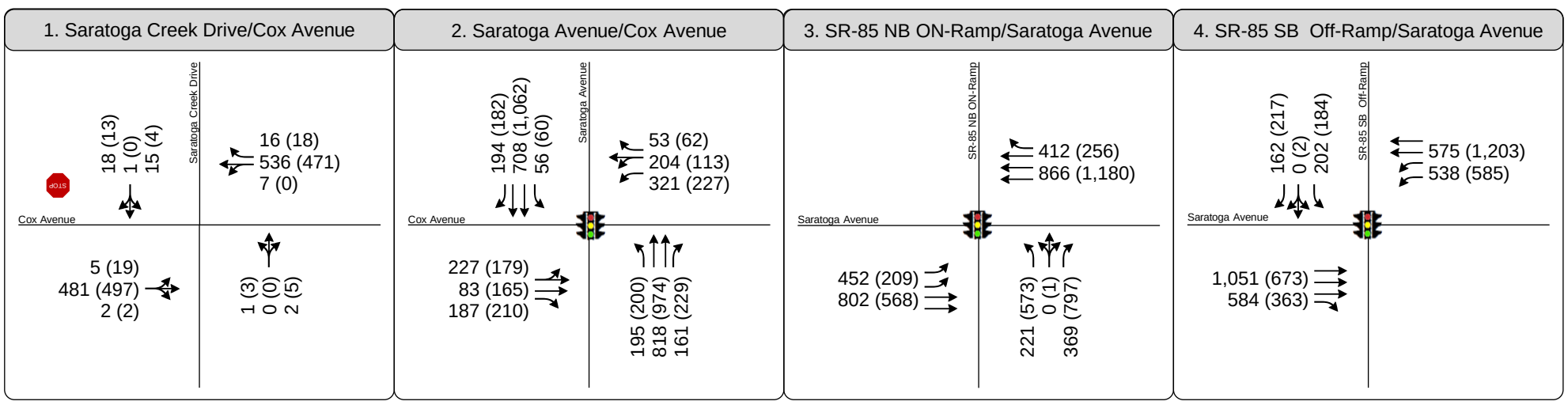
## 2.5 EXISTING INTERSECTION VOLUMES AND LANE CONFIGURATIONS

The existing operations of the study intersections were evaluated for the highest one-hour volumes during the weekday morning and evening commute periods. Traffic counts were conducted in March 2018. Copies of the traffic counts are included in **Appendix A. Figure 6** presents the existing AM and PM peak-hour turning movement volumes, lane configurations, and traffic control devices at the study intersections.

## 2.6 EXISTING INTERSECTION LEVELS OF SERVICE

Existing intersection lane configurations, signal timings, and peak-hour turning movement volumes were used to calculate the levels of service for study intersections during each peak hour. The results of the LOS analysis for Existing Conditions are presented in **Table 6. Appendix B** contains the corresponding calculation sheets. The results indicate that all study intersections operate at acceptable service levels (LOS D or better for City intersections and LOS C/D or better for Caltrans intersections) during the AM and PM peak hours.




## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 6

Existing Traffic Volumes and Lane Configurations

**TABLE 6: EXISTING INTERSECTION LEVELS OF SERVICE**

| Intersection ID | Intersection Name | Count Date | Intersection Control[1] | LOS Standard[2] | Peak Hour[3] | Existing Conditions | |
|---|---|---|---|---|---|---|---|
| | | | | | | Delay[4] | LOS[5] |
| 1 | Cox Avenue / Saratoga Creek Drive | March 2018 | SSSC | D | AM<br>PM | 18.0<br>15.6 | C<br>C |
| 2 | Saratoga Avenue / Cox Avenue | March 2018 | Signal | D | AM<br>PM | 33.2<br>38.5 | C-<br>D+ |
| 3 | Saratoga Avenue / NB Ramp SR-85 | March 2018 | Signal | C | AM<br>PM | 20.5<br>24.8 | C+<br>C |
| 4 | Saratoga Avenue / SB Ramp SR-85 | March 2018 | Signal | C | AM<br>PM | 18.6<br>18.5 | B-<br>B- |

Notes: **Bold text** indicates intersection operates at unacceptable level of service.

1. Signal = Signalized Intersection; SSSC = Side-Street Stop Controlled Intersection.
2. LOS Standard of intersection's jurisdiction.
3. AM = morning peak hour (between 7:00 and 9:00 AM), PM = evening peak hour (between 4:00 and 6:00 PM).
4. Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
5. LOS = Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.

Source: Fehr & Peers, April 2019.

## 2.7 FIELD OBSERVATIONS

Field visits at the Project site and study intersections were conducted in April 2018 to verify the calculated intersection LOS operations for the Existing Conditions and to observe overall transportation characteristics. Observations indicated that all the study intersections are operating at or near the calculated LOS values.

Cycle lengths and signal phasings were observed at all signalized study intersections and applied to the calculation of existing intersection LOS described in **Section 2.6**.

# 3.0 EXISTING PLUS PROJECT CONDITIONS

This section presents the operations of the surrounding roadway system under Existing Plus Project Conditions. First, the method used to estimate the amount of traffic generated by the Project is described. Then, the results of the intersection level of service calculations for Existing Plus Project Conditions are presented. Existing Plus Project Conditions are defined as Existing Conditions plus traffic generated by the proposed Project. Impacts to the roadway system under this scenario are identified by comparing the level of service results under Existing with Project Conditions to those under Existing Conditions.

## 3.1 PROJECT TRAFFIC ESTIMATES

The amount of traffic added to the roadway system by the proposed development was estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of traffic added to the roadway network. The second step estimates the regional origin and destination areas for trips coming to/going from the Project site. The trips are assigned to specific street segments and intersection turning movements during the third step. The results of the process for the proposed Project are described in the following sections.

### 3.1.1 Trip Generation

Trip generation estimates for the proposed Project were calculated using rates developed from surveys conducted at other Palm Villas facilities. These rates were compared to rates from similar facilities located throughout the United States and published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition (*2017). The surveys were conducted via 48-hour driveway counts at the Palm Villas facilities in Campbell and Redwood City on Wednesday, March 28 and Thursday, March 29, 2018. The daily and AM and PM peak hour driveway volumes based on an average of the two-day counts are presented in **Table 7.**

**TABLE 7: DRIVEWAY COUNTS AT PALM VILLAS FACILITIES**

| Palm Villas Facility | Daily Volume | | | AM Peak Hour Volume | | | PM Peak Hour Volume | | |
|---|---|---|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total | In | Out | Total |
| Redwood City Center | 64 | 42 | 106 | 4 | 5 | 9 | 3 | 3 | 6 |
| Campbell Center | 116 | 105 | 221 | 6 | 7 | 13 | 8 | 10 | 18 |

The driveway volumes were divided by the numbers of beds and building sizes to develop trip generation rates per bed and per 1,000 square feet for each site as presented in **Table 8**. The ITE rates are also presented in **Table 8**.

**TABLE 8: TRIP GENERATION RATES**

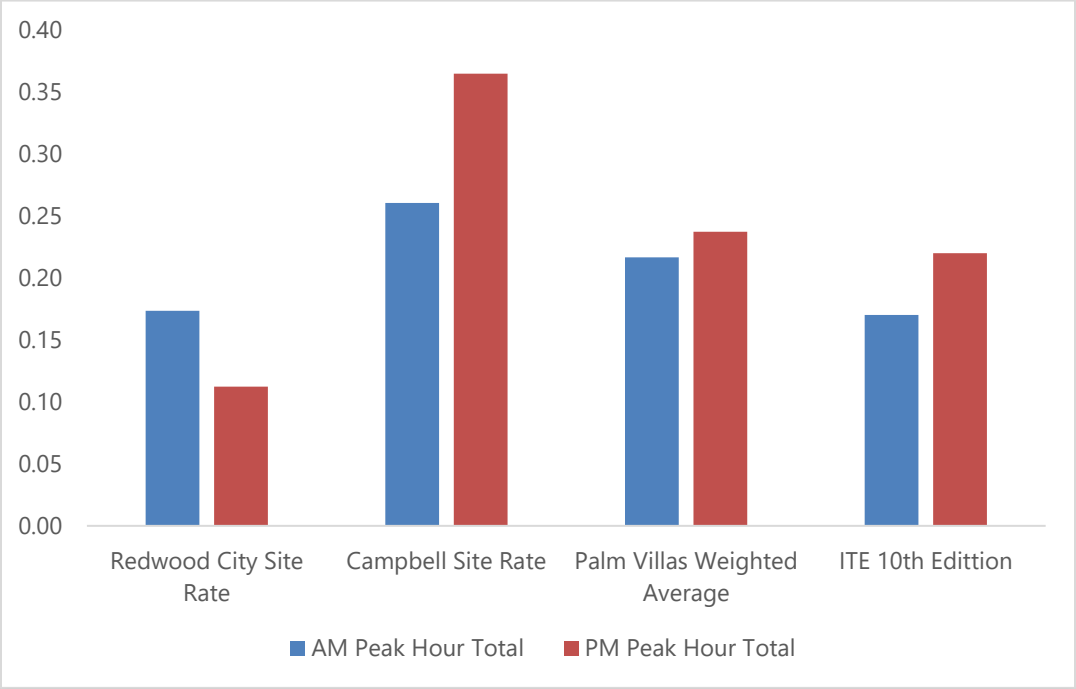
| Rate Source | | Daily Rate | AM Peak Hour Rate | PM Peak Hour Rate |
|---|---|---|---|---|
| | | Total | Total | Total |
| **Palm Villas Surveys** | | | | |
| Campbell Site Rates | Beds | **4.58** | **0.26** | **0.36** |
| | KSF | 10.08 | 0.57 | 0.80 |
| Redwood City Site Rates | Beds | 2.15 | 0.17 | 0.11 |
| | KSF | 5.15 | 0.41 | 0.27 |
| Weighted Average Rates | Beds | 3.36 | 0.22 | 0.24 |
| | KSF | 7.69 | 0.50 | 0.54 |
| **ITE Trip Generation Manual** | | | | |
| 10th Edition Rates | Beds | 3.06 | 0.17 | 0.22 |
| | KSF | 6.64 | 0.55 | 0.59 |

Note: **Bold** texts indicate the trip rates used to estimate the Project trip generation estimates.
Source: Fehr & Peers, April 2019 and (ITE) Trip Generation, 10th Edition.

In general, for nursing homes and care facilities, trip generation rates on a per bed basis provide more-accurate estimates compared to rates on a square footage basis; nursing homes and care facilities with the same number of beds may have different floor areas due to the different interior settings and room sizes. Therefore, for the purpose of this study, trip generation rates on a per bed basis were used to estimate the Project vehicle trip generation.

The AM and PM peak hour Palm Villas survey and ITE 10th Edition trip generation rates per bed are illustrated in **Figure 7.** The Campbell Site rates are higher than the Palm Villas weighted average rates and rates published in ITE 10th Edition.

**Figure 7: Trip Generation Rates per Bed**




We would typically apply the weighted average rates to estimate the vehicle trips generated by the proposed Project. But, for the purpose of this analysis, we utilized the Campbell Site rates to yield conservative results. Using the Campbell Site rates, the Project would generate approximately 21 AM peak hour vehicle trips (9 inbound and 12 outbound) and 28 PM peak hour vehicle trips (12 inbound and 16 outbound) as shown in **Table 9**.

**TABLE 9: PROJECT TRIP ESTIMATES**

| Proposed Project | Daily | | | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total | In | Out | Total |
| Palm Villas Saratoga (79 beds) | 181 | 181 | 362 | 9 | 12 | 21 | 12 | 16 | 28 |

Source: Fehr & Peers, April 2019.

### 3.1.2 Trip Distribution and Assignment

The distribution of the traffic generated by the Project onto the roadway system was based on the locations of complementary land uses, prevailing travel patterns, surrounding population densities, and patterns used in recent TIAs completed in the area. Input from the City of Saratoga staff was used to refine the trip distribution pattern and the result is shown on **Figure 8.**

Project trips were assigned to the roadway network based on the trip distribution pattern discussed above. **Figure 9** shows the AM and PM peak hour Project trips assigned to each turning movement at the study intersections. The trip assignment was added to the existing volumes to establish volumes under Existing Plus Project Conditions, as shown on **Figure 10.**

## 3.2 EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection LOSs were calculated with traffic added by the Project to evaluate the operating conditions of the intersections and identify potential impacts. The results for Existing Plus Project Conditions are presented in **Table 10.** (**Appendix B** contains the corresponding calculation sheets.) The results for Existing Conditions are included for comparison purposes, along with the projected increases in average critical delay and critical volume-to-capacity (V/C) ratios due to the Project. Average critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the most "green time" and have the greatest effect on overall intersection operations. The changes in critical delay and critical V/C ratio between Existing and Existing Plus Project Conditions are used to identify significant impacts.

As shown in **Table 10**, the results indicate that all study intersections operate at acceptable service levels (LOS D or better for City intersections and LOS C or better for Caltrans intersections) during the AM and PM peak hours under Existing Plus Project Conditions.

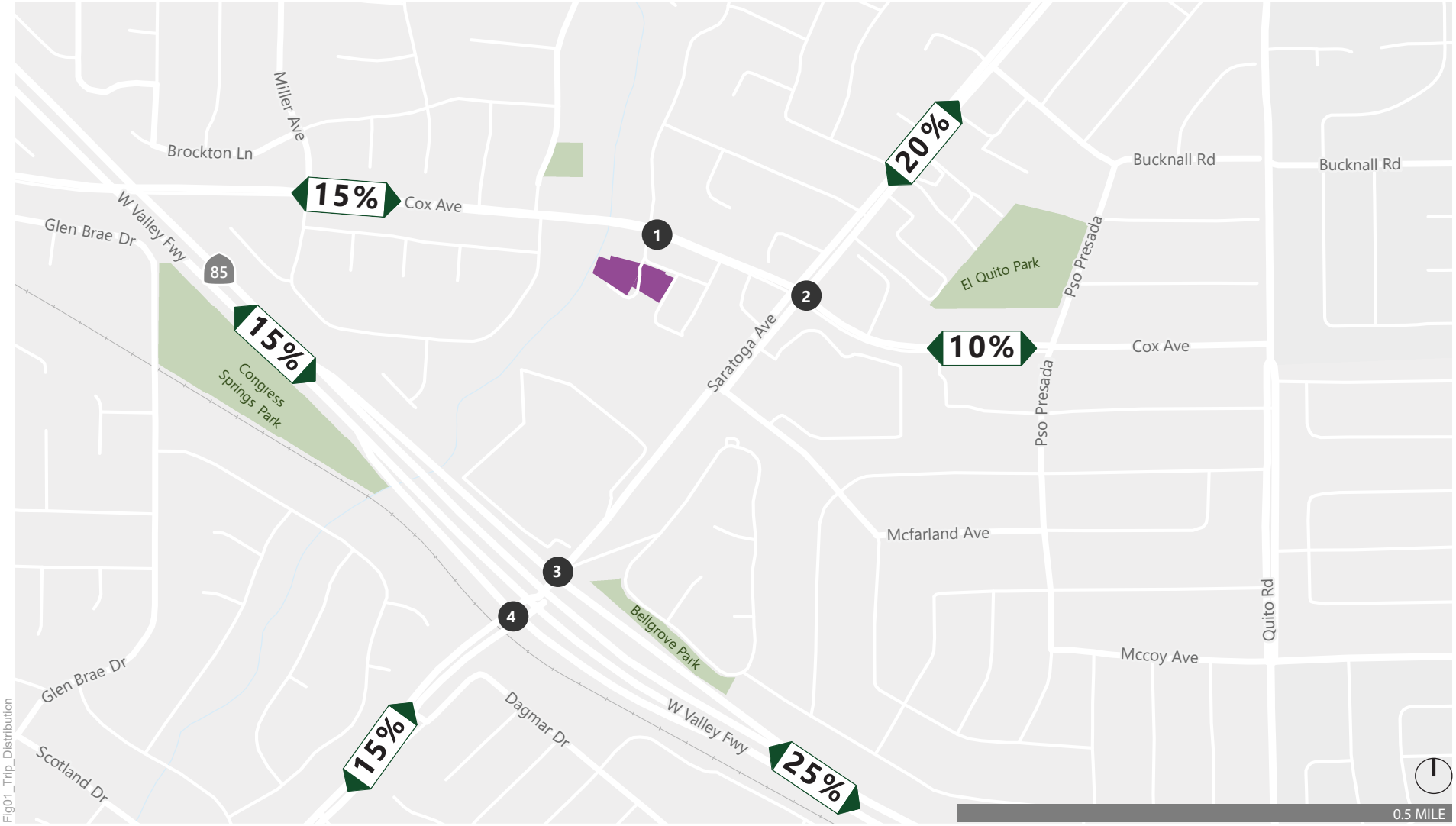
**TABLE 10: EXISTING AND EXISTING PLUS PROJECT CONDITIONS INTERSECTION LEVELS OF SERVICE**

| Intersection Name | | Intersection Control[1] | LOS Standard[2] | Peak Hour[3] | Existing | | Existing Plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Delay[4] | LOS[5] | Delay[4] | LOS[5] | Change in Critical V/C[6] | Change in Average Critical Delay[7] |
| 1 | Cox Avenue / Saratoga Creek Drive | SSSC | D | AM<br>PM | 18.0<br>15.6 | C<br>C | 18.6<br>14.2 | C<br>B | +0.004<br>+0.011 | +0.6<br>-1.4 |
| 2 | Saratoga Avenue / Cox Avenue | Signal | D | AM<br>PM | 33.2<br>38.5 | C-<br>D+ | 33.3<br>38.8 | C-<br>D+ | +0.005<br>+0.007 | +0.1<br>+0.3 |
| 3 | Saratoga Avenue / NB Ramp SR-85 | Signal | C | AM<br>PM | 20.5<br>24.8 | C+<br>C | 20.5<br>24.8 | C+<br>C | +0.002<br>+0.002 | 0.0<br>0.0 |
| 4 | Saratoga Avenue / SB Ramp SR-85 | Signal | C | AM<br>PM | 18.6<br>18.5 | B-<br>B- | 18.7<br>18.6 | B-<br>B- | +0.001<br>+0.002 | +0.1<br>+0.1 |

Notes:
1. Signal = Signalized Intersection; SSSC = Side-Street Stop Controlled Intersection.
2. LOS Standard of intersection's jurisdiction.
3. AM = morning peak hour (between 7:00 and 9:00 AM), PM = evening peak hour (between 4:00 and 6:00 PM).
4. Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
5. LOS = Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.
6. Change in critical volume-to-capacity ratio (V/C) between No Project and Plus Project Conditions.
7. Change in critical movement delay between No Project and Plus Project Conditions.

Source: Fehr & Peers, April 2019.

The intersection of Cox Avenue and Saratoga Creek Drive shows a reduction in average delay with the addition of project traffic, which is counter-intuitive. The average delay values in the table are weighted averages. Weighted average delays will be reduced when traffic is added to a movement with a low delay. For example, if you have one movement with 10 vehicles with a delay of 100 seconds and another movement with 400 vehicles and 10 seconds of delay, the weighted average delay is calculated as (100 seconds X 10 vehicles + 10 seconds X 400 vehicles) /410 vehicles = 12.2 seconds per vehicle. Now if you add 100 vehicles to the movement with 10 seconds of delay, the weight average is calculated as (100 seconds X 10 vehicles + 10 seconds X 500 vehicles)/510 vehicles = 11.8 seconds per vehicle. The weighted average delay improves, even though more vehicles are added.




Project Site

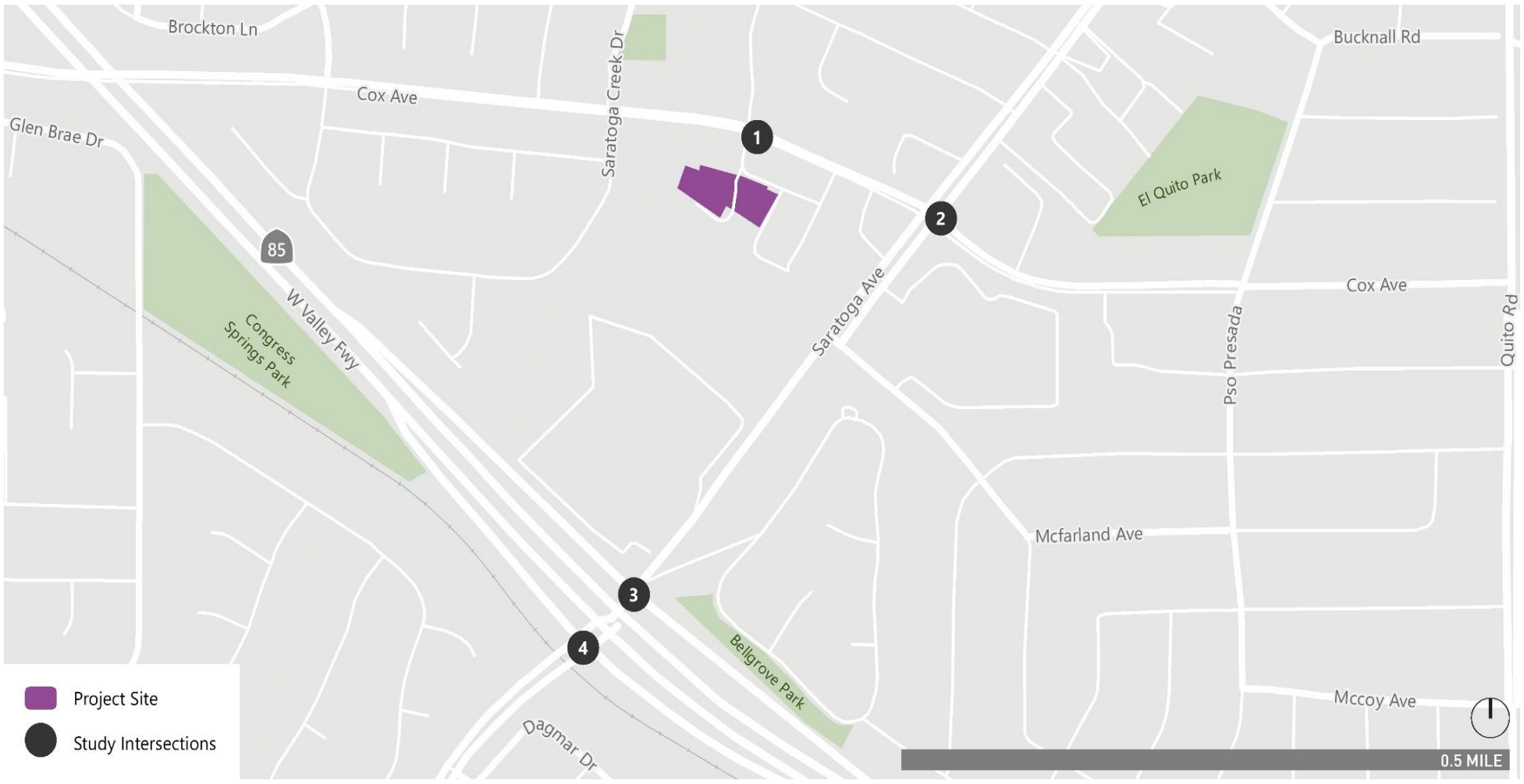
Study Intersections

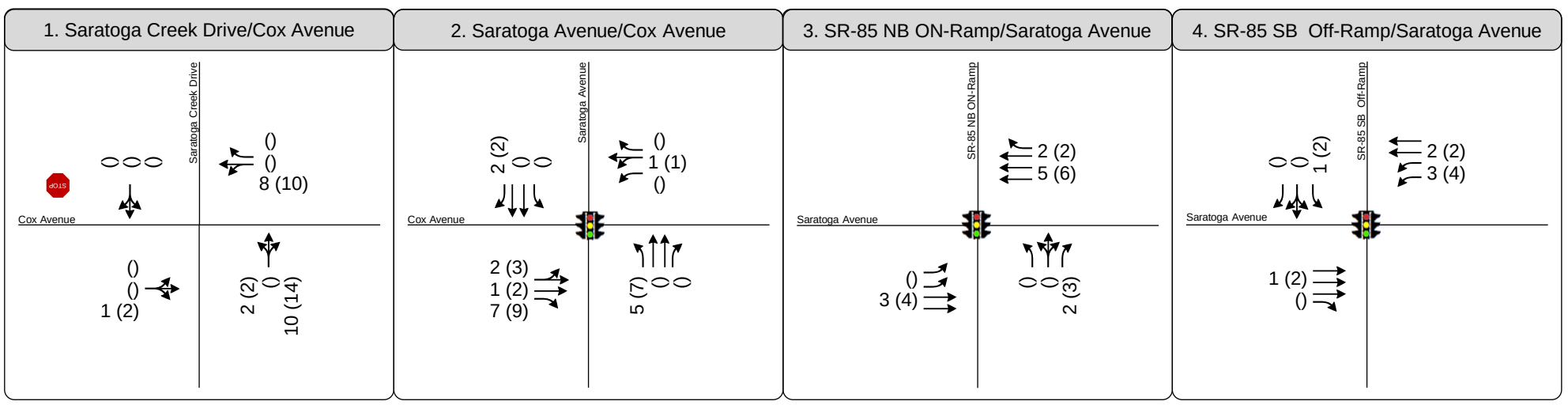
XX% Trip Distribution

Figure 8

## Project Trip Distribution

Palm Villas, Saratoga



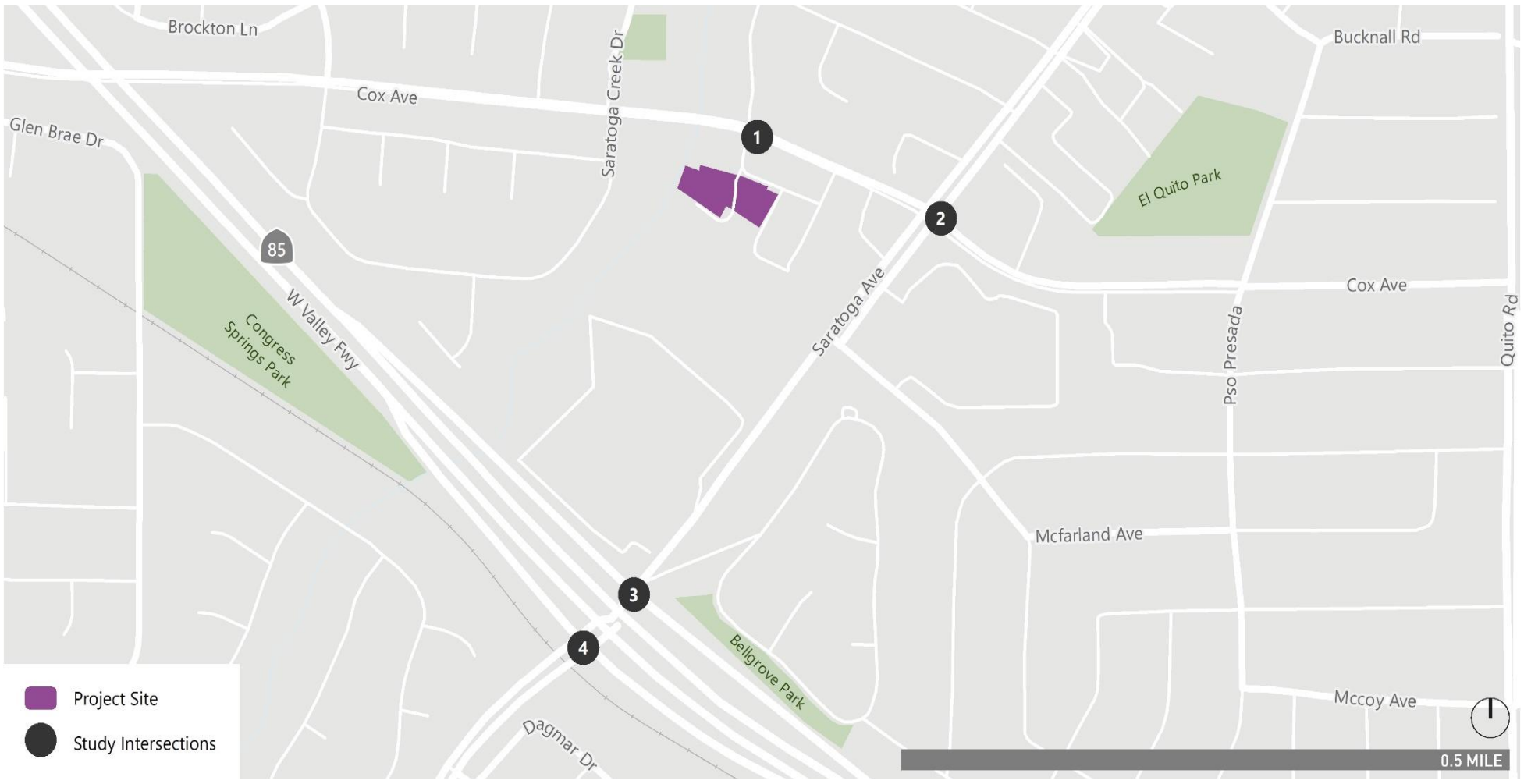



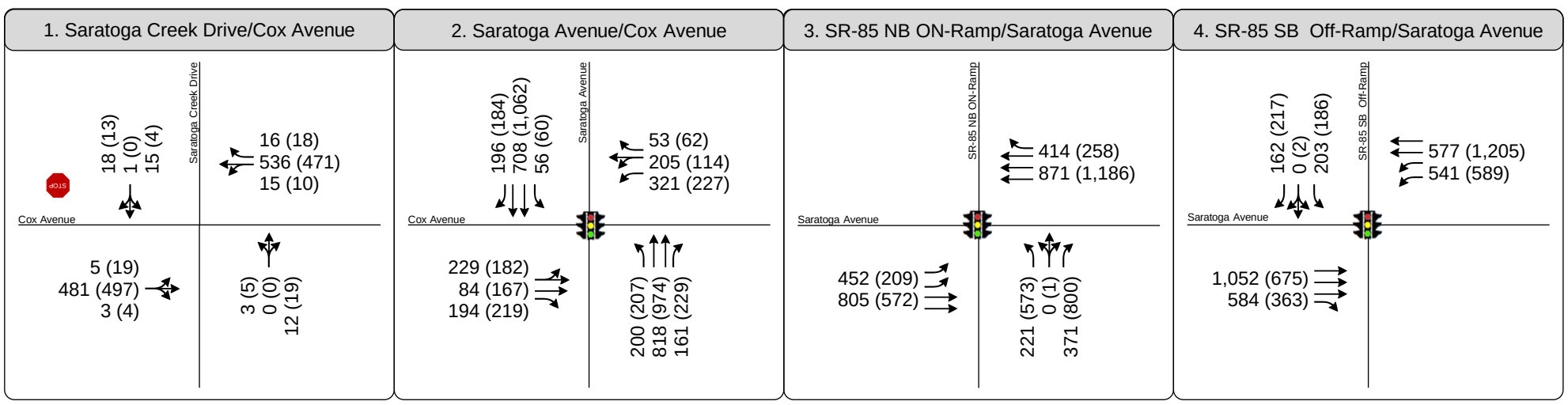

## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 9

# Project Traffic Volume




## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 10

# Existing Plus Project Volumes and Lane Configurations

# 4.0 BACKGROUND CONDITIONS

This chapter presents the results of the LOS calculations under Background Conditions without and with the Project. Traffic volumes for Background No Project Conditions comprise existing volumes plus traffic generated by "approved but not yet built" and "not occupied" developments in the area. Background Plus Project Conditions are defined as Background No Project Conditions plus traffic generated by the Project.

## 4.1 BACKGROUND NO PROJECT TRAFFIC VOLUMES

Staff from the City of Saratoga provided a list of "approved but not yet built" and "not occupied" development projects. Estimates of traffic added to the study intersections by these developments were obtained from their respective TIA reports or estimated based on trip generation rates published in the ITE *Trip Generation Manual* (10th Edition). Vehicle trips for each of the background projects were then assigned to the roadway network based on population and employment data, existing and estimated future travel patterns, and recent TIAs completed in the area.

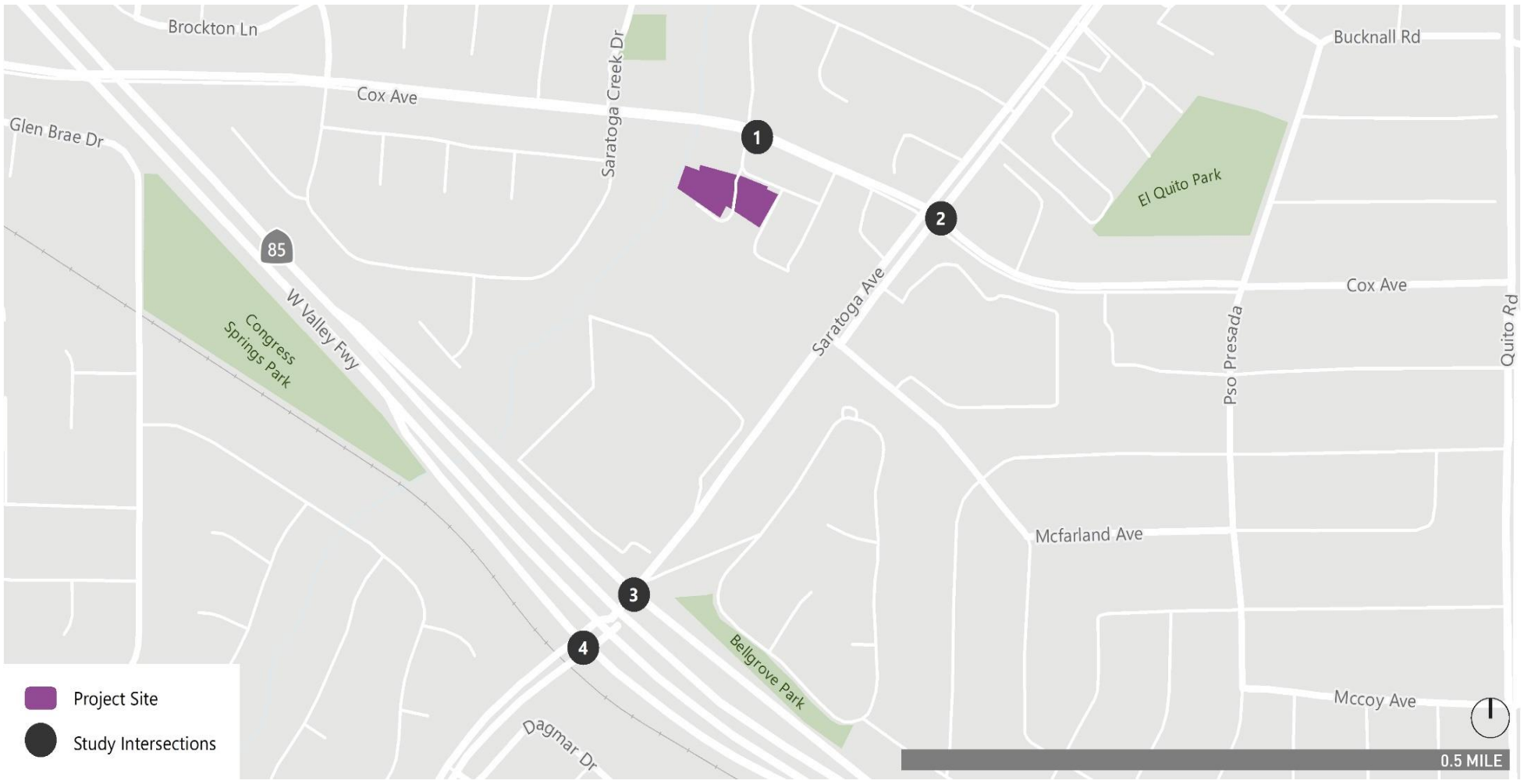
**Appendix C** contains a full list of approved and not occupied projects included in the background volume estimates. The trips for each of the background projects were added to the existing volumes discussed in **Chapter 2** to represent Background No Project Conditions, as shown in **Figure 11.**

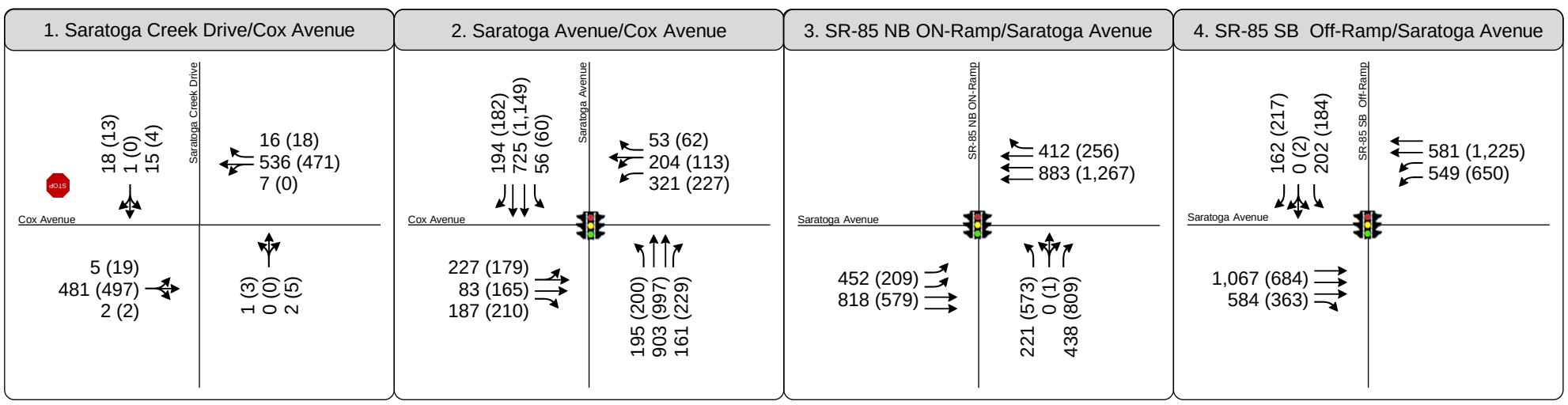
## 4.2 BACKGROUND NO PROJECT ROADWAY IMPROVEMENTS

Under Background Conditions, there are no foreseeable transportation network improvements identified for the study area including those under construction or fully funded modifications.

## 4.3 BACKGROUND PLUS PROJECT TRAFFIC VOLUMES

Trips generated from the Project were added to the background traffic projections to develop traffic volumes for Background Plus Project Conditions. The resulting volumes are shown on **Figure 12.**



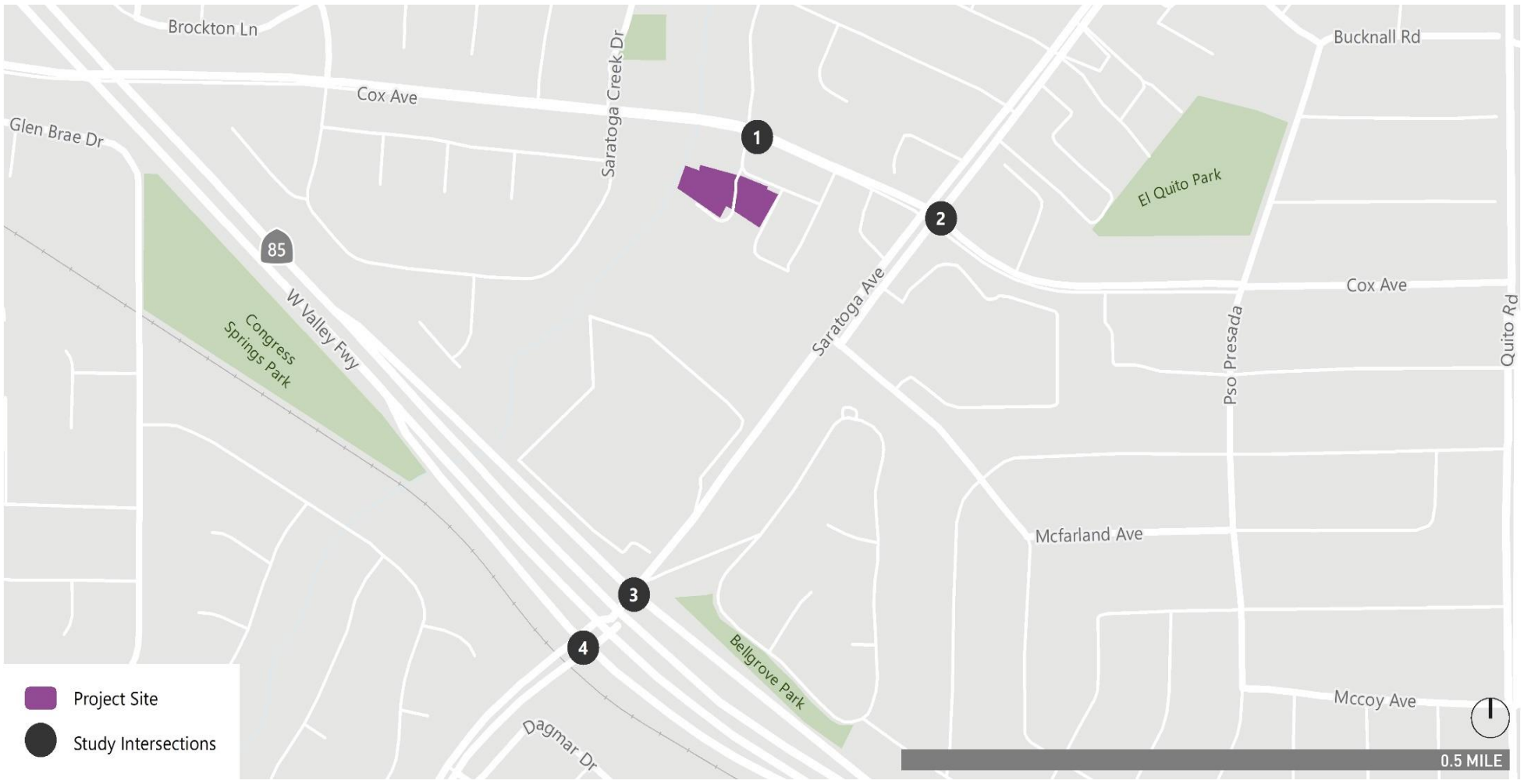



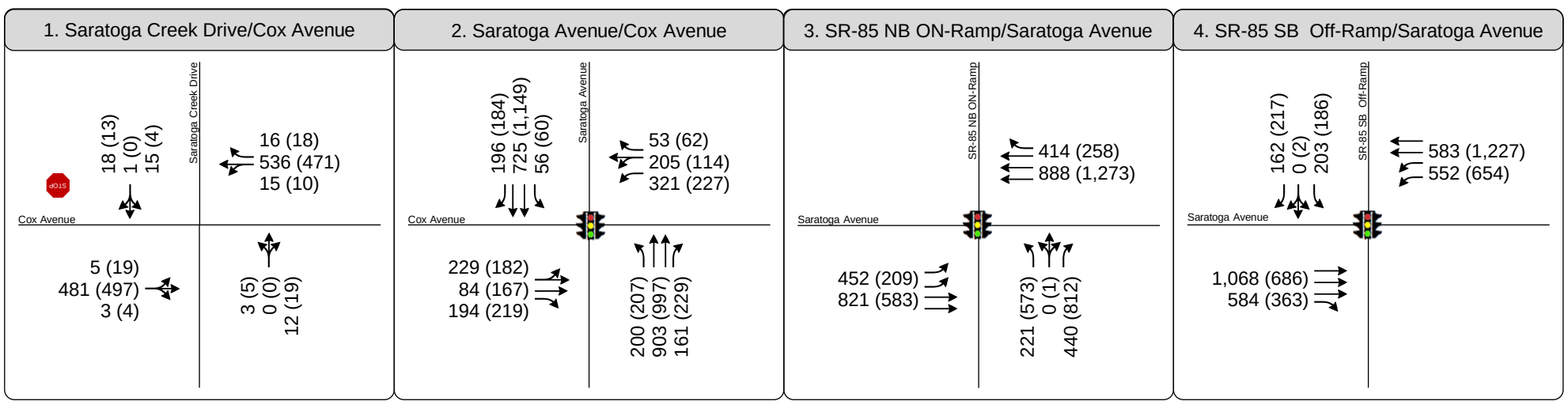

## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 11

# Background No Project Volumes and Lane Configurations




## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 12

# Background Plus Project Volumes and Lane Configurations

## 4.4 BACKGROUND INTERSECTION LEVELS OF SERVICE

**Table 11** presents the delays, levels of service, and impact criteria metrics for the study intersections under Background No Project and Background Plus Project Conditions. **Appendix B** contains the corresponding calculation sheets. As shown in **Table 11**, the results indicate that all study intersections operate at acceptable service levels (generally LOS D or better for City intersections and LOS C or better for Caltrans intersections) during the AM and PM peak hours under Background Plus Project Conditions.

**TABLE 11: BACKGROUND NO PROJECT AND BACKGROUND PLUS PROJECT CONDITIONS INTERSECTION LEVELS OF SERVICE**

| Intersection Name | | Intersection Control[1] | LOS Stan-dard[2] | Peak Hour[3] | Background | | Background Plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Delay[4] | LOS[5] | Delay[4] | LOS[5] | Change in Critical V/C[6] | Change in Average Critical Delay[7] |
| 1 | Cox Avenue / Saratoga Creek Drive | SSSC | D | AM<br>PM | 18.0<br>15.6 | C<br>C | 18.6<br>14.2 | C<br>B | +0.004<br>+0.011 | +0.6<br>-1.4 |
| 2 | Saratoga Avenue / Cox Avenue | Signal | D | AM<br>PM | 32.8<br>38.1 | C-<br>D+ | 33.0<br>38.4 | C-<br>D+ | +0.002<br>+0.007 | +0.2<br>+0.3 |
| 3 | Saratoga Avenue / NB Ramp SR-85 | Signal | C | AM<br>PM | 21.3<br>25.0 | C+<br>C | 21.3<br>25.0 | C+<br>C | +0.002<br>+0.002 | 0.0<br>0.0 |
| 4 | Saratoga Avenue / SB Ramp SR-85 | Signal | C | AM<br>PM | 18.7<br>18.8 | B-<br>B- | 18.8<br>18.8 | B-<br>B- | +0.002<br>+0.002 | +0.1<br>0.0 |

Notes:
1. Signal = Signalized Intersection; SSSC = Side-Street Stop Controlled Intersection.
2. LOS Standard of intersection's jurisdiction.
3. AM = morning peak hour (between 7:00 and 9:00 AM), PM = evening peak hour (between 4:00 and 6:00 PM).
4. Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
5. LOS = Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.
6. Change in critical volume-to-capacity ratio (V/C) between No Project and Plus Project Conditions.
7. Change in critical movement delay between No Project and Plus Project Conditions.

Source: Fehr & Peers, April 2019.

As discussed under Existing plus Project Conditions, the intersection of Cox Avenue and Saratoga Creek Drive shows a reduction in average delay with the addition of project traffic, which is counter-intuitive. The average delay values in the table are weighted averages. Weighted average delays will be reduced when traffic is added to a movement with a low delay.

# 5.0 CUMULATIVE CONDITIONS

This chapter presents the results of the level of service (LOS) calculations under Cumulative Conditions without and with the Project. Cumulative No Project Conditions are defined as projected conditions in 2040. Traffic volumes for Cumulative No Project Conditions are comprised of existing volumes, added background volumes, volumes from pending ("not yet approved") developments in the area, plus an annual compounded growth factor that is applied to the existing volumes. Cumulative Plus Project Conditions are defined as Cumulative No Project Conditions plus traffic generated by the Project.

## 5.1 CUMULATIVE NO PROJECT TRAFFIC VOLUMES

### 5.1.1 Approved, Not Occupied, and Pending Projects

In addition to the vehicle trips from "approved but not yet built" and "not occupied" development projects discussed under Background Conditions, vehicle trips from pending development projects were considered. **Appendix C** contains a full list of the included pending projects. As with the approved developments, trip generation estimates from the pending development projects that would add traffic to the study intersections were estimated based on trip generation rates published in the ITE *Trip Generation Manual* (10$^{th}$ Edition). The trips for each of the pending projects were then assigned to the roadway network based on population and employment data, existing and estimated future travel patterns, and recent TIAs completed in the area.

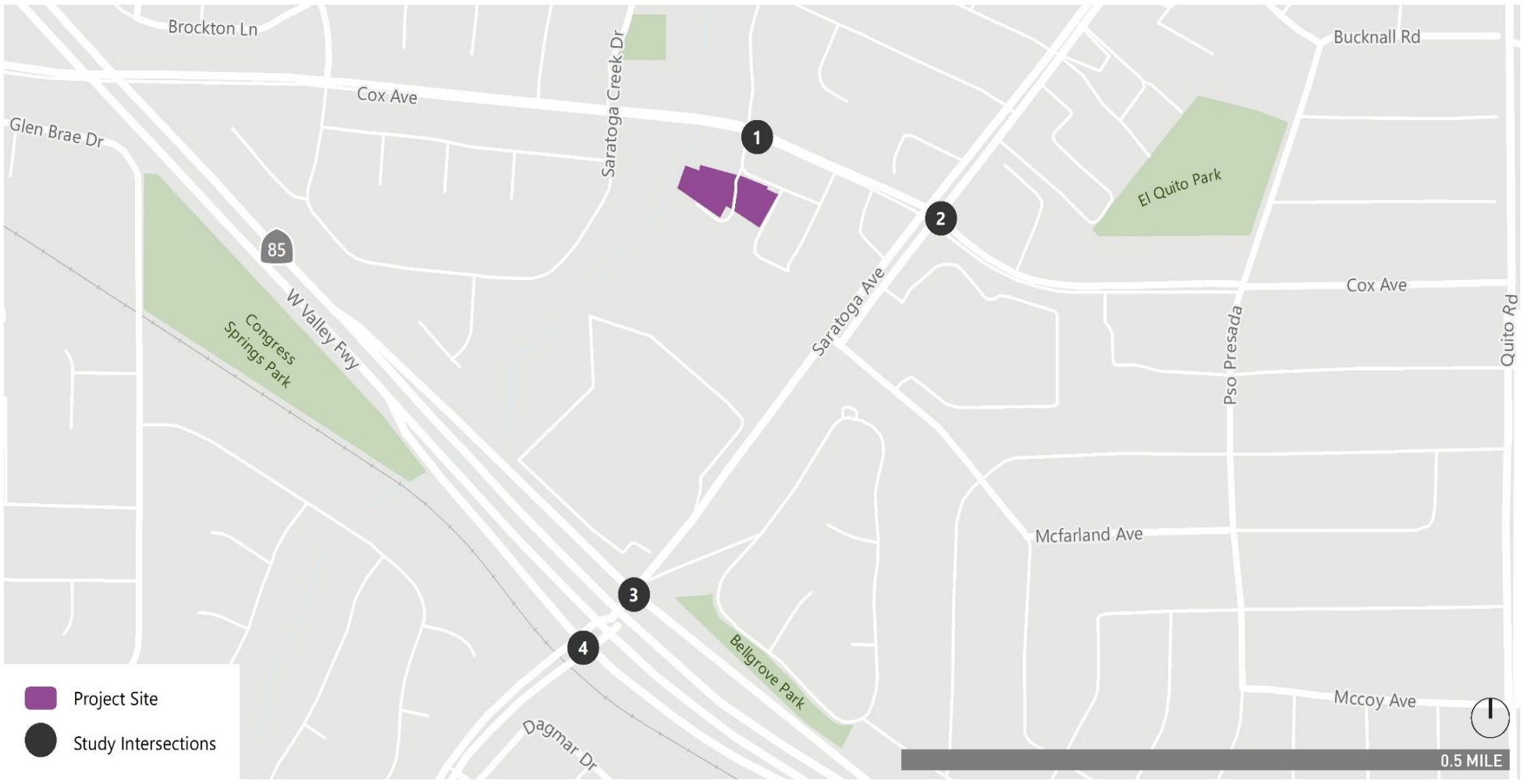
To account for regional growth not accounted for in the approved and pending developments, a 1% annual growth factor was applied to the existing volumes at the study intersections. The trips for each of the approved, not occupied, and pending development projects were then added to the increased existing volumes to represent Cumulative No Project Conditions, as shown on **Figure 13.**

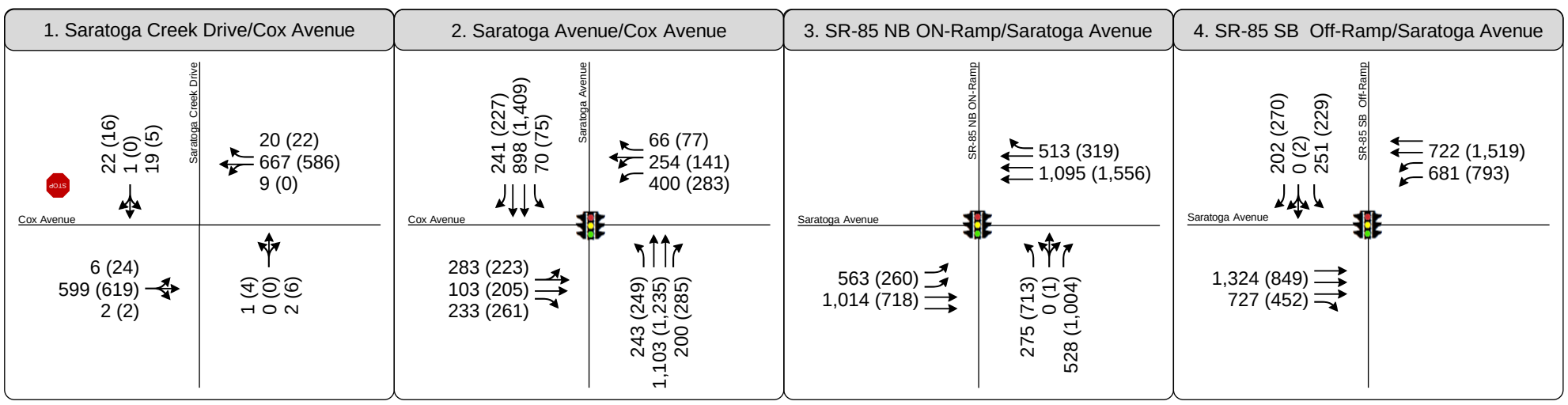
## 5.2 CUMULATIVE IMPROVEMENTS

Under Cumulative Conditions, there are no reasonably foreseeable transportation network improvements identified for the study area.

## 5.3 CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES

Vehicle trips generated from the Project and presented on **Figure 9** were added to the Cumulative No Project traffic projections to develop traffic volumes for Cumulative Plus Project Conditions. The resulting volumes are shown on **Figure 14.**



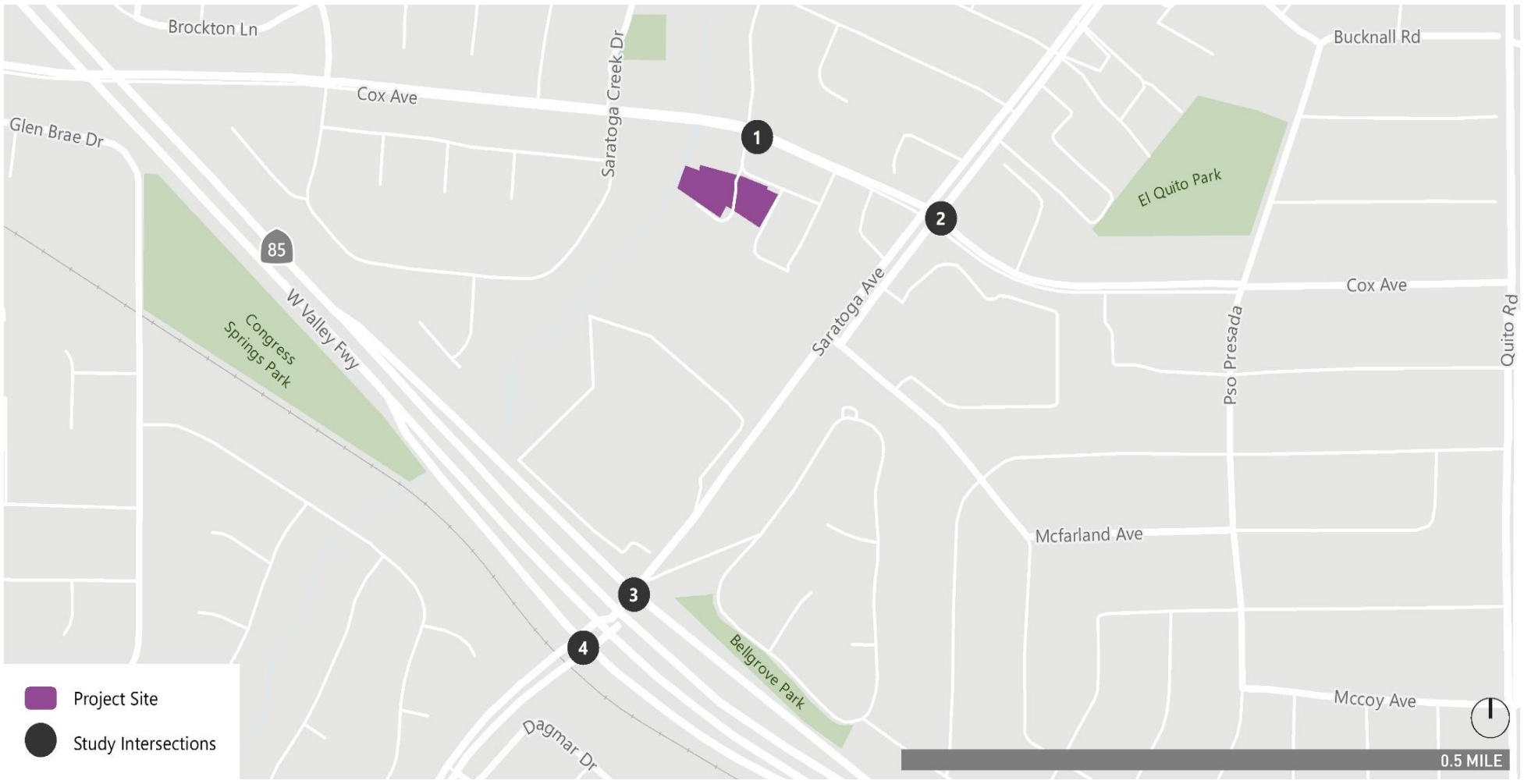



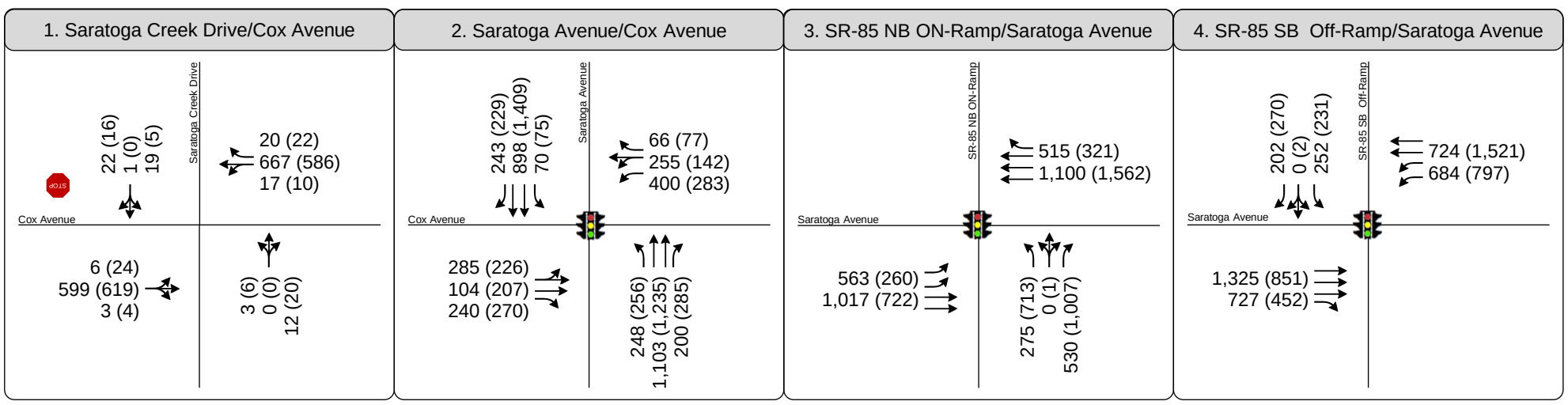

## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 13

Cumulative No Project volumes and Lane Configurations




## LEGEND

| | | | |
|---|---|---|---|
| 1 | Study Intersection | AM (PM) | Peak Hour Traffic Volume |
| | Turn Lane | STOP | Stop Sign |
| | | | Traffic Signal |

Figure 14

Cumulative with Project Volumes and Lane Configurations

## 5.4 CUMULATIVE INTERSECTION LEVELS OF SERVICE

**Table 12** shows the delays, levels of service, and impact criteria metrics for the study intersections under Cumulative No Project and Cumulative Plus Project Conditions. **Appendix B** contains the corresponding calculation sheets. The results indicate that all study intersections operate at acceptable levels of service (LOS D or better for City intersections and LOS C or better for Caltrans intersections) under Cumulative Plus Project Conditions during the AM and PM peak hours.

**TABLE 12: CUMULATIVE NO PROJECT AND CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION LEVELS OF SERVICE**

| Intersection Name | | Intersection Control[1] | LOS Stan-dard[2] | Peak Hour[3] | Cumulative | | Cumulative Plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Delay[4] | LOS[5] | Delay[4] | LOS[5] | Change in Critical V/C[6] | Change in Average Critical Delay[7] |
| 1 | Cox Avenue / Saratoga Creek Drive | SSSC | D | AM<br>PM | 25.7<br>20.7 | D<br>C | 26.9<br>18.2 | D<br>C | +0.009<br>+0.011 | +1.2<br>-2.5 |
| 2 | Saratoga Avenue / Cox Avenue | Signal | D | AM<br>PM | 38.1<br>43.8 | D+<br>D | 38.3<br>44.2 | D+<br>D | +0.005<br>+0.007 | +0.2<br>+0.4 |
| 3 | Saratoga Avenue / NB Ramp SR-85 | Signal | C | AM<br>PM | 23.0<br>30.5 | C<br>C | 23.0<br>30.6 | C<br>C | +0.001<br>+0.003 | 0.0<br>+0.1 |
| 4 | Saratoga Avenue / SB Ramp SR-85 | Signal | C | AM<br>PM | 21.3<br>20.6 | C+<br>C+ | 21.4<br>20.6 | C+<br>C+ | +0.001<br>+0.002 | +0.1<br>0.0 |

Notes:
1. Signal = Signalized Intersection; SSSC = Side-Street Stop Controlled Intersection.
2. LOS Standard of intersection's jurisdiction.
3. AM = morning peak hour (between 7:00 and 9:00 AM), PM = evening peak hour (between 4:00 and 6:00 PM).
4. Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
5. LOS = Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the *2000 HCM*.
6. Change in critical volume-to-capacity ratio (V/C) between No Project and Plus Project Conditions.
7. Change in critical movement delay between No Project and Plus Project Conditions.

Source: Fehr & Peers, April 2019.

As discussed previously, the intersection of Cox Avenue and Saratoga Creek Drive shows a reduction in average delay with the addition of project traffic, which is counter-intuitive. The average delay values in the table are weighted averages. Weighted average delays will be reduced when traffic is added to a movement with a low delay.

# 6.0 SITE ACCESS, ON-SITE CIRCULATION, PARKING, MULTI-MODAL TRANSPORTATION

This chapter discusses accessing and navigating the Project site for all travel modes. Topics discussed include site-access and on-site circulation and parking.

## 6.1 SITE ACCESS & ON-SITE CIRCULATION

The site plan for the proposed Project in **Figure 2**, shows the locations of the Project driveways and the internal circulation systems for vehicular and pedestrian traffic. The driveways and site circulation for each building is discussed below.

### 6.1.1 Vehicular Site Access

The proposed Project includes an extension of Saratoga Creek Drive south of Cox Avenue to provide access to the property. From its present terminus, Saratoga Creek Drive would be extended by 140 feet and run down the center of the Project site. Currently, the south leg of Saratoga Creek Drive serves two existing professional office buildings on either side of the roadway and provides access to their rear parking lots.

The roadway extension would provide secondary access to the vacant lots immediately south of the Project site, which are currently accessible from Village Drive and Saratoga Drive. The roadway extension was previously approved under the original Tentative Subdivision Map Approval in 2000 but was not built.

The vehicular access to Building 1 is provided via three driveways along west side of Saratoga Creek Drive; one inbound-outbound driveway to access the underground parking ramp and one circular driveway providing access to surface parking spaces and the building entrance. This driveway would be used for passenger pick-up/drop-off and for use by deliveries and emergency vehicles. Likewise, two inbound-outbound driveways along east side of the Saratoga Creek Drive would provide access to Building 2; the northern driveway would provide access to the underground parking ramp and the southern driveway would provide access to the common parking lot.

### 6.1.2 Pedestrian Site Access and On-Site Circulation

The two proposed buildings have been designed to function as a single complex. Therefore, there will be pedestrians crossing Saratoga Creek Drive to travel between the two buildings. Currently there are no pedestrian crossing facilities proposed across the Saratoga Creek Drive. Thus, to improve pedestrian circulation, physical pedestrian improvements should be further evaluated. 2017 *FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations* includes the following physical enhancements.

- High visibility crosswalk markings

- Advance pedestrian crossing yield markings (sharks teeth)
- Advanced signage
- Pedestrian Hybrid Beacon (PHB) or Rapid Rectangular Flashing Beacons (RRFB)

Further evaluation of roadway physical conditions and the pedestrian and vehicle volumes is required to determine which improvements would be appropriate.

## 6.2 PARKING

This section of the report discusses both vehicle and bicycle parking requirements for the Project.

### 6.2.1 Parking Supply

Per the proposed site plan, the parking in each building would be accessed from driveway ramps from the Saratoga Creek Drive extension. The PA Zone District requires one loading space per building between 5,000 and 50,000 square feet, and the loading area is located on Lot 2.

A total of 47 parking spaces are proposed: 22 spaces on Lot 1 and 25 spaces on Lot 2. The basement level of Lot 1 would contain 19 parking spaces, storage space, electrical rooms, pantry, break room, and a laundry area. There would be 22 total parking spaces serving Lot 1; two (2) would be accessible and conform to the Americans with Disabilities Act (ADA) standards (refer to Figure 2-4, Lot 1 Site Plan). The basement level of Lot 2 would contain 10 parking spaces, electrical rooms, laundry area, and an activities office, and a break/storage room. There would be 25 total parking spaces serving Lot 2; two (2) would be accessible and conform to ADA standards and one (1) would be a designated van-accessible parking space (refer to Figure 2-5, Lot 2 Site Plan). The proposed Project would include a Parking Sharing Contract between the buildings to ensure that all 47 parking spaces on the site would be available on a shared basis for the proposed facility. Under City Code Section 15-35.020(d), off-street parking requirements may be satisfied by a common parking facility; provided, that the total number of spaces shall be not less than the sum of the individual requirements, and provided further, that a contract between the parties setting forth the agreement for joint use of a common parking facility is recorded in the office of the County Recorder and a certified copy filed with the City.

### 6.2.2 Vehicle Parking Requirements

*Chapter 15.35.030 Schedule of off-street parking spaces* of the City of Saratoga Municipal Code guides the parking requirements for the Project site. The minimum parking ratio for nursing homes is one space for each three beds, one space for each two doctors providing medical services on a regular basis, and one space for each two employees. The Project vehicle parking requirements are summarized in **Table 13**.

**TABLE 13: VEHICLE PARKING REQUIREMENT**

| Parking Requirement Component | Project Size | Parking Rate | Required Minimum Vehicle Parking Supply |
|---|---|---|---|
| Beds | 79 | one space for each three beds | 26 |
| Employees and doctors | 21 | one space for each two employees | 11 |
| **Total** | | | **37** |

Source: Fehr & Peers, April 2019. Saratoga Municipal Code Chapter 15.35.

Based on the City's parking requirements, the Project is required to provide 37 vehicle parking spaces. The parking supply of 47 spaces meets and exceeds the City's requirements.

### 6.2.3 Parking Occupancy Survey

A supplemental parking data collection was conducted at the existing Palm Villas facility located at 3333 S Bascom Avenue in Campbell, California to evaluate the parking demand rate at this facility. The parking occupancy survey was collected in 30 minutes interval during peak demand periods from 8:00 AM to 9:00 AM, 11:00 AM to 1:00 PM, and 4:00 PM to 5:00 PM on Thursday June 20th and Tuesday June 25th, 2019. The results of survey shows that parking occupancy peaked between 11:00 AM to 1:00 PM on both days. The average parking demand during the peak period was observed to be below (93%) parking supply (15 parking spaces including 13 regular and 2 ADA).

**Table 14** shows the observed parking occupancy during the peak periods at the Bascom facility.

**TABLE 14: VEHICLE PARKING OCCUPANCY**

| Observed Peak periods | Average Number of Occupied Parking Spaces | Average Parking Occupancy (%) |
|---|---|---|
| *8:00 AM – 9:00 AM* | *2* | 13% |
| *11:00 AM – 1:00 PM* | *14* | 93% |
| *4:00 PM – 5:00 PM* | *11* | 73% |

Source: Fehr & Peers, June 2019

Given the total number of 48 beds in Bascom facility and an observed parking occupancy of 93% during the peak demand period, the parking demand rate would be 0.29 parking spaces per bed. In general, a cushion of 5-15 percent circulation factor in the parking supply is a standard practice to account for vehicle (space) turnover. Given the small size of the Palm Villas development, a 5 percent circulation factor is applied to the observed parking demand rate. Therefore, considering the 5 percent circulation factor, the peak parking demand rate would be 0.3.

Based on parking demand rate of 0.3 parking spaces per bed, the proposed project should provide minimum of 24 parking spaces. The proposed parking supply of 47 spaces exceeds the observed parking demand at the similar facility (Bascom Palm Villas).

### 6.2.4 Bicycle Parking Requirements

There are no specific bicycle parking requirements for nursing homes within the City of Saratoga Municipal Code. However, per VTA Bicycle Technical Guideline, one class I bicycle parking per 30 employees is recommended for similar land uses. Class I bicycle parking protects the entire bicycle and its components from theft, vandalism or inclement weather. Examples include bike lockers and bike rooms.

## 6.3 PEDESTRIAN AND BICYCLE IMPACTS

Pedestrian and bicycle impacts are considered significant if the Project would potentially disrupt existing pedestrian and bicycle facilities, eliminate existing pedestrian and/or bicycle facilities, interfere with planned pedestrian and bicycle facilities, increase conflicts between drivers, pedestrians, and/or bicyclists, or create inconsistencies or conflicts with adopted pedestrian and bicycle plans, guidelines, policies, or standards.

The site access and on-site circulation section discusses specific pedestrian recommendations for the Project site. As the Project relates to the surrounding pedestrian and bicycle network, the Project would not exceed the City's criteria for pedestrian and bicycle impacts and no mitigation measures are required.

# 7.0 OTHER TRANSPORTATION EVALUATIONS

This chapter discusses additional transportation evaluations conducted for the Project, including transit vehicle delay, and left-turn queuing analysis.

## 7.1 TRANSIT VEHICLE DELAY

The addition of Project traffic and associated congestion could result in additional delay to transit vehicles operating along the Saratoga Avenue corridor. The through and turning movement delays along this corridor (from the detailed calculation sheets presented in **Appendix B**) were used to determine the potential added transit vehicle delay. The difference between the No Project and Plus Project values for Existing, Background, and Cumulative conditions is the added transit vehicle delay. Overall, the added transit delay along Saratoga Avenue is less than one second for all scenarios. The City of Saratoga and the VTA do not have adopted standards related to transit corridor performance associated with congestion resulting from new development projects. Per the VTA TIA Guidelines (dated October 2014), *if increased transit vehicle delay is found, the Lead Agency [City of Saratoga] should work with VTA to identify feasible transit priority measures near the affected facility and include contributions to any applicable projects that improve transit speed and reliability in the TIA*.

## 7.2 LEFT-TURN QUEUING ANALYSIS

The addition of Project traffic along the roadway network has the potential to add vehicles to left-turn movements, causing left-turn queues to exceed the turn pocket storage lengths. Queues that exceed the turn pocket storage length have the potential to impede adjacent through traffic movements. Potentially affected study intersection movements were selected for this evaluation based on where the Proposed Project would add the most left turning vehicles during either the AM or PM peak hour. The following intersection and movements were selected:

- Saratoga Avenue / Cox Avenue (#2) – Northbound left-turn pocket & Eastbound left-turn pocket

**Table 15** compares the 95$^{th}$ percentile left-turn queues from TRAFFIX between No Project and Plus Project scenarios under Existing and Background Conditions. Per TIA guidelines, the queuing evaluation is required for only the near-term analysis and was not conducted for Cumulative Conditions. Both northbound left turn and eastbound left turn movements have projected 95$^{th}$ percentile queue lengths that exceed the left-turn storage. Recommended improvements are summarized in **Table 15.**

It should be noted that the City of Saratoga is currently in the process of updating the signals at 15 locations within the City, including the signal at Saratoga Avenue/Cox Avenue. The traffic signal upgrade includes the development of an interconnected traffic signal system that allows real-time monitoring and control of all traffic signals in the City from a cloud-based system.

**TABLE 15: LEFT-TURN VEHICLE QUEUE ANALYSIS**

| Intersection | | Movement | Available Storage Length[1] (feet) | Peak Hour | Number of Project Trips Added[5] | Projected Queue Length (feet)[2] | | Improvements |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Existing (Existing Plus Project) | Background (Background Plus Project) | |
| 2 | Saratoga Avenue / Cox Avenue | NBL | 270 | AM | 5 | **300 (300)** | **300 (325)** | Implement Intelligent Transportation System (ITS) improvements, such as adaptive signal control, advanced signal loop detectors or video image detectors, to improve signal operations and reduce queuing.[4] |
| | | | | PM | 7 | **425 (425)** | **425 (450)** | |
| | | EBL | 220 | AM | 2 | **375 (400)** | **375 (375)** | Implement ITS improvements, such as adaptive signal control, advanced signal loop detectors or video image detectors, to improve signal operations and reduce queuing. |
| | | | | PM | 3 | **425 (450)** | **450 (450)** | |

Notes:
1. Maximum storage length for single lane. Where no pocket exists, the length of the left-turn lane is reported.
2. 95% queue length for single lane with longest queue. Assumes 25 feet per vehicle in queue.
3. **Bold** text indicates available storage is exceeded.
4. While the northbound left-turn median could be extended by approximately 80 feet by narrowing the existing median; this would require removal of a mature oak tree and was not recommended for improvement
Source: Fehr & Peers, April 2019.

# APPENDIX A: EXISTING TRAFFIC COUNTS

# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 1AM FINAL
Site Code : 00000001
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SARATOGA CREEK DR Southbound | | | | | COX AVE Westbound | | | | | SARATOGA CREEK DR Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 3 | 0 | 3 | 0 | 50 | 1 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 47 | 101 |
| 07:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 70 | 2 | 0 | 72 | 1 | 0 | 0 | 0 | 1 | 1 | 62 | 2 | 0 | 65 | 139 |
| 07:30 AM | 5 | 0 | 3 | 0 | 8 | 2 | 76 | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 1 | 87 | 0 | 0 | 88 | 174 |
| 07:45 AM | 8 | 0 | 6 | 2 | 16 | 5 | 130 | 0 | 0 | 135 | 0 | 0 | 0 | 0 | 0 | 1 | 121 | 0 | 0 | 122 | 273 |
| Total | 14 | 0 | 12 | 2 | 28 | 7 | 326 | 3 | 0 | 336 | 1 | 0 | 0 | 0 | 1 | 3 | 317 | 2 | 0 | 322 | 687 |
| 08:00 AM | 2 | 1 | 5 | 0 | 8 | 5 | 135 | 2 | 0 | 142 | 1 | 0 | 0 | 0 | 1 | 1 | 123 | 1 | 0 | 125 | 276 |
| 08:15 AM | 5 | 0 | 2 | 1 | 8 | 1 | 156 | 1 | 0 | 158 | 1 | 0 | 1 | 2 | 4 | 0 | 128 | 4 | 0 | 132 | 302 |
| 08:30 AM | 3 | 0 | 2 | 0 | 5 | 5 | 115 | 4 | 0 | 124 | 0 | 0 | 0 | 1 | 1 | 0 | 109 | 0 | 0 | 109 | 239 |
| 08:45 AM | 4 | 1 | 6 | 4 | 15 | 3 | 126 | 4 | 0 | 133 | 1 | 1 | 0 | 3 | 5 | 1 | 109 | 1 | 0 | 111 | 264 |
| Total | 14 | 2 | 15 | 5 | 36 | 14 | 532 | 11 | 0 | 557 | 3 | 1 | 1 | 6 | 11 | 2 | 469 | 6 | 0 | 477 | 1081 |
| Grand Total | 28 | 2 | 27 | 7 | 64 | 21 | 858 | 14 | 0 | 893 | 4 | 1 | 1 | 6 | 12 | 5 | 786 | 8 | 0 | 799 | 1768 |
| Apprch % | 43.8 | 3.1 | 42.2 | 10.9 | | 2.4 | 96.1 | 1.6 | 0 | | 33.3 | 8.3 | 8.3 | 50 | | 0.6 | 98.4 | 1 | 0 | | |
| Total % | 1.6 | 0.1 | 1.5 | 0.4 | 3.6 | 1.2 | 48.5 | 0.8 | 0 | 50.5 | 0.2 | 0.1 | 0.1 | 0.3 | 0.7 | 0.3 | 44.5 | 0.5 | 0 | 45.2 | |
| Lights | 28 | 2 | 27 | 7 | 64 | 21 | 848 | 14 | 0 | 883 | 4 | 1 | 1 | 6 | 12 | 5 | 776 | 6 | 0 | 787 | 1746 |
| % Lights | 100 | 100 | 100 | 100 | 100 | 100 | 98.8 | 100 | 0 | 98.9 | 100 | 100 | 100 | 100 | 100 | 100 | 98.7 | 75 | 0 | 98.5 | 98.8 |
| Buses | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 6 |
| % Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0 | 0.4 | 0.3 |
| Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 2 | 0 | 9 | 16 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 25 | 0 | 1.1 | 0.9 |

| | SARATOGA CREEK DR Southbound | | | | COX AVE Westbound | | | | SARATOGA CREEK DR Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | **8** | 0 | **6** | **14** | **5** | 130 | 0 | 135 | 0 | 0 | 0 | 0 | **1** | 121 | 0 | 122 | 271 |
| 08:00 AM | 2 | **1** | 5 | 8 | 5 | 135 | 2 | 142 | **1** | 0 | 0 | 1 | 1 | 123 | 1 | 125 | 276 |
| 08:15 AM | 5 | 0 | 2 | 7 | 1 | **156** | 1 | **158** | 1 | 0 | **1** | **2** | 0 | **128** | **4** | **132** | **299** |
| 08:30 AM | 3 | 0 | 2 | 5 | 5 | 115 | **4** | 124 | 0 | 0 | 0 | 0 | 0 | 109 | 0 | 109 | 238 |
| Total Volume | 18 | 1 | 15 | 34 | 16 | 536 | 7 | 559 | 2 | 0 | 1 | 3 | 2 | 481 | 5 | 488 | 1084 |
| % App. Total | 52.9 | 2.9 | 44.1 | | 2.9 | 95.9 | 1.3 | | 66.7 | 0 | 33.3 | | 0.4 | 98.6 | 1 | | |
| PHF | .563 | .250 | .625 | .607 | .800 | .859 | .438 | .884 | .500 | .000 | .250 | .375 | .500 | .939 | .313 | .924 | .906 |

# Traffic Data Service

San Jose, CA
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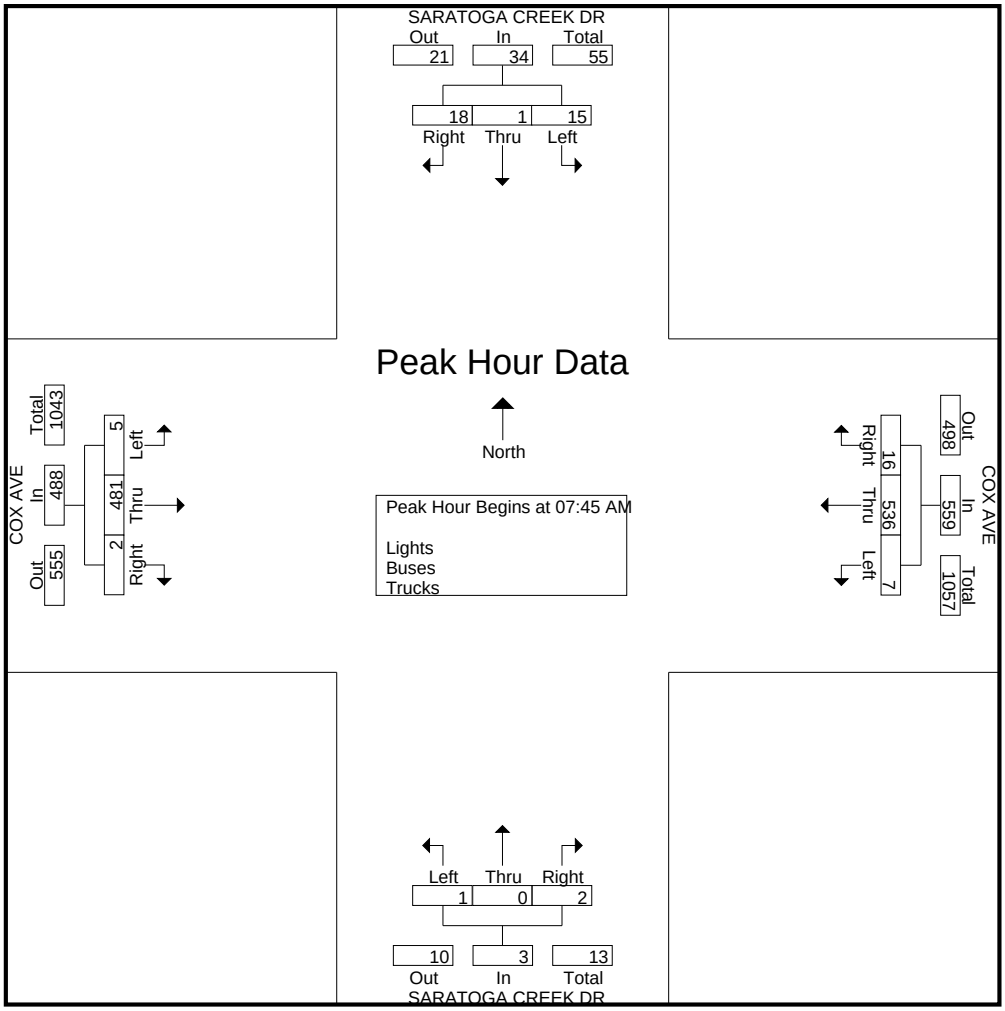
File Name : 1AM FINAL
Site Code : 00000001
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

San Jose, CA
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***tdsbay@cs.com***

File Name : 1AM FINAL
Site Code : 00000001
Start Date : 3/29/2018
Page No : 1

Groups Printed- Bikes

| | SARATOGA CREEK DR Southbound | | | | | COX AVE Westbound | | | | | SARATOGA CREEK DR Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| Total | 2 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 10 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:30 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 3 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 9 |
| Grand Total | 2 | 0 | 1 | 0 | 3 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 19 |
| Apprch % | 66.7 | 0 | 33.3 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| Total % | 10.5 | 0 | 5.3 | 0 | 15.8 | 0 | 57.9 | 0 | 0 | 57.9 | 0 | 0 | 0 | 0 | 0 | 0 | 26.3 | 0 | 0 | 26.3 | |

| | SARATOGA CREEK DR Southbound | | | | COX AVE Westbound | | | | SARATOGA CREEK DR Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:30 AM | 0 | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 3 |
| Total Volume | 0 | 0 | 1 | 1 | 0 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 11 |
| % App. Total | 0 | 0 | 100 | | 0 | 100 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .250 | .250 | .000 | .438 | .000 | .438 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .375 | .688 |

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File Name : 1AM FINAL
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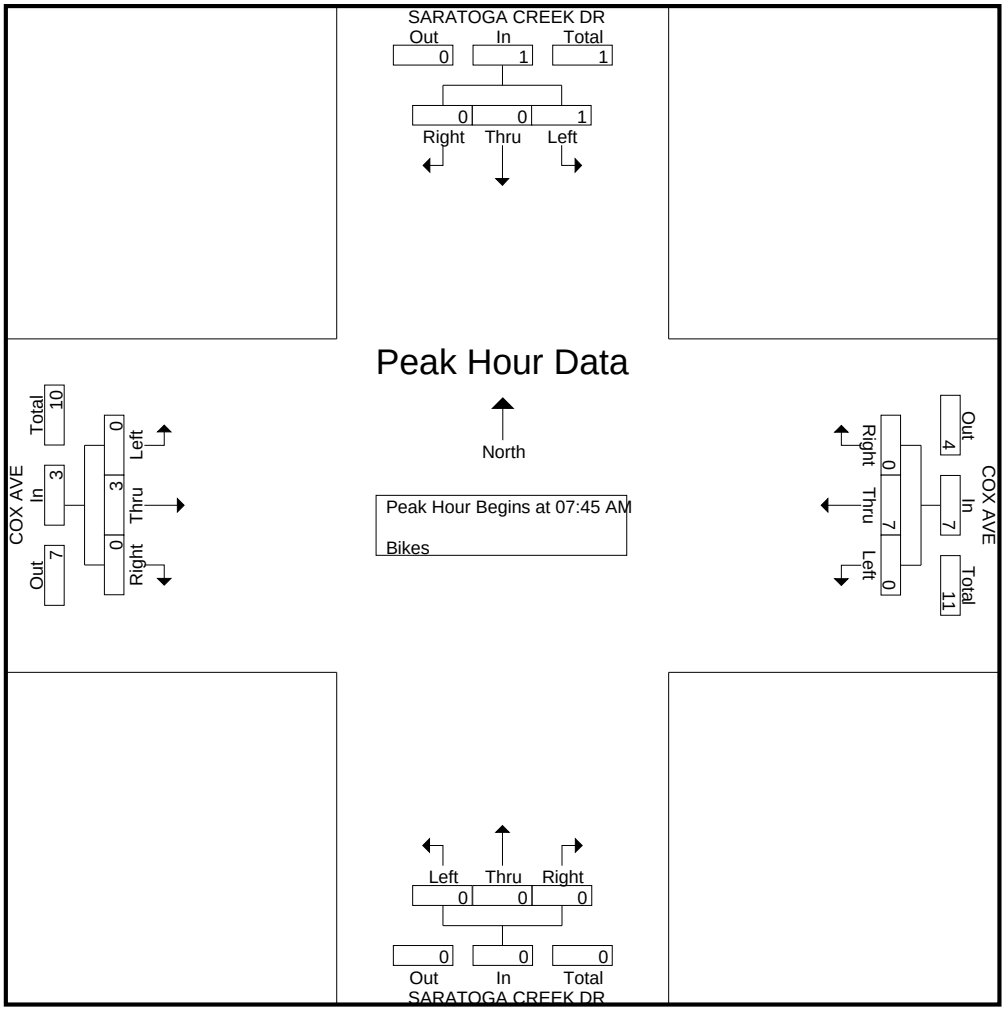
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 1PM FINAL
Site Code : 00000001
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SARATOGA CREEK DR Southbound | | | | | COX AVE Westbound | | | | | SARATOGA CREEK DR Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 4 | 0 | 1 | 0 | 5 | 1 | 106 | 2 | 0 | 109 | 2 | 1 | 0 | 0 | 3 | 0 | 133 | 3 | 0 | 136 | 253 |
| 04:15 PM | 1 | 0 | 0 | 0 | 1 | 2 | 97 | 0 | 0 | 99 | 0 | 0 | 2 | 0 | 2 | 0 | 108 | 5 | 0 | 113 | 215 |
| 04:30 PM | 3 | 0 | 1 | 0 | 4 | 0 | 118 | 1 | 0 | 119 | 1 | 0 | 0 | 0 | 1 | 1 | 123 | 4 | 0 | 128 | 252 |
| 04:45 PM | 4 | 0 | 4 | 0 | 8 | 0 | 98 | 0 | 0 | 98 | 0 | 0 | 0 | 2 | 2 | 0 | 106 | 7 | 0 | 113 | 221 |
| Total | 12 | 0 | 6 | 0 | 18 | 3 | 419 | 3 | 0 | 425 | 3 | 1 | 2 | 2 | 8 | 1 | 470 | 19 | 0 | 490 | 941 |
| 05:00 PM | 4 | 0 | 0 | 1 | 5 | 8 | 109 | 0 | 0 | 117 | 1 | 0 | 2 | 0 | 3 | 0 | 106 | 5 | 0 | 111 | 236 |
| 05:15 PM | 3 | 0 | 1 | 0 | 4 | 7 | 102 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 108 | 1 | 0 | 109 | 222 |
| 05:30 PM | 5 | 0 | 2 | 0 | 7 | 3 | 115 | 0 | 0 | 118 | 2 | 0 | 0 | 0 | 2 | 1 | 140 | 11 | 0 | 152 | 279 |
| 05:45 PM | 1 | 0 | 1 | 0 | 2 | 0 | 145 | 0 | 0 | 145 | 2 | 0 | 1 | 0 | 3 | 1 | 143 | 2 | 0 | 146 | 296 |
| Total | 13 | 0 | 4 | 1 | 18 | 18 | 471 | 0 | 0 | 489 | 5 | 0 | 3 | 0 | 8 | 2 | 497 | 19 | 0 | 518 | 1033 |
| Grand Total | 25 | 0 | 10 | 1 | 36 | 21 | 890 | 3 | 0 | 914 | 8 | 1 | 5 | 2 | 16 | 3 | 967 | 38 | 0 | 1008 | 1974 |
| Apprch % | 69.4 | 0 | 27.8 | 2.8 | | 2.3 | 97.4 | 0.3 | 0 | | 50 | 6.2 | 31.2 | 12.5 | | 0.3 | 95.9 | 3.8 | 0 | | |
| Total % | 1.3 | 0 | 0.5 | 0.1 | 1.8 | 1.1 | 45.1 | 0.2 | 0 | 46.3 | 0.4 | 0.1 | 0.3 | 0.1 | 0.8 | 0.2 | 49 | 1.9 | 0 | 51.1 | |
| Lights | 25 | 0 | 10 | 1 | 36 | 21 | 886 | 3 | 0 | 910 | 8 | 1 | 5 | 2 | 16 | 3 | 958 | 38 | 0 | 999 | 1961 |
| % Lights | 100 | 0 | 100 | 100 | 100 | 100 | 99.6 | 100 | 0 | 99.6 | 100 | 100 | 100 | 100 | 100 | 100 | 99.1 | 100 | 0 | 99.1 | 99.3 |
| Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 3 |
| % Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 | 0 | 0.3 | 0.2 |
| Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 10 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 0.6 | 0.5 |

| | SARATOGA CREEK DR Southbound | | | | COX AVE Westbound | | | | SARATOGA CREEK DR Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | |
| 05:00 PM | 4 | 0 | 0 | 4 | **8** | 109 | 0 | 117 | 1 | 0 | **2** | **3** | 0 | 106 | 5 | 111 | 235 |
| 05:15 PM | 3 | 0 | 1 | 4 | 7 | 102 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 108 | 1 | 109 | 222 |
| 05:30 PM | **5** | 0 | **2** | **7** | 3 | 115 | 0 | 118 | **2** | 0 | 0 | 2 | **1** | 140 | **11** | **152** | 279 |
| 05:45 PM | 1 | 0 | 1 | 2 | 0 | **145** | 0 | **145** | 2 | 0 | 1 | 3 | 1 | **143** | 2 | 146 | **296** |
| Total Volume | 13 | 0 | 4 | 17 | 18 | 471 | 0 | 489 | 5 | 0 | 3 | 8 | 2 | 497 | 19 | 518 | 1032 |
| % App. Total | 76.5 | 0 | 23.5 | | 3.7 | 96.3 | 0 | | 62.5 | 0 | 37.5 | | 0.4 | 95.9 | 3.7 | | |
| PHF | .650 | .000 | .500 | .607 | .563 | .812 | .000 | .843 | .625 | .000 | .375 | .667 | .500 | .869 | .432 | .852 | .872 |

# Traffic Data Service

San Jose, CA
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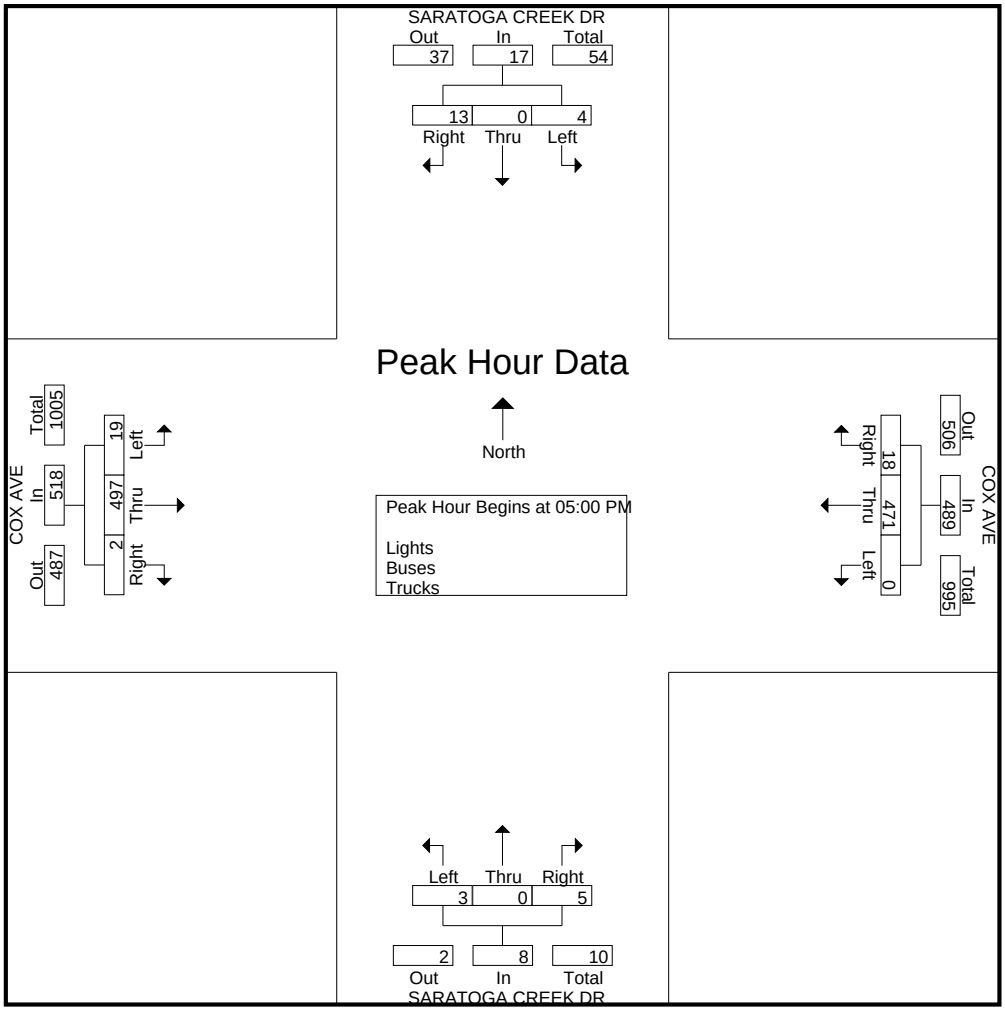
***tdsbay@cs.com***

File Name : 1PM FINAL
Site Code : 00000001
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

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***tdsbay@cs.com***

File Name : 1PM FINAL
Site Code : 00000001
Start Date : 3/29/2018
Page No : 1

Groups Printed- Bikes

| | SARATOGA CREEK DR Southbound | | | | | COX AVE Westbound | | | | | SARATOGA CREEK DR Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 5 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 4 |
| Total | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 6 | 10 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 0 | 12 | 13 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 13 | 18 |
| Grand Total | 1 | 0 | 0 | 0 | 1 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 2 | 0 | 19 | 28 |
| Apprch % | 100 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 89.5 | 10.5 | 0 | | |
| Total % | 3.6 | 0 | 0 | 0 | 3.6 | 0 | 28.6 | 0 | 0 | 28.6 | 0 | 0 | 0 | 0 | 0 | 0 | 60.7 | 7.1 | 0 | 67.9 | |

| | SARATOGA CREEK DR Southbound | | | | COX AVE Westbound | | | | SARATOGA CREEK DR Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 5 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | **1** | 3 | 4 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **11** | 1 | **12** | **13** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 16 | 2 | 18 | 23 |
| % App. Total | 0 | 0 | 0 | | 0 | 100 | 0 | | 0 | 0 | 0 | | 0 | 88.9 | 11.1 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .625 | .000 | .625 | .000 | .000 | .000 | .000 | .000 | .364 | .500 | .375 | .442 |

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File Name : 1PM FINAL
Site Code : 00000001
Start Date : 3/29/2018
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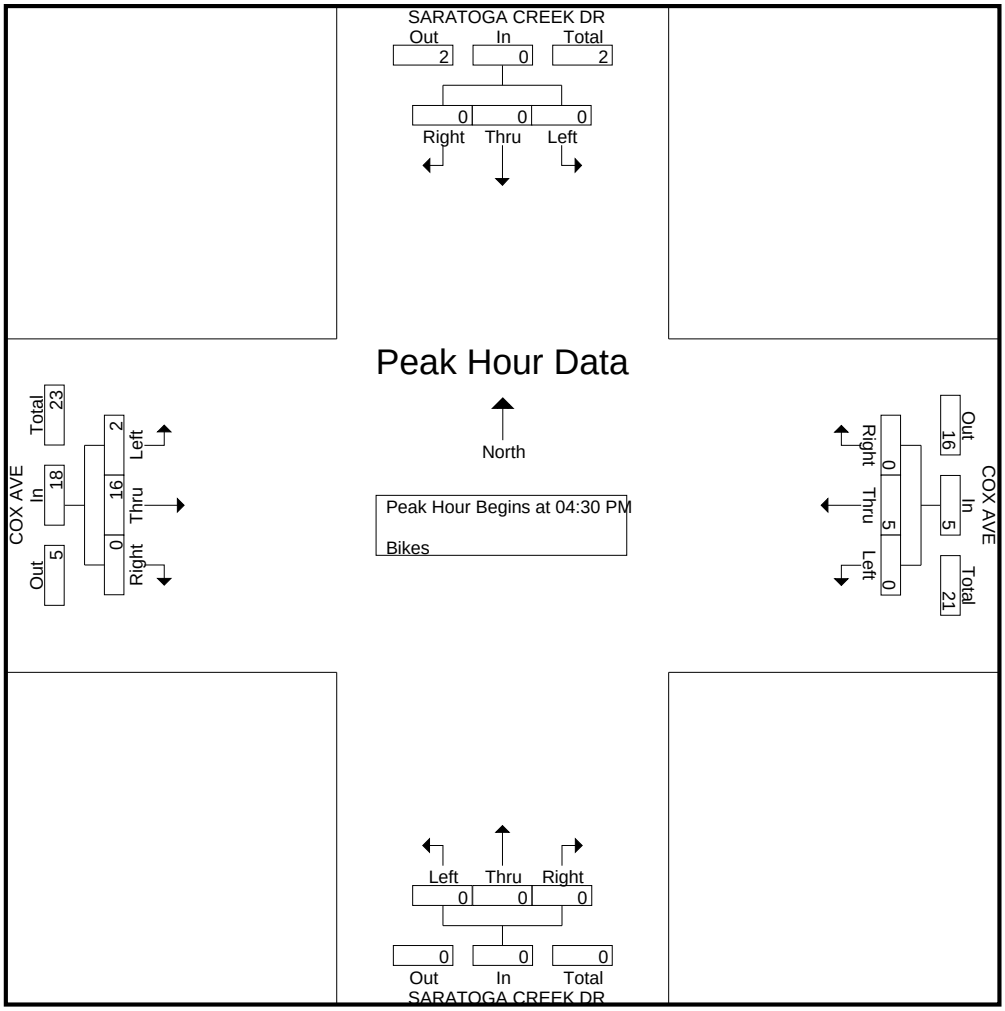

# Traffic Data Service

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***tdsbay@cs.com***

File Name : 2AM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SARATOGA AVE Southbound | | | | | COX AVE Westbound | | | | | SARATOGA AVE Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 19 | 82 | 7 | 0 | 108 | 4 | 16 | 86 | 0 | 106 | 28 | 99 | 24 | 0 | 151 | 23 | 2 | 21 | 0 | 46 | 411 |
| 07:15 AM | 21 | 104 | 2 | 0 | 127 | 6 | 26 | 84 | 0 | 116 | 15 | 127 | 33 | 0 | 175 | 21 | 19 | 26 | 0 | 66 | 484 |
| 07:30 AM | 30 | 135 | 6 | 0 | 171 | 8 | 34 | 90 | 0 | 132 | 37 | 122 | 24 | 0 | 183 | 24 | 22 | 45 | 0 | 91 | 577 |
| 07:45 AM | 63 | 185 | 5 | 0 | 253 | 13 | 46 | 84 | 0 | 143 | 59 | 186 | 45 | 0 | 290 | 53 | 18 | 48 | 0 | 119 | 805 |
| Total | 133 | 506 | 20 | 0 | 659 | 31 | 122 | 344 | 0 | 497 | 139 | 534 | 126 | 0 | 799 | 121 | 61 | 140 | 0 | 322 | 2277 |
| 08:00 AM | 63 | 183 | 7 | 0 | 253 | 7 | 50 | 88 | 1 | 146 | 60 | 183 | 44 | 2 | 289 | 50 | 23 | 62 | 1 | 136 | 824 |
| 08:15 AM | 49 | 160 | 19 | 0 | 228 | 12 | 71 | 103 | 0 | 186 | 31 | 214 | 48 | 1 | 294 | 55 | 17 | 51 | 0 | 123 | 831 |
| 08:30 AM | 38 | 170 | 13 | 0 | 221 | 14 | 35 | 59 | 0 | 108 | 35 | 210 | 50 | 2 | 297 | 44 | 16 | 63 | 0 | 123 | 749 |
| 08:45 AM | 44 | 195 | 17 | 0 | 256 | 20 | 48 | 71 | 0 | 139 | 35 | 211 | 53 | 2 | 301 | 38 | 27 | 51 | 0 | 116 | 812 |
| Total | 194 | 708 | 56 | 0 | 958 | 53 | 204 | 321 | 1 | 579 | 161 | 818 | 195 | 7 | 1181 | 187 | 83 | 227 | 1 | 498 | 3216 |
| Grand Total | 327 | 1214 | 76 | 0 | 1617 | 84 | 326 | 665 | 1 | 1076 | 300 | 1352 | 321 | 7 | 1980 | 308 | 144 | 367 | 1 | 820 | 5493 |
| Apprch % | 20.2 | 75.1 | 4.7 | 0 | | 7.8 | 30.3 | 61.8 | 0.1 | | 15.2 | 68.3 | 16.2 | 0.4 | | 37.6 | 17.6 | 44.8 | 0.1 | | |
| Total % | 6 | 22.1 | 1.4 | 0 | 29.4 | 1.5 | 5.9 | 12.1 | 0 | 19.6 | 5.5 | 24.6 | 5.8 | 0.1 | 36 | 5.6 | 2.6 | 6.7 | 0 | 14.9 | |
| Lights | 320 | 1191 | 76 | 0 | 1587 | 84 | 325 | 659 | 1 | 1069 | 298 | 1332 | 317 | 7 | 1954 | 305 | 138 | 366 | 1 | 810 | 5420 |
| % Lights | 97.9 | 98.1 | 100 | 0 | 98.1 | 100 | 99.7 | 99.1 | 100 | 99.3 | 99.3 | 98.5 | 98.8 | 100 | 98.7 | 99 | 95.8 | 99.7 | 100 | 98.8 | 98.7 |
| Buses | 2 | 7 | 0 | 0 | 9 | 0 | 1 | 4 | 0 | 5 | 2 | 11 | 0 | 0 | 13 | 3 | 0 | 0 | 0 | 3 | 30 |
| % Buses | 0.6 | 0.6 | 0 | 0 | 0.6 | 0 | 0.3 | 0.6 | 0 | 0.5 | 0.7 | 0.8 | 0 | 0 | 0.7 | 1 | 0 | 0 | 0 | 0.4 | 0.5 |
| Trucks | 5 | 16 | 0 | 0 | 21 | 0 | 0 | 2 | 0 | 2 | 0 | 9 | 4 | 0 | 13 | 0 | 6 | 1 | 0 | 7 | 43 |
| % Trucks | 1.5 | 1.3 | 0 | 0 | 1.3 | 0 | 0 | 0.3 | 0 | 0.2 | 0 | 0.7 | 1.2 | 0 | 0.7 | 0 | 4.2 | 0.3 | 0 | 0.9 | 0.8 |

| | SARATOGA AVE Southbound | | | | COX AVE Westbound | | | | SARATOGA AVE Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | |
| 08:00 AM | **63** | 183 | 7 | 253 | 7 | 50 | 88 | 145 | **60** | 183 | 44 | 287 | 50 | 23 | 62 | **135** | 820 |
| 08:15 AM | 49 | 160 | **19** | 228 | 12 | **71** | **103** | **186** | 31 | **214** | 48 | 293 | **55** | 17 | 51 | 123 | **830** |
| 08:30 AM | 38 | 170 | 13 | 221 | 14 | 35 | 59 | 108 | 35 | 210 | 50 | 295 | 44 | 16 | **63** | 123 | 747 |
| 08:45 AM | 44 | **195** | 17 | **256** | **20** | 48 | 71 | 139 | 35 | 211 | **53** | **299** | 38 | **27** | 51 | 116 | 810 |
| Total Volume | 194 | 708 | 56 | 958 | 53 | 204 | 321 | 578 | 161 | 818 | 195 | 1174 | 187 | 83 | 227 | 497 | 3207 |
| % App. Total | 20.3 | 73.9 | 5.8 | | 9.2 | 35.3 | 55.5 | | 13.7 | 69.7 | 16.6 | | 37.6 | 16.7 | 45.7 | | |
| PHF | .770 | .908 | .737 | .936 | .663 | .718 | .779 | .777 | .671 | .956 | .920 | .982 | .850 | .769 | .901 | .920 | .966 |

# Traffic Data Service

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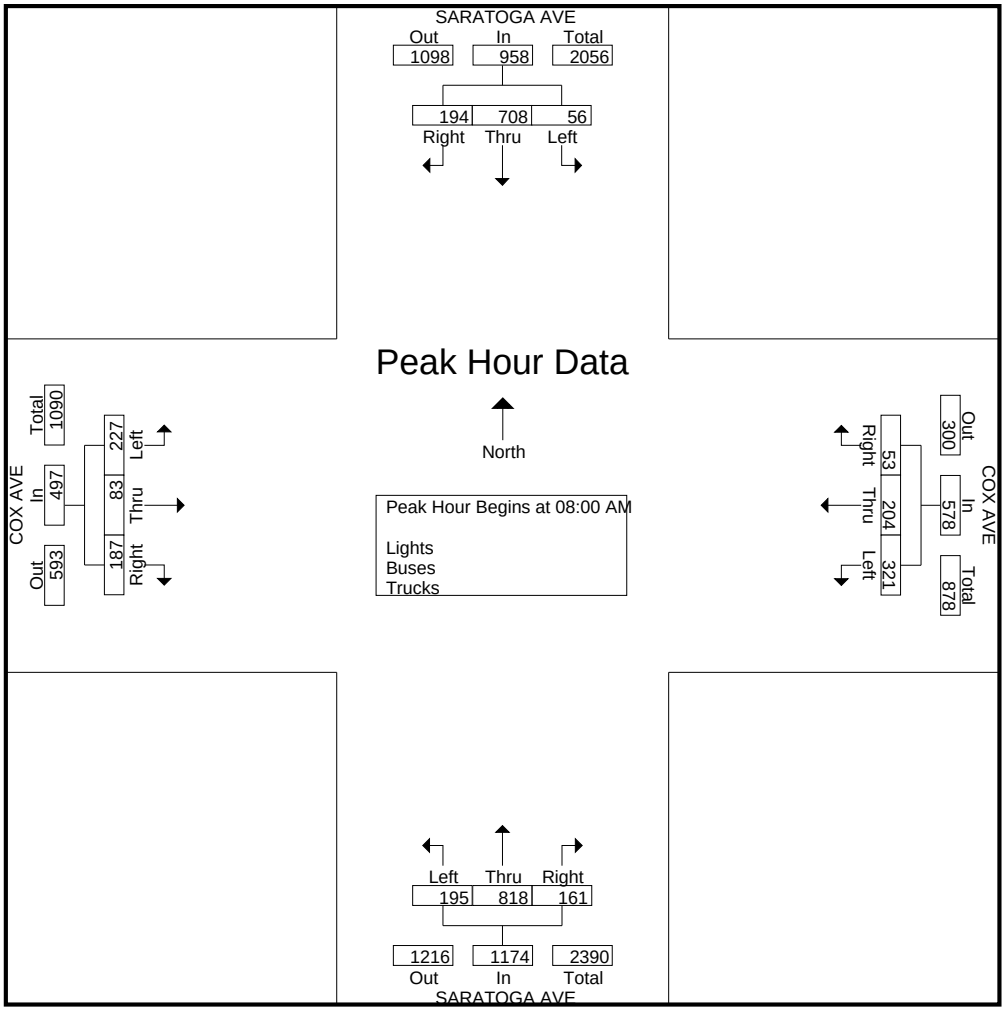
File Name : 2AM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

San Jose, CA
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***tdsbay@cs.com***

File Name : 2AM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 1

Groups Printed- Bikes

| | SARATOGA AVE Southbound | | | | | COX AVE Westbound | | | | | SARATOGA AVE Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 6 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 3 | 1 | 0 | 4 | 0 | 1 | 1 | 0 | 2 | 13 |
| 08:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 3 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| Total | 1 | 0 | 0 | 0 | 1 | 0 | 8 | 0 | 0 | 8 | 1 | 2 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 15 |
| Grand Total | 1 | 0 | 0 | 0 | 1 | 0 | 15 | 0 | 0 | 15 | 1 | 5 | 1 | 0 | 7 | 0 | 4 | 1 | 0 | 5 | 28 |
| Apprch % | 100 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 14.3 | 71.4 | 14.3 | 0 | | 0 | 80 | 20 | 0 | | |
| Total % | 3.6 | 0 | 0 | 0 | 3.6 | 0 | 53.6 | 0 | 0 | 53.6 | 3.6 | 17.9 | 3.6 | 0 | 25 | 0 | 14.3 | 3.6 | 0 | 17.9 | |

| | SARATOGA AVE Southbound | | | | COX AVE Westbound | | | | SARATOGA AVE Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | **2** | **1** | **3** | 0 | 1 | 0 | 1 | **6** |
| 08:00 AM | **1** | 0 | 0 | **1** | 0 | **3** | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | **1** | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | **2** | 0 | **2** | 3 |
| Total Volume | 1 | 0 | 0 | 1 | 0 | 6 | 0 | 6 | 1 | 4 | 1 | 6 | 0 | 3 | 0 | 3 | 16 |
| % App. Total | 100 | 0 | 0 | | 0 | 100 | 0 | | 16.7 | 66.7 | 16.7 | | 0 | 100 | 0 | | |
| PHF | .250 | .000 | .000 | .250 | .000 | .500 | .000 | .500 | .250 | .500 | .250 | .500 | .000 | .375 | .000 | .375 | .667 |

# Traffic Data Service

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File Name : 2AM FINAL
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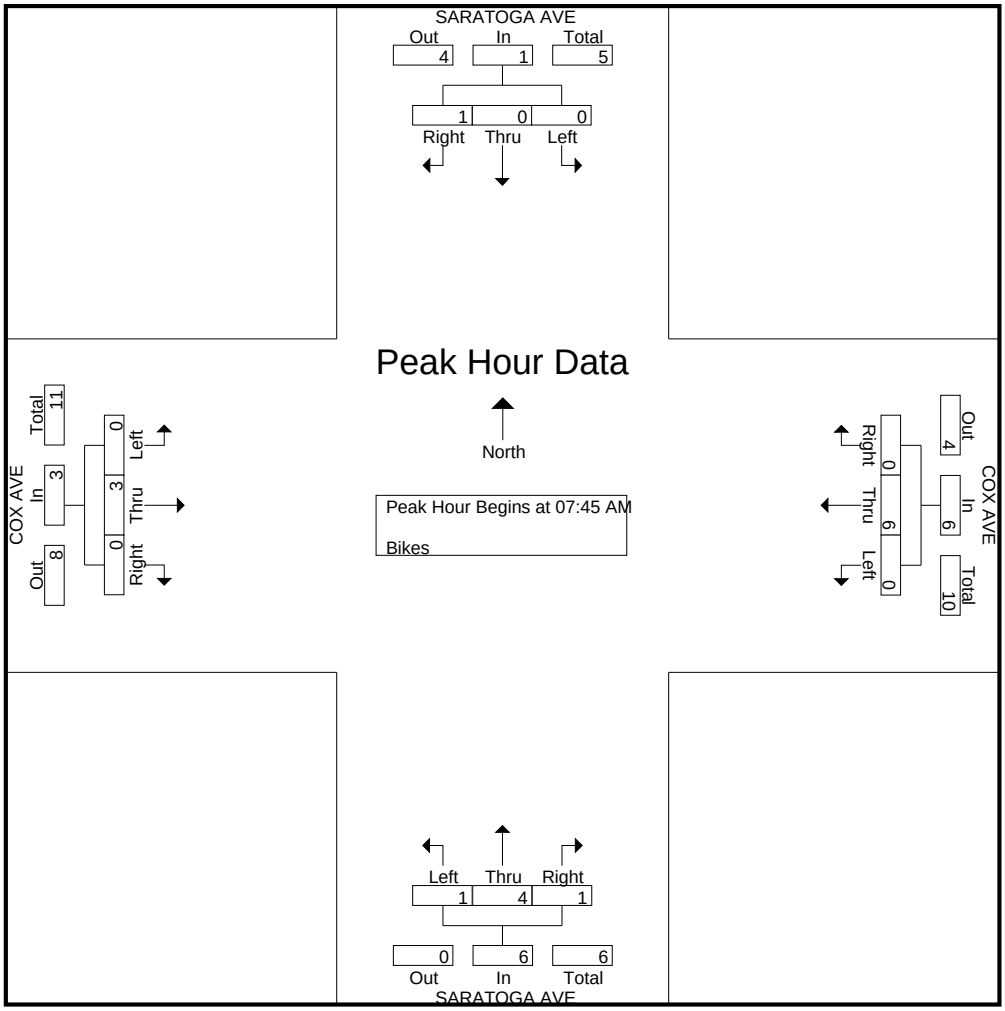
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

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File Name : 2PM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

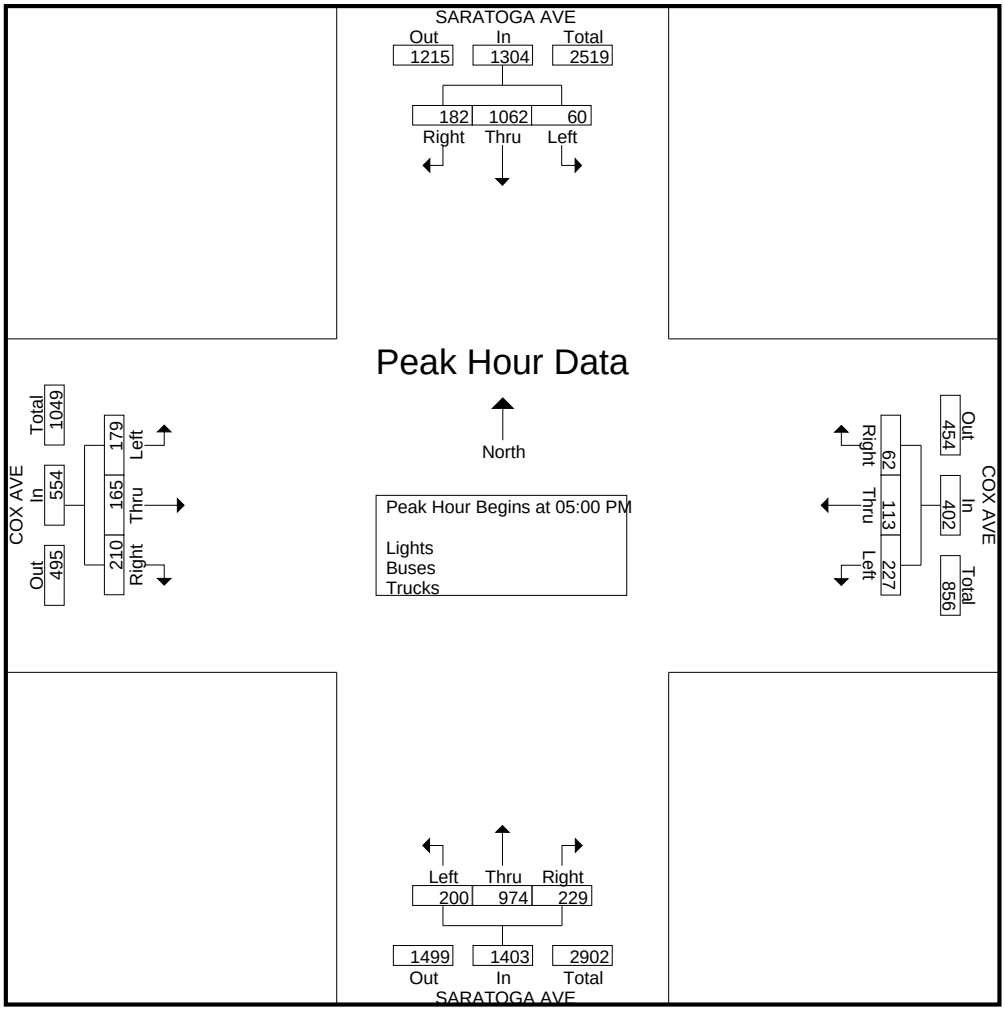
| | SARATOGA AVE Southbound | | | | | COX AVE Westbound | | | | | SARATOGA AVE Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 43 | 235 | 12 | 0 | 290 | 23 | 35 | 52 | 1 | 111 | 60 | 202 | 36 | 0 | 298 | 65 | 43 | 43 | 0 | 151 | 850 |
| 04:15 PM | 33 | 240 | 14 | 0 | 287 | 16 | 25 | 42 | 0 | 83 | 52 | 194 | 41 | 0 | 287 | 39 | 43 | 37 | 0 | 119 | 776 |
| 04:30 PM | 52 | 264 | 11 | 0 | 327 | 8 | 22 | 50 | 1 | 81 | 52 | 197 | 53 | 0 | 302 | 54 | 38 | 46 | 0 | 138 | 848 |
| 04:45 PM | 40 | 286 | 17 | 2 | 345 | 21 | 27 | 54 | 2 | 104 | 54 | 242 | 31 | 3 | 330 | 49 | 34 | 38 | 0 | 121 | 900 |
| Total | 168 | 1025 | 54 | 2 | 1249 | 68 | 109 | 198 | 4 | 379 | 218 | 835 | 161 | 3 | 1217 | 207 | 158 | 164 | 0 | 529 | 3374 |
| 05:00 PM | 42 | 256 | 21 | 0 | 319 | 15 | 25 | 52 | 0 | 92 | 56 | 256 | 52 | 0 | 364 | 54 | 26 | 38 | 0 | 118 | 893 |
| 05:15 PM | 31 | 232 | 15 | 0 | 278 | 21 | 30 | 64 | 0 | 115 | 48 | 242 | 51 | 1 | 342 | 51 | 37 | 45 | 0 | 133 | 868 |
| 05:30 PM | 47 | 290 | 11 | 0 | 348 | 15 | 28 | 54 | 0 | 97 | 60 | 217 | 45 | 2 | 324 | 54 | 51 | 46 | 2 | 153 | 922 |
| 05:45 PM | 62 | 284 | 13 | 0 | 359 | 11 | 30 | 57 | 0 | 98 | 65 | 259 | 52 | 0 | 376 | 51 | 51 | 50 | 0 | 152 | 985 |
| Total | 182 | 1062 | 60 | 0 | 1304 | 62 | 113 | 227 | 0 | 402 | 229 | 974 | 200 | 3 | 1406 | 210 | 165 | 179 | 2 | 556 | 3668 |
| Grand Total | 350 | 2087 | 114 | 2 | 2553 | 130 | 222 | 425 | 4 | 781 | 447 | 1809 | 361 | 6 | 2623 | 417 | 323 | 343 | 2 | 1085 | 7042 |
| Apprch % | 13.7 | 81.7 | 4.5 | 0.1 | | 16.6 | 28.4 | 54.4 | 0.5 | | 17 | 69 | 13.8 | 0.2 | | 38.4 | 29.8 | 31.6 | 0.2 | | |
| Total % | 5 | 29.6 | 1.6 | 0 | 36.3 | 1.8 | 3.2 | 6 | 0.1 | 11.1 | 6.3 | 25.7 | 5.1 | 0.1 | 37.2 | 5.9 | 4.6 | 4.9 | 0 | 15.4 | |
| Lights | 348 | 2079 | 114 | 2 | 2543 | 127 | 222 | 424 | 4 | 777 | 444 | 1795 | 359 | 6 | 2604 | 412 | 319 | 341 | 2 | 1074 | 6998 |
| % Lights | 99.4 | 99.6 | 100 | 100 | 99.6 | 97.7 | 100 | 99.8 | 100 | 99.5 | 99.3 | 99.2 | 99.4 | 100 | 99.3 | 98.8 | 98.8 | 99.4 | 100 | 99 | 99.4 |
| Buses | 0 | 3 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 2 | 1 | 5 | 0 | 0 | 6 | 2 | 0 | 1 | 0 | 3 | 14 |
| % Buses | 0 | 0.1 | 0 | 0 | 0.1 | 0.8 | 0 | 0.2 | 0 | 0.3 | 0.2 | 0.3 | 0 | 0 | 0.2 | 0.5 | 0 | 0.3 | 0 | 0.3 | 0.2 |
| Trucks | 2 | 5 | 0 | 0 | 7 | 2 | 0 | 0 | 0 | 2 | 2 | 9 | 2 | 0 | 13 | 3 | 4 | 1 | 0 | 8 | 30 |
| % Trucks | 0.6 | 0.2 | 0 | 0 | 0.3 | 1.5 | 0 | 0 | 0 | 0.3 | 0.4 | 0.5 | 0.6 | 0 | 0.5 | 0.7 | 1.2 | 0.3 | 0 | 0.7 | 0.4 |

| | SARATOGA AVE Southbound | | | | COX AVE Westbound | | | | SARATOGA AVE Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | |
| 05:00 PM | 42 | 256 | **21** | 319 | 15 | 25 | 52 | 92 | 56 | 256 | **52** | 364 | **54** | 26 | 38 | 118 | 893 |
| 05:15 PM | 31 | 232 | 15 | 278 | **21** | **30** | **64** | **115** | 48 | 242 | 51 | 341 | 51 | 37 | 45 | 133 | 867 |
| 05:30 PM | 47 | **290** | 11 | 348 | 15 | 28 | 54 | 97 | 60 | 217 | 45 | 322 | 54 | **51** | 46 | 151 | 918 |
| 05:45 PM | **62** | 284 | 13 | **359** | 11 | 30 | 57 | 98 | **65** | **259** | 52 | **376** | 51 | 51 | **50** | **152** | **985** |
| Total Volume | 182 | 1062 | 60 | 1304 | 62 | 113 | 227 | 402 | 229 | 974 | 200 | 1403 | 210 | 165 | 179 | 554 | 3663 |
| % App. Total | 14 | 81.4 | 4.6 | | 15.4 | 28.1 | 56.5 | | 16.3 | 69.4 | 14.3 | | 37.9 | 29.8 | 32.3 | | |
| PHF | .734 | .916 | .714 | .908 | .738 | .942 | .887 | .874 | .881 | .940 | .962 | .933 | .972 | .809 | .895 | .911 | .930 |

# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 2PM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 2PM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 1

Groups Printed- Bikes

| | SARATOGA AVE Southbound | | | | | COX AVE Westbound | | | | | SARATOGA AVE Northbound | | | | | COX AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 3 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| Total | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 5 | 8 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 9 | 0 | 0 | 11 | 14 |
| 05:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 05:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Total | 0 | 3 | 0 | 0 | 3 | 0 | 5 | 0 | 0 | 5 | 1 | 1 | 0 | 0 | 2 | 2 | 10 | 0 | 0 | 12 | 22 |
| Grand Total | 0 | 4 | 0 | 0 | 4 | 0 | 5 | 0 | 0 | 5 | 2 | 2 | 0 | 0 | 4 | 2 | 15 | 0 | 0 | 17 | 30 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 50 | 50 | 0 | 0 | | 11.8 | 88.2 | 0 | 0 | | |
| Total % | 0 | 13.3 | 0 | 0 | 13.3 | 0 | 16.7 | 0 | 0 | 16.7 | 6.7 | 6.7 | 0 | 0 | 13.3 | 6.7 | 50 | 0 | 0 | 56.7 | |

| | SARATOGA AVE Southbound | | | | COX AVE Westbound | | | | SARATOGA AVE Northbound | | | | COX AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | **1** | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 2 |
| 05:15 PM | 0 | **1** | 0 | **1** | 0 | 1 | 0 | 1 | 0 | **1** | 0 | 1 | **2** | **9** | 0 | **11** | **14** |
| 05:30 PM | 0 | 1 | 0 | 1 | 0 | **3** | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total Volume | 0 | 2 | 0 | 2 | 0 | 5 | 0 | 5 | 1 | 1 | 0 | 2 | 2 | 11 | 0 | 13 | 22 |
| % App. Total | 0 | 100 | 0 | | 0 | 100 | 0 | | 50 | 50 | 0 | | 15.4 | 84.6 | 0 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .417 | .000 | .417 | .250 | .250 | .000 | .500 | .250 | .306 | .000 | .295 | .393 |

# Traffic Data Service

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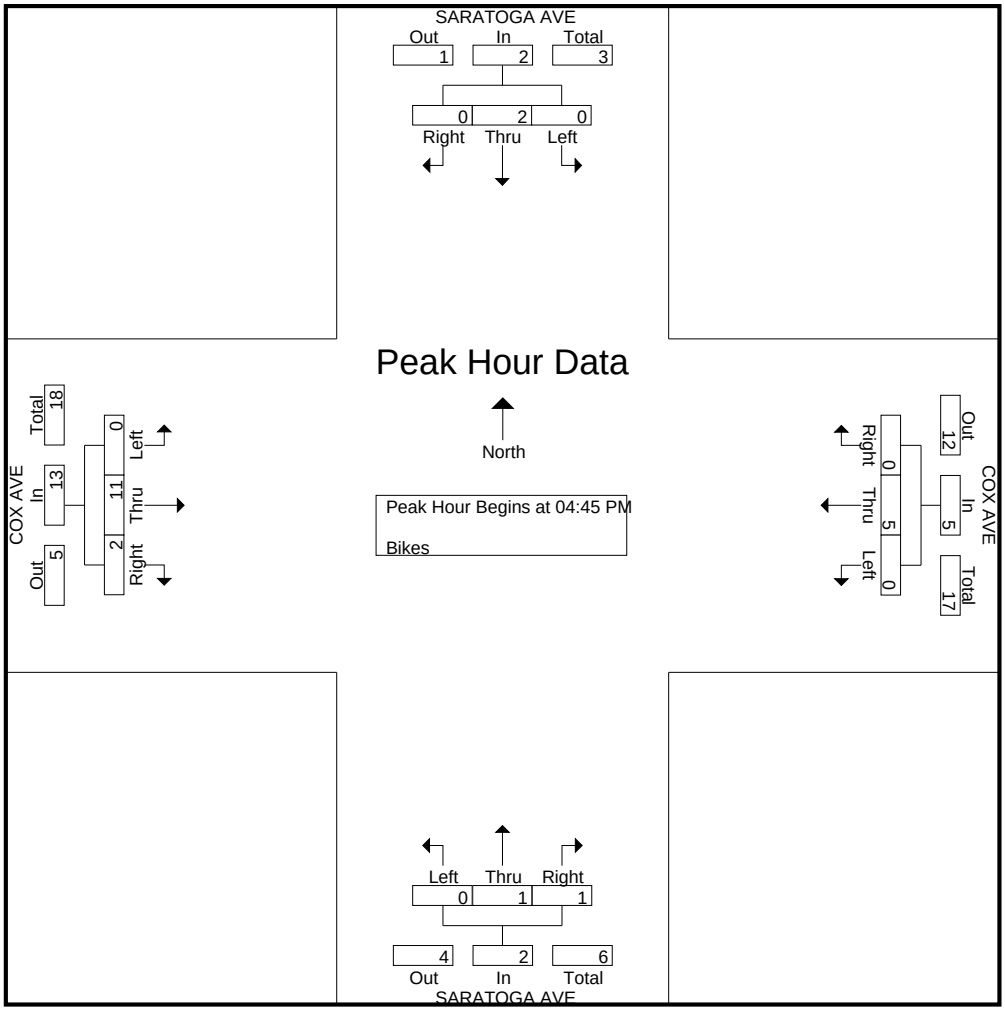
File Name : 2PM FINAL
Site Code : 00000002
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

San Jose, CA
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***tdsbay@cs.com***

File Name : 3AM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SR-85 NB ON-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 NB OFF-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 1 | 1 | 108 | 99 | 0 | 0 | 207 | 59 | 0 | 24 | 2 | 85 | 0 | 80 | 66 | 0 | 146 | 439 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 134 | 114 | 0 | 0 | 248 | 75 | 0 | 31 | 0 | 106 | 0 | 92 | 97 | 0 | 189 | 543 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 107 | 164 | 0 | 0 | 271 | 65 | 0 | 50 | 0 | 115 | 0 | 145 | 121 | 0 | 266 | 652 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 104 | 238 | 0 | 0 | 342 | 80 | 0 | 71 | 0 | 151 | 0 | 194 | 99 | 0 | 293 | 786 |
| Total | 0 | 0 | 0 | 1 | 1 | 453 | 615 | 0 | 0 | 1068 | 279 | 0 | 176 | 2 | 457 | 0 | 511 | 383 | 0 | 894 | 2420 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 123 | 240 | 0 | 0 | 363 | 83 | 0 | 54 | 2 | 139 | 0 | 243 | 130 | 0 | 373 | 875 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 103 | 199 | 0 | 0 | 302 | 96 | 0 | 48 | 0 | 144 | 0 | 201 | 115 | 0 | 316 | 762 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 82 | 189 | 0 | 0 | 271 | 110 | 0 | 48 | 0 | 158 | 0 | 164 | 108 | 0 | 272 | 701 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 84 | 221 | 0 | 0 | 305 | 126 | 0 | 62 | 0 | 188 | 0 | 186 | 61 | 0 | 247 | 740 |
| Total | 0 | 0 | 0 | 0 | 0 | 392 | 849 | 0 | 0 | 1241 | 415 | 0 | 212 | 2 | 629 | 0 | 794 | 414 | 0 | 1208 | 3078 |
| Grand Total | 0 | 0 | 0 | 1 | 1 | 845 | 1464 | 0 | 0 | 2309 | 694 | 0 | 388 | 4 | 1086 | 0 | 1305 | 797 | 0 | 2102 | 5498 |
| Apprch % | 0 | 0 | 0 | 100 | | 36.6 | 63.4 | 0 | 0 | | 63.9 | 0 | 35.7 | 0.4 | | 0 | 62.1 | 37.9 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 15.4 | 26.6 | 0 | 0 | 42 | 12.6 | 0 | 7.1 | 0.1 | 19.8 | 0 | 23.7 | 14.5 | 0 | 38.2 | |
| Lights | 0 | 0 | 0 | 1 | 1 | 840 | 1440 | 0 | 0 | 2280 | 685 | 0 | 382 | 4 | 1071 | 0 | 1287 | 790 | 0 | 2077 | 5429 |
| % Lights | 0 | 0 | 0 | 100 | 100 | 99.4 | 98.4 | 0 | 0 | 98.7 | 98.7 | 0 | 98.5 | 100 | 98.6 | 0 | 98.6 | 99.1 | 0 | 98.8 | 98.7 |
| Buses | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 0 | 0 | 13 | 4 | 0 | 5 | 0 | 9 | 0 | 10 | 4 | 0 | 14 | 36 |
| % Buses | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.7 | 0 | 0 | 0.6 | 0.6 | 0 | 1.3 | 0 | 0.8 | 0 | 0.8 | 0.5 | 0 | 0.7 | 0.7 |
| Trucks | 0 | 0 | 0 | 0 | 0 | 2 | 14 | 0 | 0 | 16 | 5 | 0 | 1 | 0 | 6 | 0 | 8 | 3 | 0 | 11 | 33 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0.2 | 1 | 0 | 0 | 0.7 | 0.7 | 0 | 0.3 | 0 | 0.6 | 0 | 0.6 | 0.4 | 0 | 0.5 | 0.6 |

| | SR-85 NB ON-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 NB OFF-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 0 | 0 | 104 | 238 | 0 | 342 | 80 | 0 | **71** | 151 | 0 | 194 | 99 | 293 | 786 |
| 08:00 AM | 0 | 0 | 0 | 0 | **123** | **240** | 0 | **363** | 83 | 0 | 54 | 137 | 0 | **243** | **130** | **373** | **873** |
| 08:15 AM | 0 | 0 | 0 | 0 | 103 | 199 | 0 | 302 | 96 | 0 | 48 | 144 | 0 | 201 | 115 | 316 | 762 |
| 08:30 AM | 0 | 0 | 0 | 0 | 82 | 189 | 0 | 271 | **110** | 0 | 48 | **158** | 0 | 164 | 108 | 272 | 701 |
| Total Volume | 0 | 0 | 0 | 0 | 412 | 866 | 0 | 1278 | 369 | 0 | 221 | 590 | 0 | 802 | 452 | 1254 | 3122 |
| % App. Total | 0 | 0 | 0 | | 32.2 | 67.8 | 0 | | 62.5 | 0 | 37.5 | | 0 | 64 | 36 | | |
| PHF | .000 | .000 | .000 | .000 | .837 | .902 | .000 | .880 | .839 | .000 | .778 | .934 | .000 | .825 | .869 | .840 | .894 |

# Traffic Data Service

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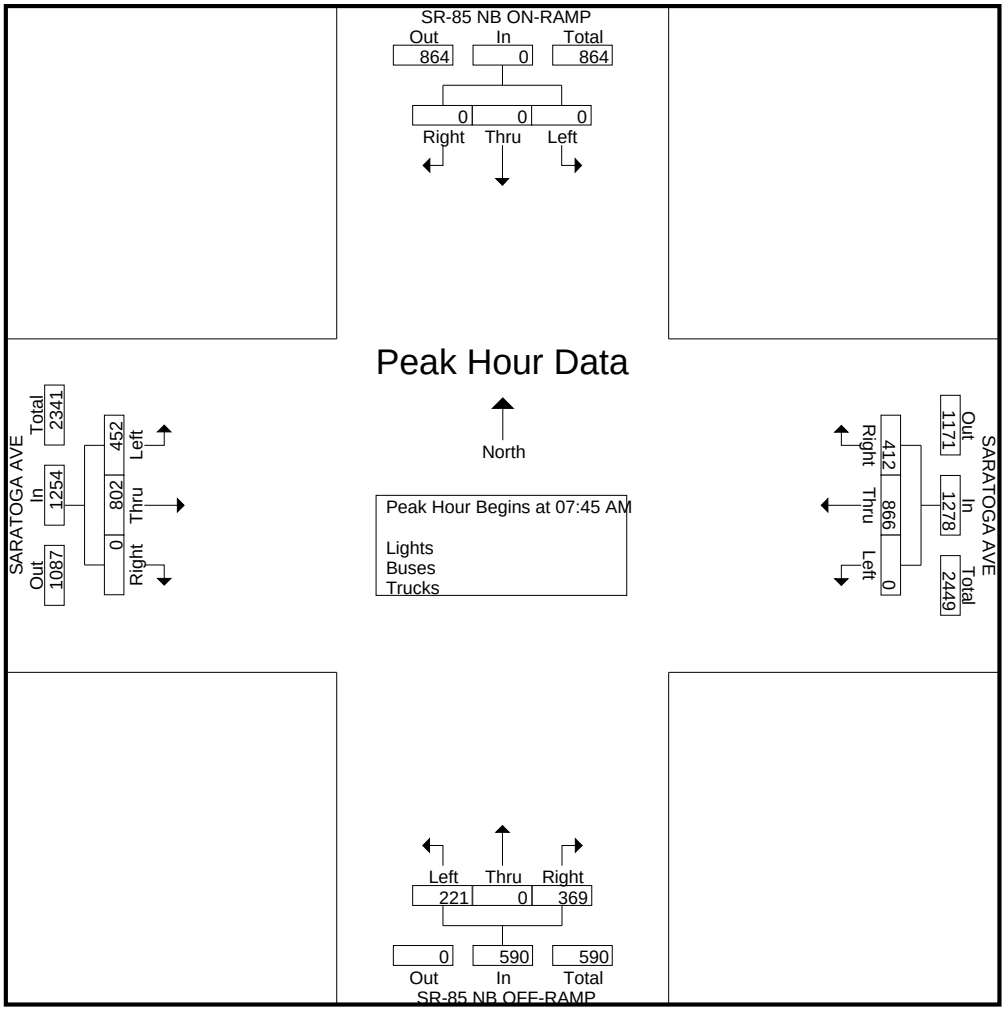
File Name : 3AM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

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***tdsbay@cs.com***

File Name : 3AM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 1

Groups Printed- Bikes

| | SR-85 NB ON-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 NB OFF-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | |

| | SR-85 NB ON-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 NB OFF-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **1** |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| % App. Total | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .500 | .500 |

# Traffic Data Service

San Jose, CA
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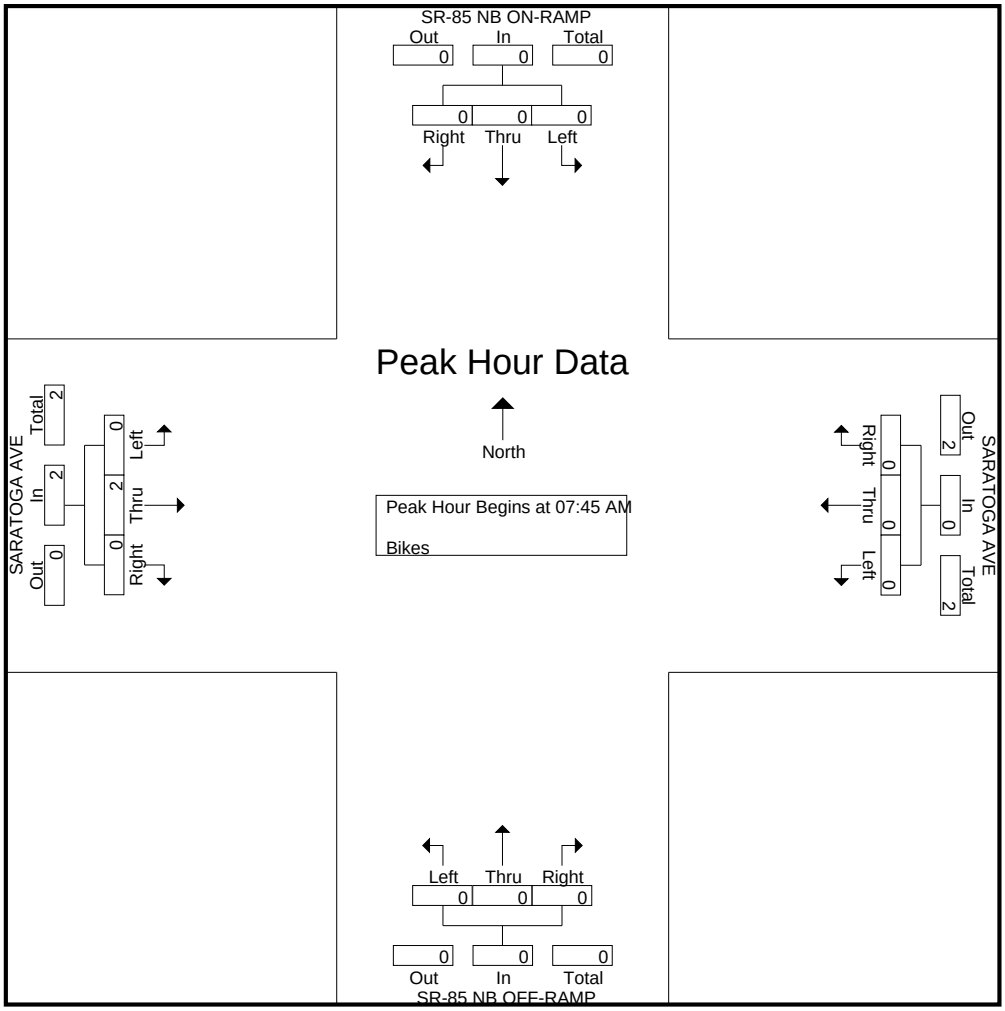
File Name : 3AM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 3PM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SR-85 NB ON-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 NB OFF-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 66 | 284 | 0 | 0 | 350 | 141 | 0 | 159 | 0 | 300 | 0 | 183 | 60 | 0 | 243 | 893 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 66 | 275 | 0 | 0 | 341 | 162 | 1 | 166 | 2 | 331 | 0 | 144 | 55 | 0 | 199 | 871 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 63 | 285 | 0 | 0 | 348 | 149 | 0 | 157 | 0 | 306 | 0 | 146 | 57 | 0 | 203 | 857 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 58 | 335 | 0 | 0 | 393 | 195 | 0 | 149 | 0 | 344 | 0 | 151 | 63 | 0 | 214 | 951 |
| Total | 0 | 0 | 0 | 0 | 0 | 253 | 1179 | 0 | 0 | 1432 | 647 | 1 | 631 | 2 | 1281 | 0 | 624 | 235 | 0 | 859 | 3572 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 57 | 284 | 0 | 0 | 341 | 191 | 0 | 131 | 0 | 322 | 0 | 132 | 50 | 0 | 182 | 845 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 75 | 263 | 0 | 0 | 338 | 198 | 1 | 155 | 0 | 354 | 0 | 143 | 47 | 0 | 190 | 882 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 66 | 298 | 0 | 0 | 364 | 213 | 0 | 138 | 0 | 351 | 0 | 142 | 49 | 0 | 191 | 906 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 56 | 306 | 0 | 0 | 362 | 201 | 0 | 164 | 0 | 365 | 0 | 169 | 41 | 0 | 210 | 937 |
| Total | 0 | 0 | 0 | 0 | 0 | 254 | 1151 | 0 | 0 | 1405 | 803 | 1 | 588 | 0 | 1392 | 0 | 586 | 187 | 0 | 773 | 3570 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 507 | 2330 | 0 | 0 | 2837 | 1450 | 2 | 1219 | 2 | 2673 | 0 | 1210 | 422 | 0 | 1632 | 7142 |
| Apprch % | 0 | 0 | 0 | 0 | | 17.9 | 82.1 | 0 | 0 | | 54.2 | 0.1 | 45.6 | 0.1 | | 0 | 74.1 | 25.9 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 7.1 | 32.6 | 0 | 0 | 39.7 | 20.3 | 0 | 17.1 | 0 | 37.4 | 0 | 16.9 | 5.9 | 0 | 22.9 | |
| Lights | 0 | 0 | 0 | 0 | 0 | 505 | 2325 | 0 | 0 | 2830 | 1441 | 2 | 1215 | 2 | 2660 | 0 | 1198 | 418 | 0 | 1616 | 7106 |
| % Lights | 0 | 0 | 0 | 0 | 0 | 99.6 | 99.8 | 0 | 0 | 99.8 | 99.4 | 100 | 99.7 | 100 | 99.5 | 0 | 99 | 99.1 | 0 | 99 | 99.5 |
| Buses | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | 1 | 0 | 1 | 0 | 2 | 0 | 5 | 3 | 0 | 8 | 15 |
| % Buses | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.1 | 0 | 0 | 0.2 | 0.1 | 0 | 0.1 | 0 | 0.1 | 0 | 0.4 | 0.7 | 0 | 0.5 | 0.2 |
| Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 8 | 0 | 3 | 0 | 11 | 0 | 7 | 1 | 0 | 8 | 21 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.1 | 0.6 | 0 | 0.2 | 0 | 0.4 | 0 | 0.6 | 0.2 | 0 | 0.5 | 0.3 |

| | SR-85 NB ON-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 NB OFF-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 0 | 58 | **335** | 0 | **393** | 195 | 0 | 149 | 344 | 0 | **151** | **63** | **214** | **951** |
| 05:00 PM | 0 | 0 | 0 | 0 | 57 | 284 | 0 | 341 | 191 | 0 | 131 | 322 | 0 | 132 | 50 | 182 | 845 |
| 05:15 PM | 0 | 0 | 0 | 0 | **75** | 263 | 0 | 338 | 198 | **1** | **155** | **354** | 0 | 143 | 47 | 190 | 882 |
| 05:30 PM | 0 | 0 | 0 | 0 | 66 | 298 | 0 | 364 | **213** | 0 | 138 | 351 | 0 | 142 | 49 | 191 | 906 |
| Total Volume | 0 | 0 | 0 | 0 | 256 | 1180 | 0 | 1436 | 797 | 1 | 573 | 1371 | 0 | 568 | 209 | 777 | 3584 |
| % App. Total | 0 | 0 | 0 | | 17.8 | 82.2 | 0 | | 58.1 | 0.1 | 41.8 | | 0 | 73.1 | 26.9 | | |
| PHF | .000 | .000 | .000 | .000 | .853 | .881 | .000 | .913 | .935 | .250 | .924 | .968 | .000 | .940 | .829 | .908 | .942 |

# Traffic Data Service

San Jose, CA
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File Name : 3PM FINAL
Site Code : 00000003
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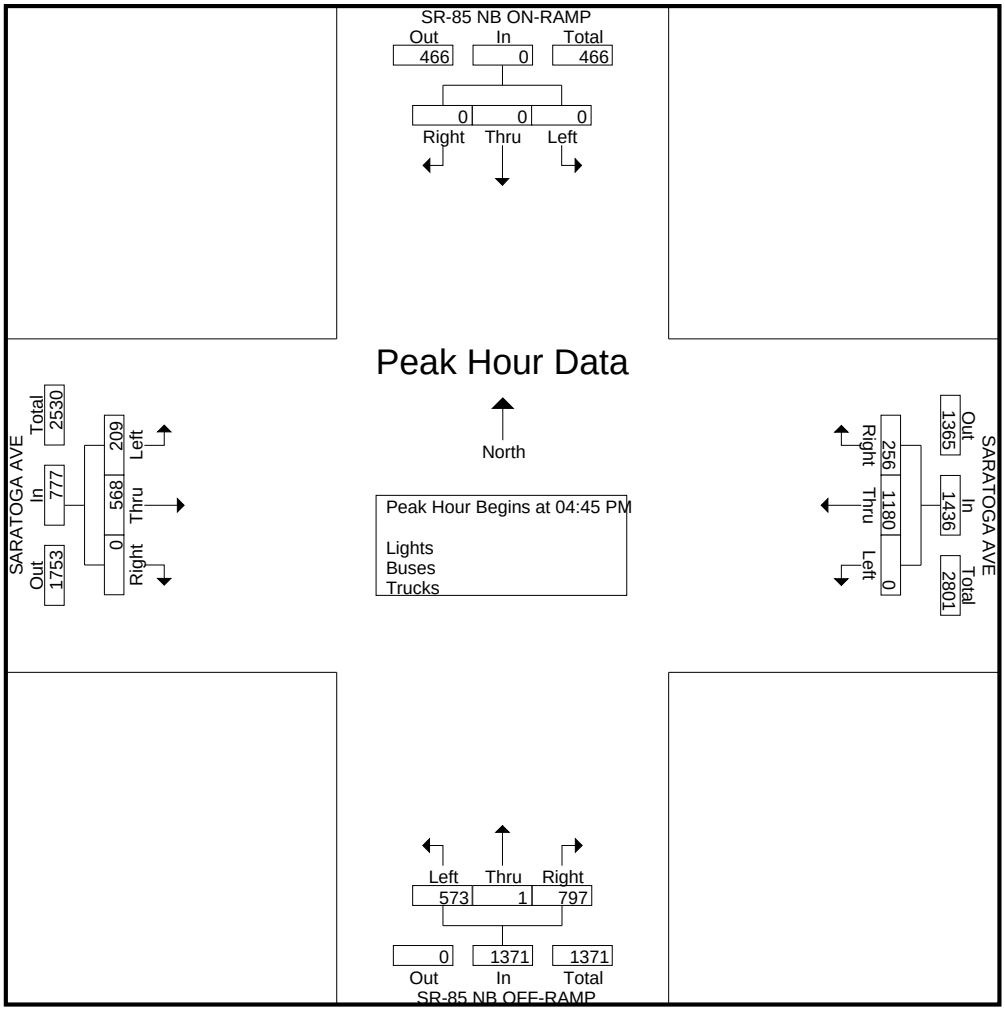
Page No : 2



# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 3PM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 1

Groups Printed- Bikes

| | SR-85 NB ON-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 NB OFF-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 3 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 3 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | |

| | SR-85 NB ON-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 NB OFF-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | **2** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 |
| % App. Total | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .375 | .375 |

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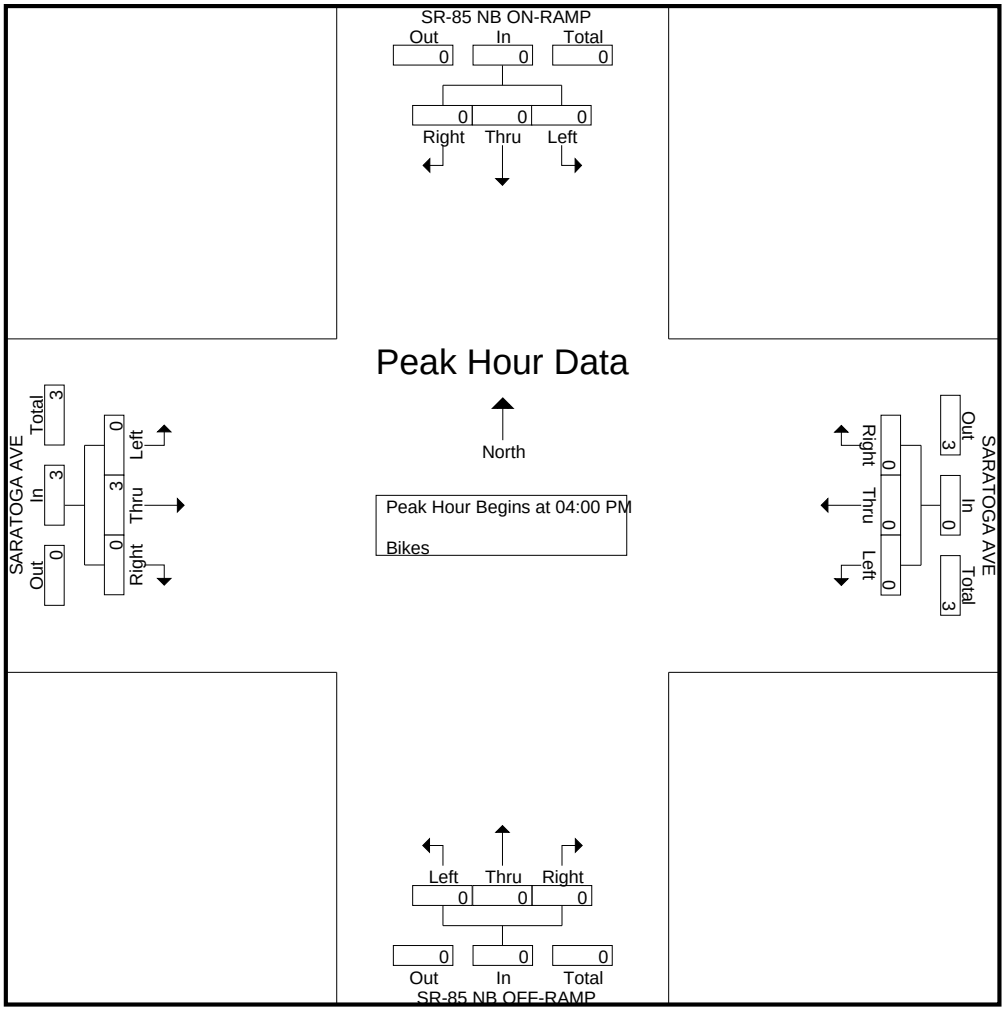
File Name : 3PM FINAL
Site Code : 00000003
Start Date : 3/29/2018
Page No : 2



# Traffic Data Service

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**(408) 622-4787**
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File Name : 4AM FINAL
Site Code : 00000004
Start Date : 3/29/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SR-85 SB OFF-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 SB ON-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 17 | 0 | 23 | 2 | 42 | 0 | 60 | 55 | 0 | 115 | 0 | 0 | 0 | 2 | 2 | 69 | 131 | 0 | 0 | 200 | 359 |
| 07:15 AM | 33 | 0 | 24 | 0 | 57 | 0 | 88 | 69 | 0 | 157 | 0 | 0 | 0 | 0 | 0 | 75 | 160 | 0 | 0 | 235 | 449 |
| 07:30 AM | 45 | 0 | 46 | 0 | 91 | 0 | 120 | 89 | 0 | 209 | 0 | 0 | 0 | 0 | 0 | 102 | 220 | 0 | 0 | 322 | 622 |
| 07:45 AM | 47 | 0 | 67 | 0 | 114 | 0 | 193 | 125 | 0 | 318 | 0 | 0 | 0 | 0 | 0 | 129 | 226 | 0 | 0 | 355 | 787 |
| Total | 142 | 0 | 160 | 2 | 304 | 0 | 461 | 338 | 0 | 799 | 0 | 0 | 0 | 2 | 2 | 375 | 737 | 0 | 0 | 1112 | 2217 |
| 08:00 AM | 43 | 0 | 56 | 0 | 99 | 0 | 164 | 129 | 0 | 293 | 0 | 0 | 0 | 2 | 2 | 153 | 311 | 0 | 0 | 464 | 858 |
| 08:15 AM | 30 | 0 | 37 | 0 | 67 | 0 | 110 | 142 | 0 | 252 | 0 | 0 | 0 | 0 | 0 | 161 | 280 | 0 | 0 | 441 | 760 |
| 08:30 AM | 42 | 0 | 42 | 0 | 84 | 0 | 108 | 142 | 0 | 250 | 0 | 0 | 0 | 0 | 0 | 141 | 234 | 0 | 0 | 375 | 709 |
| 08:45 AM | 36 | 0 | 64 | 0 | 100 | 0 | 137 | 141 | 0 | 278 | 0 | 0 | 0 | 0 | 0 | 134 | 178 | 0 | 0 | 312 | 690 |
| Total | 151 | 0 | 199 | 0 | 350 | 0 | 519 | 554 | 0 | 1073 | 0 | 0 | 0 | 2 | 2 | 589 | 1003 | 0 | 0 | 1592 | 3017 |
| Grand Total | 293 | 0 | 359 | 2 | 654 | 0 | 980 | 892 | 0 | 1872 | 0 | 0 | 0 | 4 | 4 | 964 | 1740 | 0 | 0 | 2704 | 5234 |
| Apprch % | 44.8 | 0 | 54.9 | 0.3 | | 0 | 52.4 | 47.6 | 0 | | 0 | 0 | 0 | 100 | | 35.7 | 64.3 | 0 | 0 | | |
| Total % | 5.6 | 0 | 6.9 | 0 | 12.5 | 0 | 18.7 | 17 | 0 | 35.8 | 0 | 0 | 0 | 0.1 | 0.1 | 18.4 | 33.2 | 0 | 0 | 51.7 | |
| Lights | 282 | 0 | 352 | 2 | 636 | 0 | 963 | 882 | 0 | 1845 | 0 | 0 | 0 | 4 | 4 | 957 | 1721 | 0 | 0 | 2678 | 5163 |
| % Lights | 96.2 | 0 | 98.1 | 100 | 97.2 | 0 | 98.3 | 98.9 | 0 | 98.6 | 0 | 0 | 0 | 100 | 100 | 99.3 | 98.9 | 0 | 0 | 99 | 98.6 |
| Buses | 6 | 0 | 3 | 0 | 9 | 0 | 9 | 7 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 14 | 39 |
| % Buses | 2 | 0 | 0.8 | 0 | 1.4 | 0 | 0.9 | 0.8 | 0 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0.6 | 0 | 0 | 0.5 | 0.7 |
| Trucks | 5 | 0 | 4 | 0 | 9 | 0 | 8 | 3 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 0 | 0 | 12 | 32 |
| % Trucks | 1.7 | 0 | 1.1 | 0 | 1.4 | 0 | 0.8 | 0.3 | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0.5 | 0 | 0 | 0.4 | 0.6 |

| | SR-85 SB OFF-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 SB ON-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | **47** | 0 | **67** | **114** | 0 | **193** | 125 | **318** | 0 | 0 | 0 | 0 | 129 | 226 | 0 | 355 | 787 |
| 08:00 AM | 43 | 0 | 56 | 99 | 0 | 164 | 129 | 293 | 0 | 0 | 0 | 0 | 153 | **311** | 0 | **464** | **856** |
| 08:15 AM | 30 | 0 | 37 | 67 | 0 | 110 | **142** | 252 | 0 | 0 | 0 | 0 | **161** | 280 | 0 | 441 | 760 |
| 08:30 AM | 42 | 0 | 42 | 84 | 0 | 108 | 142 | 250 | 0 | 0 | 0 | 0 | 141 | 234 | 0 | 375 | 709 |
| Total Volume | 162 | 0 | 202 | 364 | 0 | 575 | 538 | 1113 | 0 | 0 | 0 | 0 | 584 | 1051 | 0 | 1635 | 3112 |
| % App. Total | 44.5 | 0 | 55.5 | | 0 | 51.7 | 48.3 | | 0 | 0 | 0 | | 35.7 | 64.3 | 0 | | |
| PHF | .862 | .000 | .754 | .798 | .000 | .745 | .947 | .875 | .000 | .000 | .000 | .000 | .907 | .845 | .000 | .881 | .909 |

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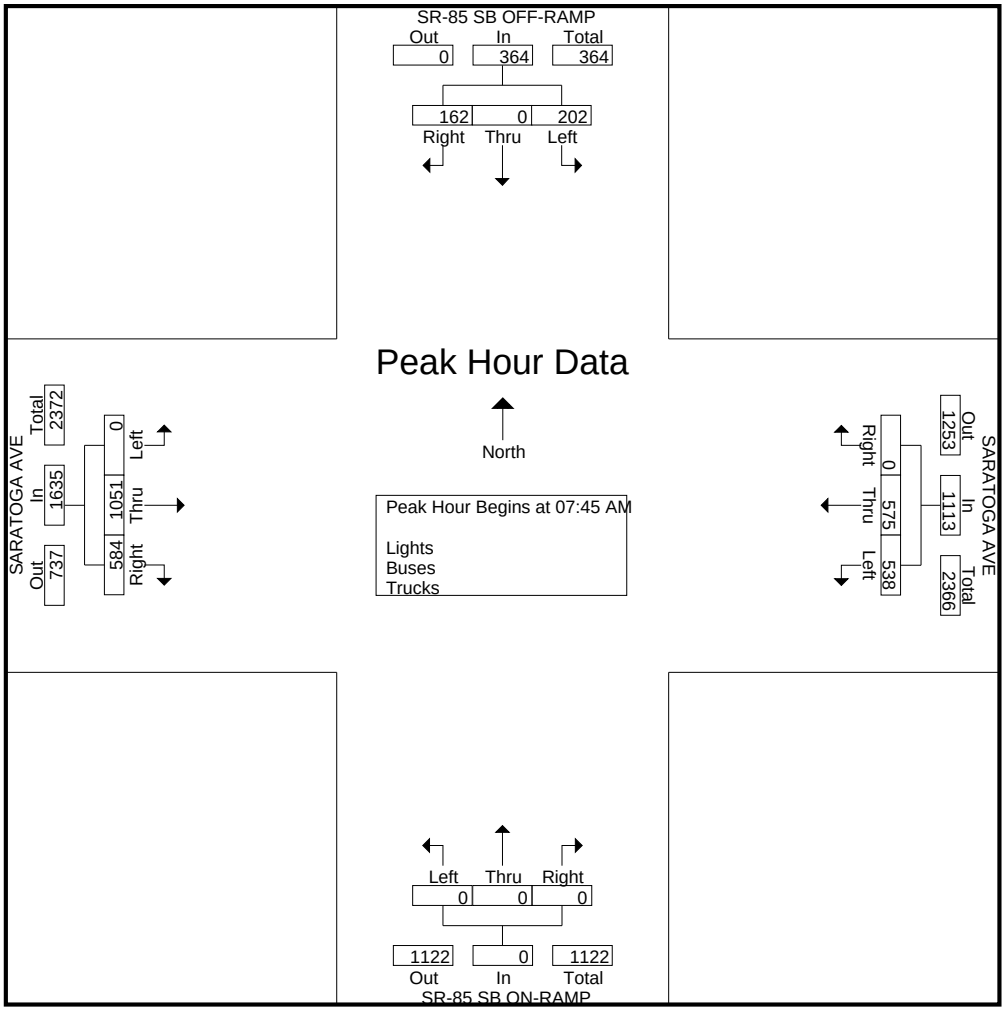

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File Name : 4AM FINAL
Site Code : 00000004
Start Date : 3/29/2018
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Groups Printed- Bikes

| | SR-85 SB OFF-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 SB ON-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 3 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 3 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 6 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0 | 0 | 33.3 | 0 | 0 | 0 | 0 | 0 | 0 | 66.7 | 0 | 0 | 66.7 | |

| | SR-85 SB OFF-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 SB ON-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **2** |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 5 |
| % App. Total | 0 | 0 | 0 | | 0 | 100 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .750 | .000 | .750 | .625 |

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File Name : 4AM FINAL
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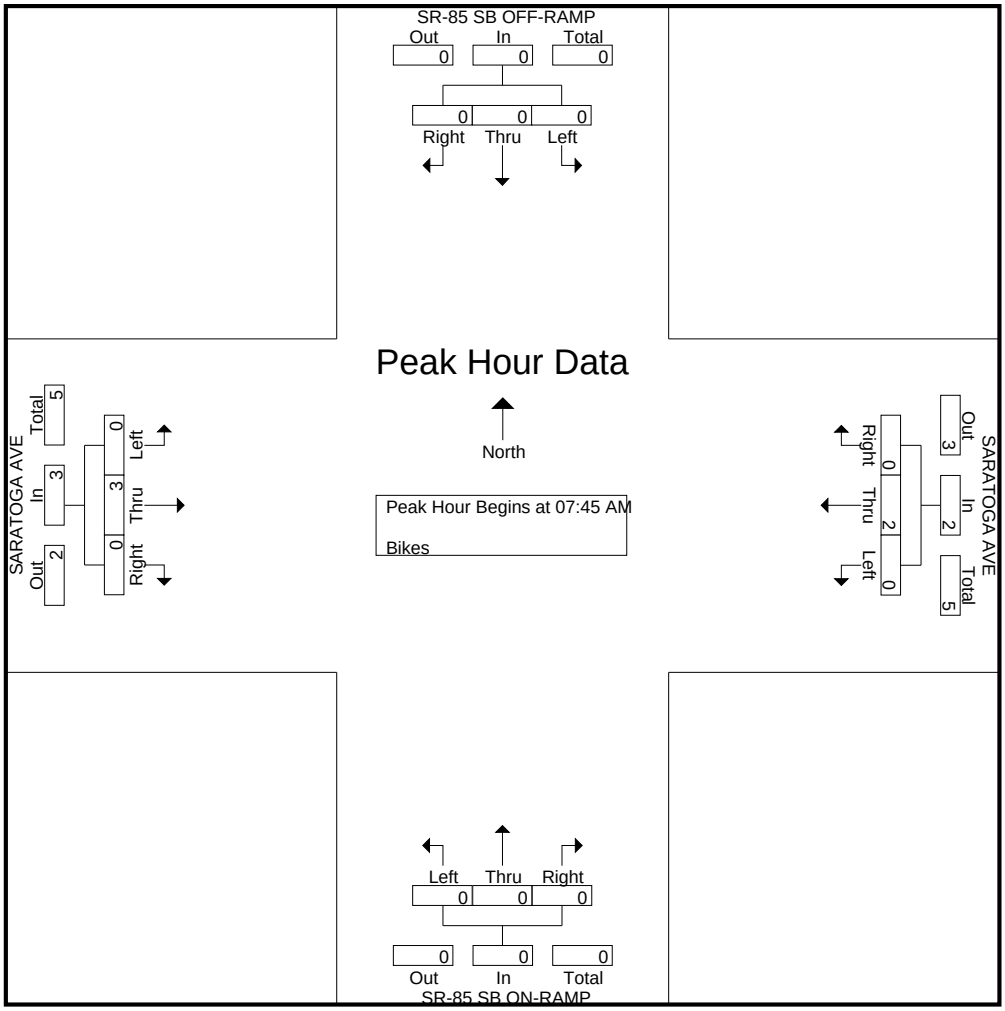

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File Name : 4PM FINAL
Site Code : 00000004
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Page No : 1

Groups Printed- Lights - Buses - Trucks

| | SR-85 SB OFF-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 SB ON-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 57 | 1 | 44 | 0 | 102 | 0 | 295 | 156 | 0 | 451 | 0 | 0 | 0 | 0 | 0 | 101 | 195 | 0 | 0 | 296 | 849 |
| 04:15 PM | 66 | 0 | 53 | 0 | 119 | 0 | 318 | 126 | 0 | 444 | 0 | 0 | 0 | 2 | 2 | 77 | 148 | 0 | 0 | 225 | 790 |
| 04:30 PM | 41 | 0 | 44 | 0 | 85 | 0 | 280 | 137 | 0 | 417 | 0 | 0 | 0 | 0 | 0 | 101 | 162 | 0 | 0 | 263 | 765 |
| 04:45 PM | 53 | 1 | 43 | 0 | 97 | 0 | 310 | 166 | 0 | 476 | 0 | 0 | 0 | 0 | 0 | 84 | 168 | 0 | 0 | 252 | 825 |
| Total | 217 | 2 | 184 | 0 | 403 | 0 | 1203 | 585 | 0 | 1788 | 0 | 0 | 0 | 2 | 2 | 363 | 673 | 0 | 0 | 1036 | 3229 |
| 05:00 PM | 45 | 0 | 48 | 0 | 93 | 0 | 250 | 171 | 0 | 421 | 0 | 0 | 0 | 0 | 0 | 104 | 152 | 0 | 0 | 256 | 770 |
| 05:15 PM | 48 | 1 | 50 | 0 | 99 | 0 | 282 | 131 | 0 | 413 | 0 | 0 | 0 | 0 | 0 | 80 | 146 | 0 | 0 | 226 | 738 |
| 05:30 PM | 63 | 1 | 43 | 0 | 107 | 0 | 292 | 159 | 0 | 451 | 0 | 0 | 0 | 0 | 0 | 84 | 155 | 0 | 0 | 239 | 797 |
| 05:45 PM | 56 | 2 | 51 | 0 | 109 | 0 | 320 | 139 | 0 | 459 | 0 | 0 | 0 | 0 | 0 | 84 | 158 | 0 | 0 | 242 | 810 |
| Total | 212 | 4 | 192 | 0 | 408 | 0 | 1144 | 600 | 0 | 1744 | 0 | 0 | 0 | 0 | 0 | 352 | 611 | 0 | 0 | 963 | 3115 |
| Grand Total | 429 | 6 | 376 | 0 | 811 | 0 | 2347 | 1185 | 0 | 3532 | 0 | 0 | 0 | 2 | 2 | 715 | 1284 | 0 | 0 | 1999 | 6344 |
| Apprch % | 52.9 | 0.7 | 46.4 | 0 | | 0 | 66.4 | 33.6 | 0 | | 0 | 0 | 0 | 100 | | 35.8 | 64.2 | 0 | 0 | | |
| Total % | 6.8 | 0.1 | 5.9 | 0 | 12.8 | 0 | 37 | 18.7 | 0 | 55.7 | 0 | 0 | 0 | 0 | 0 | 11.3 | 20.2 | 0 | 0 | 31.5 | |
| Lights | 426 | 6 | 375 | 0 | 807 | 0 | 2340 | 1181 | 0 | 3521 | 0 | 0 | 0 | 2 | 2 | 704 | 1267 | 0 | 0 | 1971 | 6301 |
| % Lights | 99.3 | 100 | 99.7 | 0 | 99.5 | 0 | 99.7 | 99.7 | 0 | 99.7 | 0 | 0 | 0 | 100 | 100 | 98.5 | 98.7 | 0 | 0 | 98.6 | 99.3 |
| Buses | 3 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 9 | 16 |
| % Buses | 0.7 | 0 | 0 | 0 | 0.4 | 0 | 0.2 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.6 | 0 | 0 | 0.5 | 0.3 |
| Trucks | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 4 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 10 | 9 | 0 | 0 | 19 | 27 |
| % Trucks | 0 | 0 | 0.3 | 0 | 0.1 | 0 | 0.1 | 0.3 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0.7 | 0 | 0 | 1 | 0.4 |

| | SR-85 SB OFF-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 SB ON-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 57 | **1** | 44 | 102 | 0 | 295 | 156 | 451 | 0 | 0 | 0 | 0 | **101** | **195** | 0 | **296** | **849** |
| 04:15 PM | **66** | 0 | **53** | **119** | 0 | **318** | 126 | 444 | 0 | 0 | 0 | 0 | 77 | 148 | 0 | 225 | 788 |
| 04:30 PM | 41 | 0 | 44 | 85 | 0 | 280 | 137 | 417 | 0 | 0 | 0 | 0 | 101 | 162 | 0 | 263 | 765 |
| 04:45 PM | 53 | 1 | 43 | 97 | 0 | 310 | **166** | **476** | 0 | 0 | 0 | 0 | 84 | 168 | 0 | 252 | 825 |
| Total Volume | 217 | 2 | 184 | 403 | 0 | 1203 | 585 | 1788 | 0 | 0 | 0 | 0 | 363 | 673 | 0 | 1036 | 3227 |
| % App. Total | 53.8 | 0.5 | 45.7 | | 0 | 67.3 | 32.7 | | 0 | 0 | 0 | | 35 | 65 | 0 | | |
| PHF | .822 | .500 | .868 | .847 | .000 | .946 | .881 | .939 | .000 | .000 | .000 | .000 | .899 | .863 | .000 | .875 | .950 |

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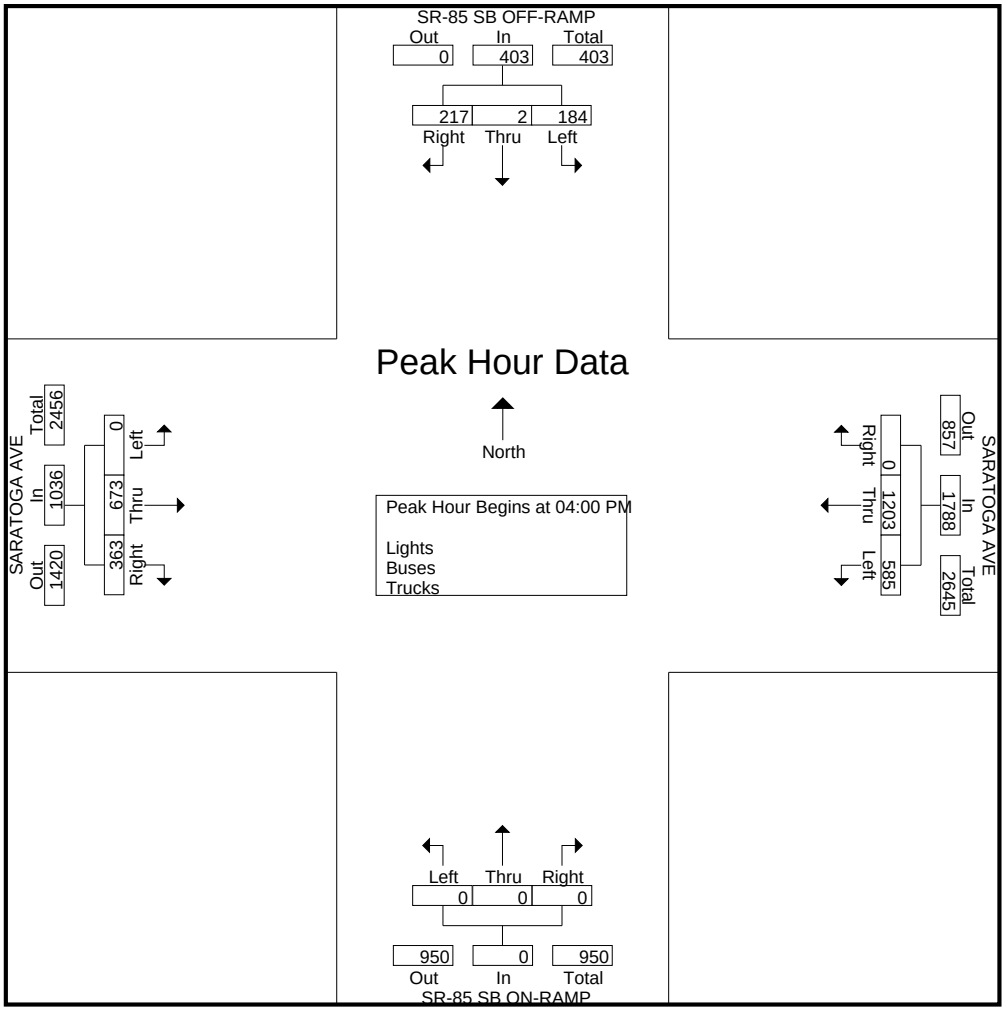

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File Name : 4PM FINAL
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Groups Printed- Bikes

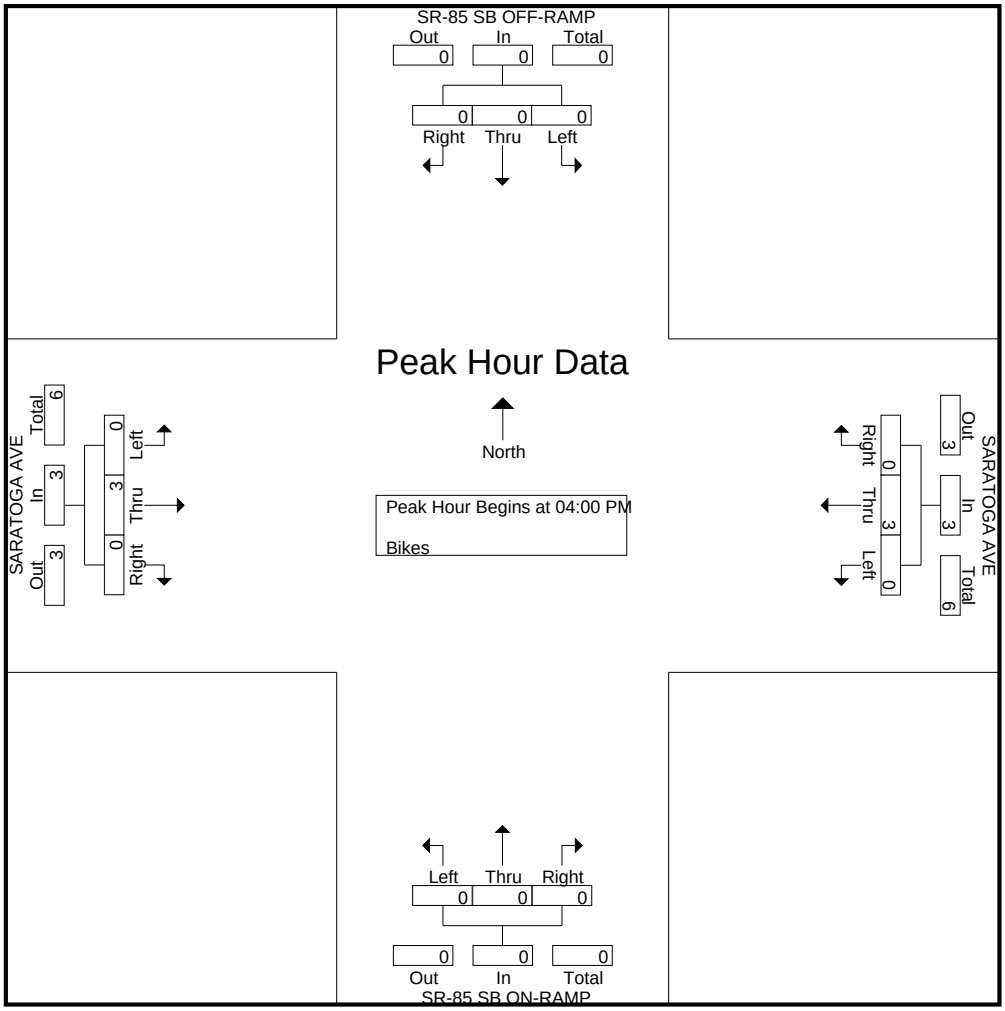
| | SR-85 SB OFF-RAMP Southbound | | | | | SARATOGA AVE Westbound | | | | | SR-85 SB ON-RAMP Northbound | | | | | SARATOGA AVE Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 6 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 7 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 42.9 | 0 | 0 | 42.9 | 0 | 0 | 0 | 0 | 0 | 0 | 57.1 | 0 | 0 | 57.1 | |

| | SR-85 SB OFF-RAMP Southbound | | | | SARATOGA AVE Westbound | | | | SR-85 SB ON-RAMP Northbound | | | | SARATOGA AVE Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | **3** |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 3 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 6 |
| % App. Total | 0 | 0 | 0 | | 0 | 100 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .375 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .375 | .500 |

# Traffic Data Service

San Jose, CA
**(408) 622-4787**
***tdsbay@cs.com***

File Name : 4PM FINAL
Site Code : 00000004
Start Date : 3/29/2018
Page No : 2

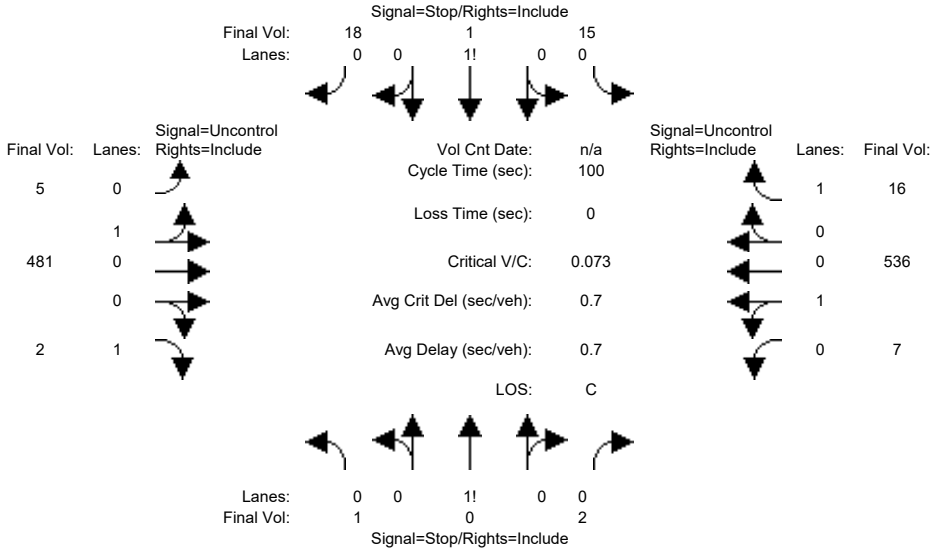


# APPENDIX B: INTERSECTION LEVEL OF SERVICE CALCULATIONS

Palm Villas TIA
1025-446_Phase 16
Existing PP AM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1    0     2    15    1    18     5  481     2     7  536    16
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:    1    0     2    15    1    18     5  481     2     7  536    16
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:    1    0     2    15    1    18     5  481     2     7  536    16
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:     1    0     2    15    1    18     5  481     2     7  536    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    1    0     2    15    1    18     5  481     2     7  536    16
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1059 1057   481  1043 1043   536   552 xxxx xxxxx   483 xxxx xxxxx
Potent Cap.:  204  227   589   209  231   549  1028 xxxx xxxxx  1090 xxxx xxxxx
Move Cap.:    195  224   589   207  229   549  1028 xxxx xxxxx  1090 xxxx xxxxx
Volume/Cap:  0.01 0.00  0.00  0.07 0.00  0.03  0.00 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.5 xxxx xxxxx   8.3 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  352 xxxxx  xxxx  310 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.0 xxxxx xxxxx  0.4 xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 15.3 xxxxx xxxxx 18.0 xxxxx   8.5 xxxx xxxxx   8.3 xxxx xxxxx
Shared LOS:     *    C     *     *    C     *     A    *     *     A    *     *
ApproachDel:      15.3             18.0           xxxxxx           xxxxxx
ApproachLOS:         C                C                *                *
Note: Queue reported is the number of cars per lane.
                    Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    1    0     2    15    1    18     5  481     2     7  536    16
ApproachDel:      15.3             18.0           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1084]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=34]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1084]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    1    0     2    15    1    18     5  481     2     7  536    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1047
Minor Approach Volume:           34
Minor Approach Volume Threshold: 269
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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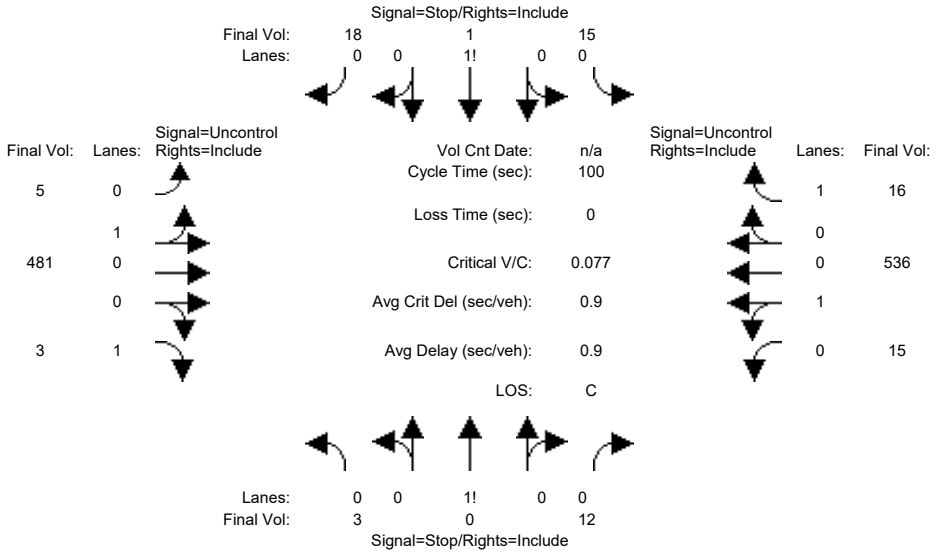
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PP AM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1    0     2    15    1    18     5  481     2     7  536    16
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:    1    0     2    15    1    18     5  481     2     7  536    16
Added Vol:      2    0    10     0    0     0     0    0     1     8    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    3    0    12    15    1    18     5  481     3    15  536    16
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:     3    0    12    15    1    18     5  481     3    15  536    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    3    0    12    15    1    18     5  481     3    15  536    16
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1075 1073   481  1065 1060   536   552 xxxx xxxxx   484 xxxx xxxxx
Potent Cap.:  199  222   589   202  226   549  1028 xxxx xxxxx  1089 xxxx xxxxx
Move Cap.:    189  218   589   195  222   549  1028 xxxx xxxxx  1089 xxxx xxxxx
Volume/Cap:  0.02 0.00  0.02  0.08 0.00  0.03  0.00 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.5 xxxx xxxxx   8.4 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  414 xxxxx  xxxx  298 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx  0.4 xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 14.0 xxxxx xxxxx 18.6 xxxxx   8.5 xxxx xxxxx   8.4 xxxx xxxxx
Shared LOS:     *    B     *     *    C     *     A    *     *     A    *     *
ApproachDel:      14.0             18.6           xxxxxx           xxxxxx
ApproachLOS:         B                C                *                *
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0    12    15    1    18     5  481     3    15  536    16
ApproachDel:      14.0             18.6           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1105]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=34]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1105]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0    12    15    1    18     5  481     3    15  536    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1056
Minor Approach Volume:           34
Minor Approach Volume Threshold: 266
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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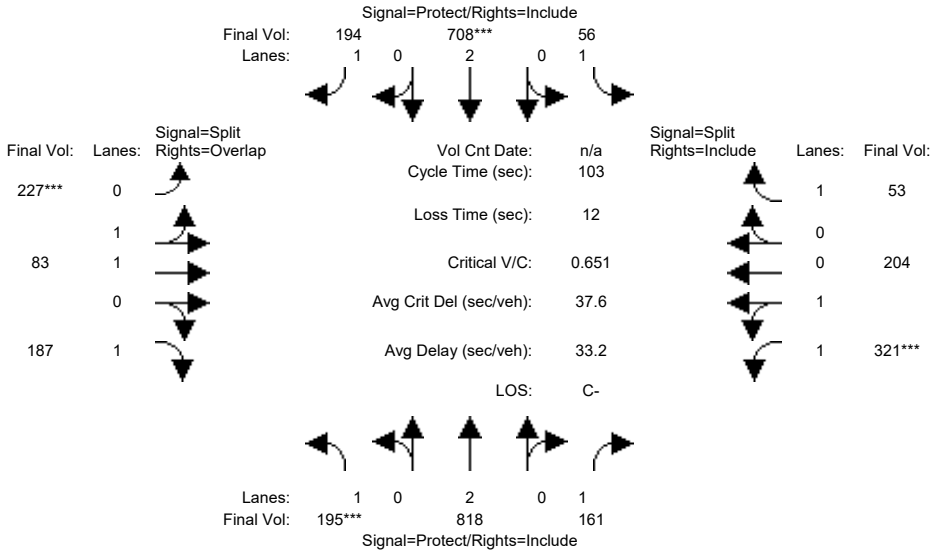
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.23 | 0.77 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2170 | 1379 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.22 | 0.09 | 0.03 | 0.19 | 0.11 | 0.13 | 0.04 | 0.11 | 0.15 | 0.15 | 0.03 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |
| Green Time: | 17.6 | 35.8 | 35.8 | 11.3 | 29.5 | 29.5 | 20.5 | 20.5 | 38.1 | 23.4 | 23.4 | 23.4 |
| Volume/Cap: | 0.65 | 0.62 | 0.26 | 0.29 | 0.65 | 0.39 | 0.65 | 0.22 | 0.29 | 0.65 | 0.65 | 0.13 |
| Delay/Veh: | 44.8 | 28.8 | 24.4 | 43.0 | 33.7 | 30.0 | 41.1 | 34.6 | 23.1 | 38.0 | 38.0 | 31.9 |
| 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: | 44.8 | 28.8 | 24.4 | 43.0 | 33.7 | 30.0 | 41.1 | 34.6 | 23.1 | 38.0 | 38.0 | 31.9 |
| LOS by Move: | D | C | C | D | C- | C | D | C- | C | D+ | D+ | C |
| HCM2k95thQ: | 12 | 20 | 8 | 4 | 19 | 11 | 15 | 5 | 9 | 17 | 17 | 3 |

Note: Queue reported is the number of cars per lane.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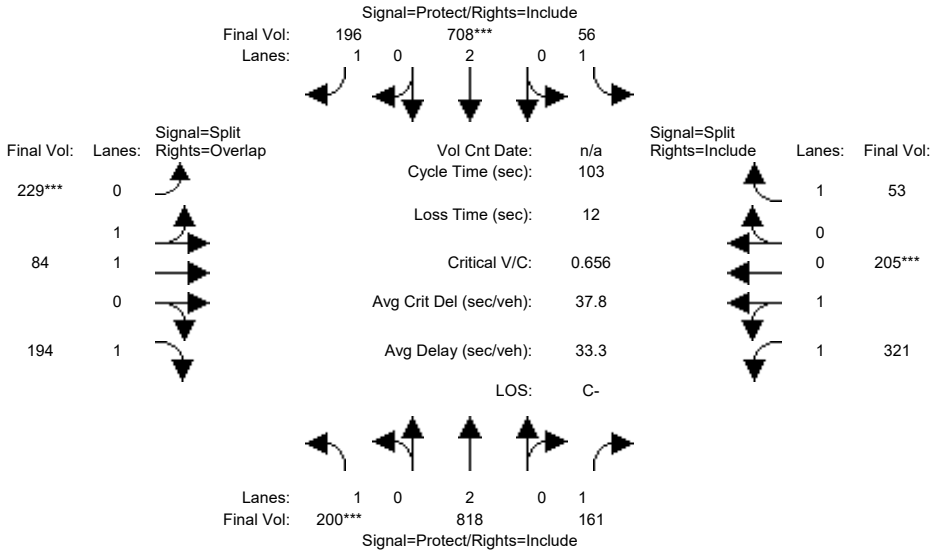
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| Added Vol: | 5 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 7 | 0 | 1 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 200 | 818 | 161 | 56 | 708 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| 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: | 200 | 818 | 161 | 56 | 708 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 200 | 818 | 161 | 56 | 708 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| 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: | 200 | 818 | 161 | 56 | 708 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.23 | 0.77 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2166 | 1383 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.22 | 0.09 | 0.03 | 0.19 | 0.11 | 0.13 | 0.04 | 0.11 | 0.15 | 0.15 | 0.03 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 17.9 | 35.9 | 35.9 | 11.3 | 29.3 | 29.3 | 20.5 | 20.5 | 38.5 | 23.3 | 23.3 | 23.3 |
| Volume/Cap: | 0.66 | 0.62 | 0.26 | 0.29 | 0.66 | 0.39 | 0.66 | 0.22 | 0.30 | 0.66 | 0.66 | 0.13 |
| Delay/Veh: | 44.8 | 28.8 | 24.3 | 43.0 | 33.9 | 30.3 | 41.3 | 34.6 | 23.0 | 38.2 | 38.2 | 32.0 |
| 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: | 44.8 | 28.8 | 24.3 | 43.0 | 33.9 | 30.3 | 41.3 | 34.6 | 23.0 | 38.2 | 38.2 | 32.0 |
| LOS by Move: | D | C | C | D | C- | C | D | C- | C+ | D+ | D+ | C |
| HCM2k95thQ: | 12 | 19 | 8 | 4 | 20 | 11 | 16 | 5 | 9 | 17 | 17 | 3 |

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

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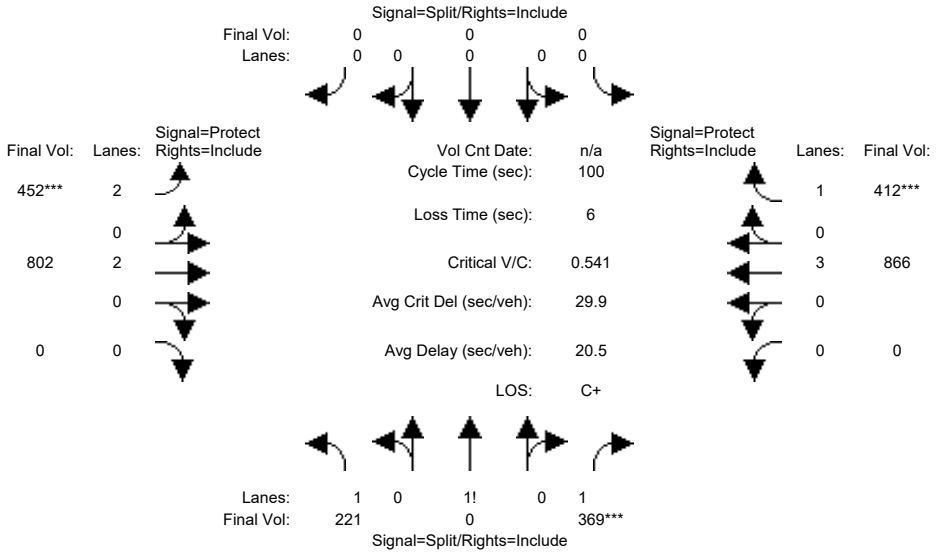
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.37 | 0.00 | 1.63 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2406 | 0 | 2844 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.14 | 0.21 | 0.00 | 0.00 | 0.15 | 0.24 |
| Crit Moves: | | | **** | | | | **** | | | | | **** |
| Green Time: | 24.0 | 0.0 | 24.0 | 0.0 | 0.0 | 0.0 | 26.5 | 70.0 | 0.0 | 0.0 | 43.5 | 43.5 |
| Volume/Cap: | 0.38 | 0.00 | 0.54 | 0.00 | 0.00 | 0.00 | 0.54 | 0.30 | 0.00 | 0.00 | 0.35 | 0.54 |
| Delay/Veh: | 32.0 | 0.0 | 33.8 | 0.0 | 0.0 | 0.0 | 32.2 | 5.8 | 0.0 | 0.0 | 18.9 | 21.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 32.0 | 0.0 | 33.8 | 0.0 | 0.0 | 0.0 | 32.2 | 5.8 | 0.0 | 0.0 | 18.9 | 21.7 |
| LOS by Move: | C | A | C- | A | A | A | C- | A | A | A | B- | C+ |
| HCM2k95thQ: | 9 | 0 | 14 | 0 | 0 | 0 | 13 | 9 | 0 | 0 | 11 | 18 |

Note: Queue reported is the number of cars per lane.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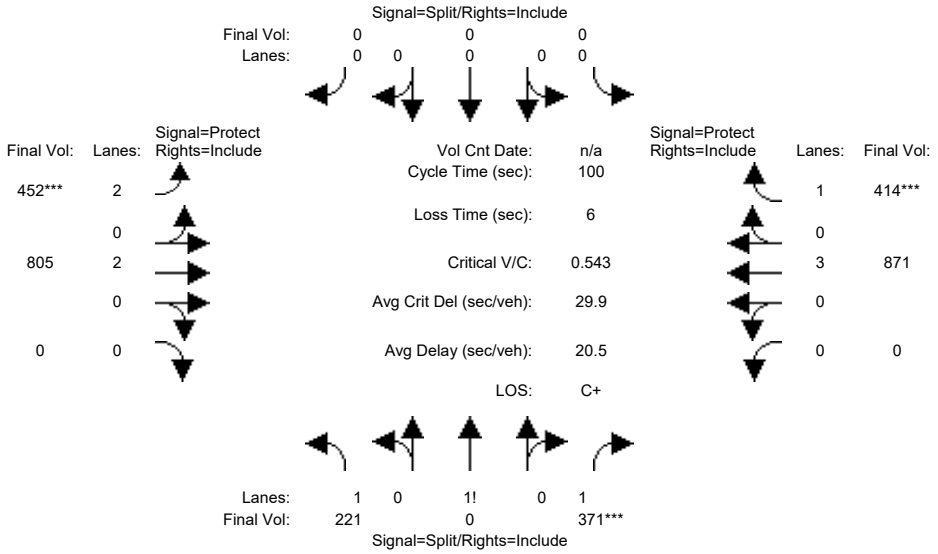
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| Added Vol: | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 221 | 0 | 371 | 0 | 0 | 0 | 452 | 805 | 0 | 0 | 871 | 414 |
| 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: | 221 | 0 | 371 | 0 | 0 | 0 | 452 | 805 | 0 | 0 | 871 | 414 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 221 | 0 | 371 | 0 | 0 | 0 | 452 | 805 | 0 | 0 | 871 | 414 |
| 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: | 221 | 0 | 371 | 0 | 0 | 0 | 452 | 805 | 0 | 0 | 871 | 414 |
| 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 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.37 | 0.00 | 1.63 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2403 | 0 | 2847 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.14 | 0.21 | 0.00 | 0.00 | 0.15 | 0.24 |
| Crit Moves: | | | **** | | | | **** | | | | | **** |
| Green Time: | 24.0 | 0.0 | 24.0 | 0.0 | 0.0 | 0.0 | 26.4 | 70.0 | 0.0 | 0.0 | 43.6 | 43.6 |
| Volume/Cap: | 0.38 | 0.00 | 0.54 | 0.00 | 0.00 | 0.00 | 0.54 | 0.30 | 0.00 | 0.00 | 0.35 | 0.54 |
| Delay/Veh: | 32.0 | 0.0 | 33.8 | 0.0 | 0.0 | 0.0 | 32.3 | 5.8 | 0.0 | 0.0 | 18.9 | 21.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 32.0 | 0.0 | 33.8 | 0.0 | 0.0 | 0.0 | 32.3 | 5.8 | 0.0 | 0.0 | 18.9 | 21.7 |
| LOS by Move: | C | A | C- | A | A | A | C- | A | A | A | B- | C+ |
| HCM2k95thQ: | 9 | 0 | 14 | 0 | 0 | 0 | 13 | 9 | 0 | 0 | 11 | 18 |

Note: Queue reported is the number of cars per lane.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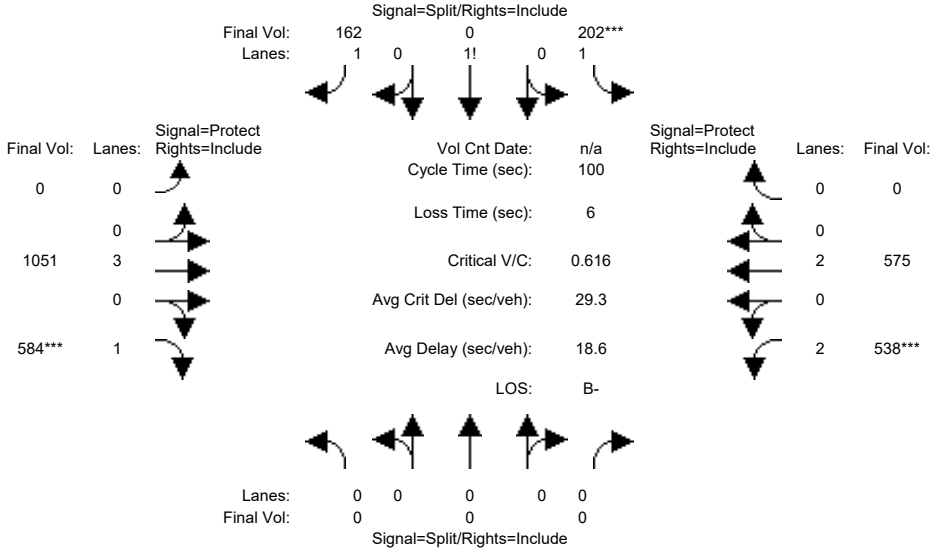
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 1.45 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2721 | 0 | 2529 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.06 | 0.00 | 0.18 | 0.33 | 0.17 | 0.15 | 0.00 |
| Crit Moves: | | | | **** | | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 12.1 | 0.0 | 54.2 | 54.2 | 27.7 | 81.9 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.53 | 0.00 | 0.34 | 0.62 | 0.62 | 0.18 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 43.7 | 0.0 | 42.1 | 0.0 | 12.9 | 17.0 | 32.8 | 1.9 | 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: | 0.0 | 0.0 | 0.0 | 43.7 | 0.0 | 42.1 | 0.0 | 12.9 | 17.0 | 32.8 | 1.9 | 0.0 |
| LOS by Move: | A | A | A | D | A | D | A | B | B | C- | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 10 | 0 | 8 | 0 | 12 | 24 | 16 | 4 | 0 |

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

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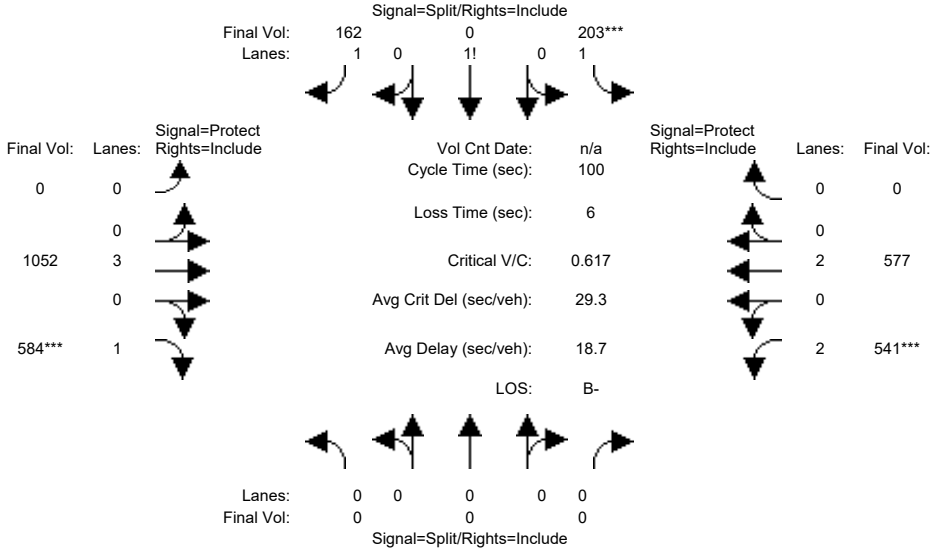
Palm Villas TIA
1025-446_Phase 16
Existing PP AM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 0 |
| Added Vol: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1052 | 584 | 541 | 577 | 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: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1052 | 584 | 541 | 577 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1052 | 584 | 541 | 577 | 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: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1052 | 584 | 541 | 577 | 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 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.56 | 0.00 | 1.44 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2723 | 0 | 2527 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.06 | 0.00 | 0.18 | 0.33 | 0.17 | 0.15 | 0.00 |
| Crit Moves: | | | | **** | | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 12.1 | 0.0 | 54.1 | 54.1 | 27.8 | 81.9 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.53 | 0.00 | 0.34 | 0.62 | 0.62 | 0.19 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 43.7 | 0.0 | 42.1 | 0.0 | 13.0 | 17.1 | 32.8 | 2.0 | 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 | 43.7 | 0.0 | 42.1 | 0.0 | 13.0 | 17.1 | 32.8 | 2.0 | 0.0 |
| LOS by Move: | A | A | A | D | A | D | A | B | B | C- | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 10 | 0 | 8 | 0 | 12 | 24 | 16 | 4 | 0 |

Note: Queue reported is the number of cars per lane.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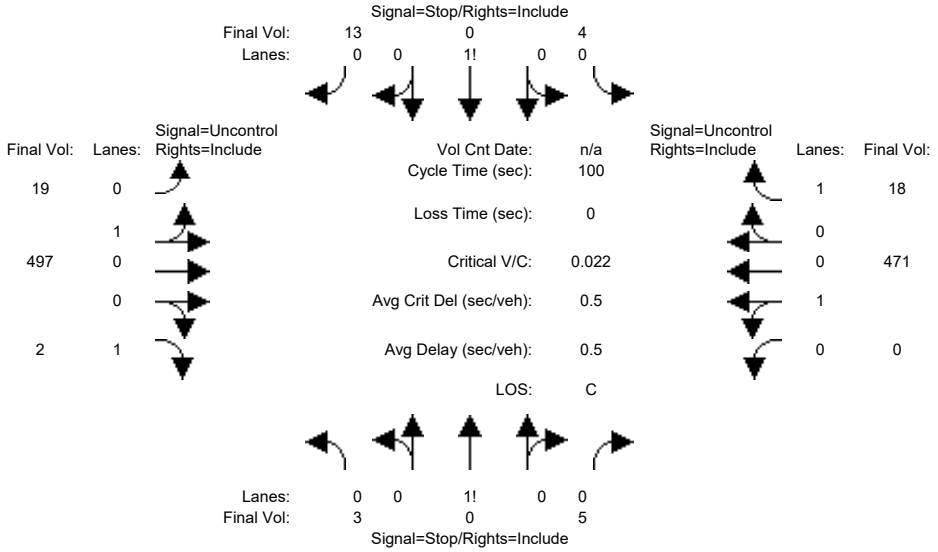
Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3    0     5     4    0    13    19  497     2     0  471    18
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:    3    0     5     4    0    13    19  497     2     0  471    18
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:    3    0     5     4    0    13    19  497     2     0  471    18
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:     3    0     5     4    0    13    19  497     2     0  471    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    3    0     5     4    0    13    19  497     2     0  471    18
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1022 1024   497  1010 1008   471   489 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  216  237   577   220  242   597  1085 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    209  233   577   216  238   597  1085 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.01 0.00  0.01  0.02 0.00  0.02  0.02 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.4 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  347 xxxxx  xxxx  422 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx  0.1 xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 15.6 xxxxx xxxxx 13.9 xxxxx   8.4 xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    C     *     *    B     *     A    *     *     A    *     *
ApproachDel:      15.6             13.9           xxxxxx           xxxxxx
ApproachLOS:         C                B                *                *
Note: Queue reported is the number of cars per lane.
                    Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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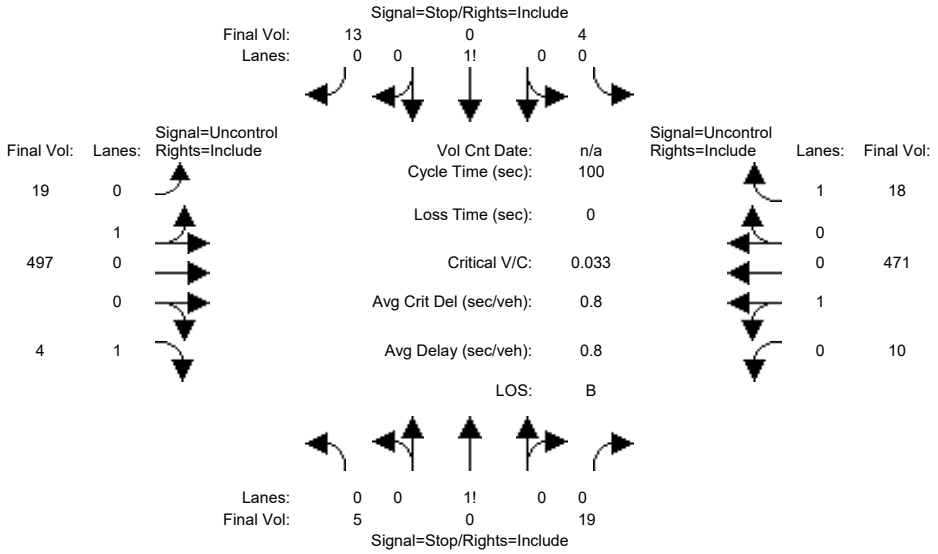
```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0     5     4    0    13    19  497     2     0  471    18
ApproachDel:      15.6             13.9           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=8]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1032]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1032]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0     5     4    0    13    19  497     2     0  471    18
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1007
Minor Approach Volume:           17
Minor Approach Volume Threshold: 282
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #1: Cox Avenue / Saratoga Creek Drive




| Street Name: | Saratoga Creek Drive | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 3 | 0 | 5 | 4 | 0 | 13 | 19 | 497 | 2 | 0 | 471 | 18 |
| 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: | 3 | 0 | 5 | 4 | 0 | 13 | 19 | 497 | 2 | 0 | 471 | 18 |
| Added Vol: | 2 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 5 | 0 | 19 | 4 | 0 | 13 | 19 | 497 | 4 | 10 | 471 | 18 |
| 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: | 5 | 0 | 19 | 4 | 0 | 13 | 19 | 497 | 4 | 10 | 471 | 18 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 5 | 0 | 19 | 4 | 0 | 13 | 19 | 497 | 4 | 10 | 471 | 18 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1042 | 1044 | 497 | 1038 | 1030 | 471 | 489 | xxxx | xxxxx | 501 | xxxx | xxxxx |
| Potent Cap.: | 210 | 231 | 577 | 211 | 235 | 597 | 1085 | xxxx | xxxxx | 1074 | xxxx | xxxxx |
| Move Cap.: | 201 | 225 | 577 | 200 | 229 | 597 | 1085 | xxxx | xxxxx | 1074 | xxxx | xxxxx |
| Volume/Cap: | 0.02 | 0.00 | 0.03 | 0.02 | 0.00 | 0.02 | 0.02 | xxxx | xxxx | 0.01 | xxxx | xxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx | 0.0 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.4 | xxxx | xxxxx | 8.4 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | A | * | * | A | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 415 | xxxxx | xxxx | 407 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 0.2 | xxxxx | xxxxx | 0.1 | xxxxx | 0.1 | xxxx | xxxxx | 0.0 | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 14.2 | xxxxx | xxxxx | 14.2 | xxxxx | 8.4 | xxxx | xxxxx | 8.4 | xxxx | xxxxx |
| Shared LOS: | * | B | * | * | B | * | A | * | * | A | * | * |
| ApproachDel: | | 14.2 | | | 14.2 | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | | B | | | B | | | * | | | * | |

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

Peak Hour Delay Signal Warrant Report

**********

Intersection #1 Cox Avenue / Saratoga Creek Drive

**********

Future Volume Alternative: Peak Hour Warrant NOT Met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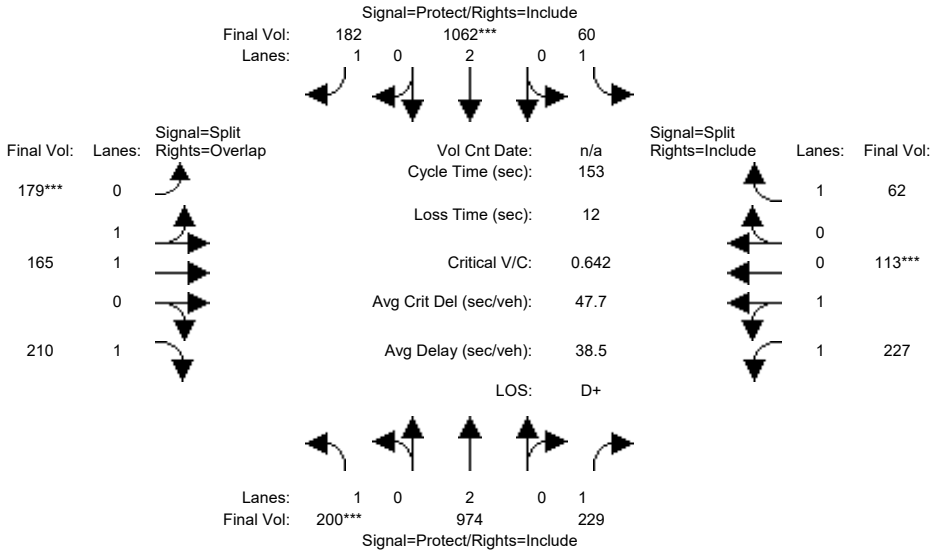
```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    5    0    19     4    0    13    19  497     4    10  471    18
ApproachDel:      14.2             14.2           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=24]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1060]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1060]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    5    0    19     4    0    13    19  497     4    10  471    18
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1019
Minor Approach Volume:           24
Minor Approach Volume Threshold: 278
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.34 | 0.66 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2370 | 1180 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.26 | 0.13 | 0.03 | 0.28 | 0.10 | 0.10 | 0.09 | 0.12 | 0.10 | 0.10 | 0.04 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 27.2 | 79.6 | 79.6 | 14.2 | 66.6 | 66.6 | 24.4 | 24.4 | 51.6 | 22.8 | 22.8 | 22.8 |
| Volume/Cap: | 0.64 | 0.49 | 0.25 | 0.37 | 0.64 | 0.24 | 0.64 | 0.55 | 0.36 | 0.64 | 0.64 | 0.24 |
| Delay/Veh: | 62.9 | 23.9 | 20.4 | 66.6 | 34.7 | 27.4 | 62.9 | 60.2 | 38.6 | 63.9 | 63.9 | 57.9 |
| 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: | 62.9 | 23.9 | 20.4 | 66.6 | 34.7 | 27.4 | 62.9 | 60.2 | 38.6 | 63.9 | 63.9 | 57.9 |
| LOS by Move: | E | C | C+ | E | C- | C | E | E | D+ | E | E | E+ |
| HCM2k95thQ: | 17 | 25 | 12 | 6 | 33 | 11 | 17 | 14 | 15 | 17 | 17 | 6 |

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

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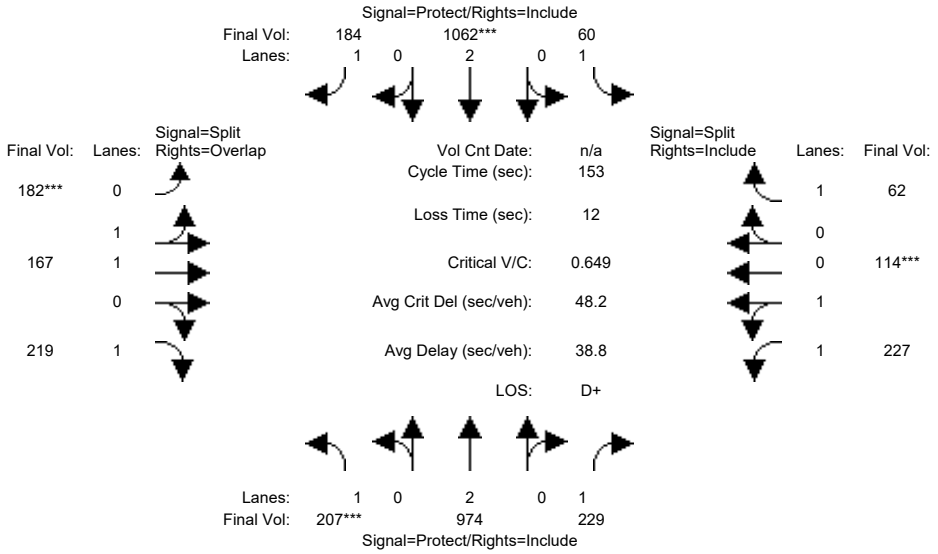
Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| Added Vol: | 7 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 9 | 0 | 1 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 207 | 974 | 229 | 60 | 1062 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| 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: | 207 | 974 | 229 | 60 | 1062 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 207 | 974 | 229 | 60 | 1062 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| 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: | 207 | 974 | 229 | 60 | 1062 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.34 | 0.66 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2363 | 1187 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.26 | 0.13 | 0.03 | 0.28 | 0.11 | 0.10 | 0.09 | 0.13 | 0.10 | 0.10 | 0.04 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 27.9 | 79.6 | 79.6 | 14.2 | 65.9 | 65.9 | 24.5 | 24.5 | 52.4 | 22.7 | 22.7 | 22.7 |
| Volume/Cap: | 0.65 | 0.49 | 0.25 | 0.37 | 0.65 | 0.24 | 0.65 | 0.55 | 0.37 | 0.65 | 0.65 | 0.24 |
| Delay/Veh: | 62.6 | 23.9 | 20.4 | 66.6 | 35.3 | 27.9 | 63.0 | 60.1 | 38.2 | 64.3 | 64.3 | 58.0 |
| 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: | 62.6 | 23.9 | 20.4 | 66.6 | 35.3 | 27.9 | 63.0 | 60.1 | 38.2 | 64.3 | 64.3 | 58.0 |
| LOS by Move: | E | C | C+ | E | D+ | C | E | E | D+ | E | E | E+ |
| HCM2k95thQ: | 17 | 25 | 12 | 6 | 33 | 11 | 18 | 15 | 15 | 17 | 17 | 6 |

Note: Queue reported is the number of cars per lane.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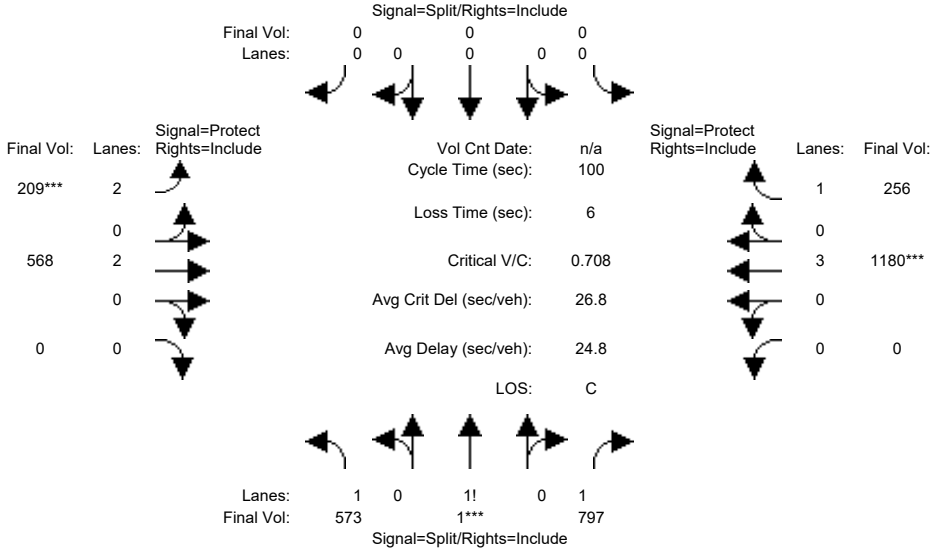
Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.41 | 0.01 | 1.58 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2481 | 3 | 2767 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.39 | 0.29 | 0.00 | 0.00 | 0.00 | 0.07 | 0.15 | 0.00 | 0.00 | 0.21 | 0.15 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 55.4 | 55.4 | 55.4 | 0.0 | 0.0 | 0.0 | 9.4 | 38.6 | 0.0 | 0.0 | 29.2 | 29.2 |
| Volume/Cap: | 0.42 | 0.71 | 0.52 | 0.00 | 0.00 | 0.00 | 0.71 | 0.39 | 0.00 | 0.00 | 0.71 | 0.50 |
| Delay/Veh: | 13.0 | 17.6 | 14.2 | 0.0 | 0.0 | 0.0 | 51.7 | 22.3 | 0.0 | 0.0 | 33.0 | 30.1 |
| 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: | 13.0 | 17.6 | 14.2 | 0.0 | 0.0 | 0.0 | 51.7 | 22.3 | 0.0 | 0.0 | 33.0 | 30.1 |
| LOS by Move: | B | B | B | A | A | A | D- | C+ | A | A | C- | C |
| HCM2k95thQ: | 15 | 30 | 19 | 0 | 0 | 0 | 8 | 12 | 0 | 0 | 19 | 13 |

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

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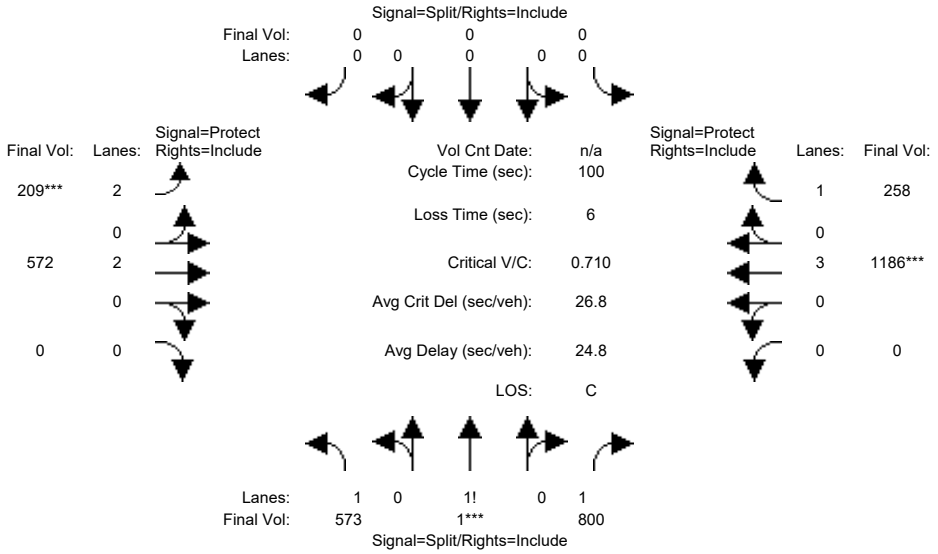
Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| Added Vol: | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 573 | 1 | 800 | 0 | 0 | 0 | 209 | 572 | 0 | 0 | 1186 | 258 |
| 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: | 573 | 1 | 800 | 0 | 0 | 0 | 209 | 572 | 0 | 0 | 1186 | 258 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 573 | 1 | 800 | 0 | 0 | 0 | 209 | 572 | 0 | 0 | 1186 | 258 |
| 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: | 573 | 1 | 800 | 0 | 0 | 0 | 209 | 572 | 0 | 0 | 1186 | 258 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.41 | 0.01 | 1.58 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2479 | 3 | 2768 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.39 | 0.29 | 0.00 | 0.00 | 0.00 | 0.07 | 0.15 | 0.00 | 0.00 | 0.21 | 0.15 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 55.3 | 55.3 | 55.3 | 0.0 | 0.0 | 0.0 | 9.3 | 38.7 | 0.0 | 0.0 | 29.3 | 29.3 |
| Volume/Cap: | 0.42 | 0.71 | 0.52 | 0.00 | 0.00 | 0.00 | 0.71 | 0.39 | 0.00 | 0.00 | 0.71 | 0.50 |
| Delay/Veh: | 13.1 | 17.7 | 14.2 | 0.0 | 0.0 | 0.0 | 51.8 | 22.3 | 0.0 | 0.0 | 33.0 | 30.1 |
| 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: | 13.1 | 17.7 | 14.2 | 0.0 | 0.0 | 0.0 | 51.8 | 22.3 | 0.0 | 0.0 | 33.0 | 30.1 |
| LOS by Move: | B | B | B | A | A | A | D- | C+ | A | A | C- | C |
| HCM2k95thQ: | 15 | 30 | 20 | 0 | 0 | 0 | 8 | 12 | 0 | 0 | 20 | 13 |

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

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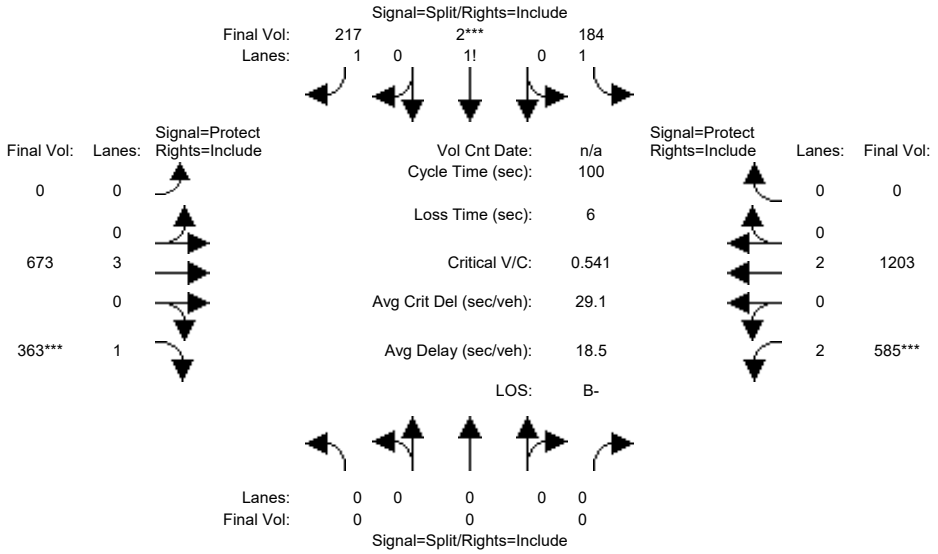
Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.45 | 0.01 | 1.54 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2545 | 17 | 2688 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.12 | 0.08 | 0.00 | 0.12 | 0.21 | 0.19 | 0.32 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 21.4 | 21.4 | 21.4 | 0.0 | 38.3 | 38.3 | 34.3 | 72.6 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.34 | 0.54 | 0.38 | 0.00 | 0.31 | 0.54 | 0.54 | 0.44 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 33.5 | 35.8 | 33.8 | 0.0 | 21.7 | 24.9 | 27.1 | 5.6 | 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 | 33.5 | 35.8 | 33.8 | 0.0 | 21.7 | 24.9 | 27.1 | 5.6 | 0.0 |
| LOS by Move: | A | A | A | C- | D+ | C- | A | C+ | C | C | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 7 | 13 | 8 | 0 | 9 | 18 | 16 | 14 | 0 |

Note: Queue reported is the number of cars per lane.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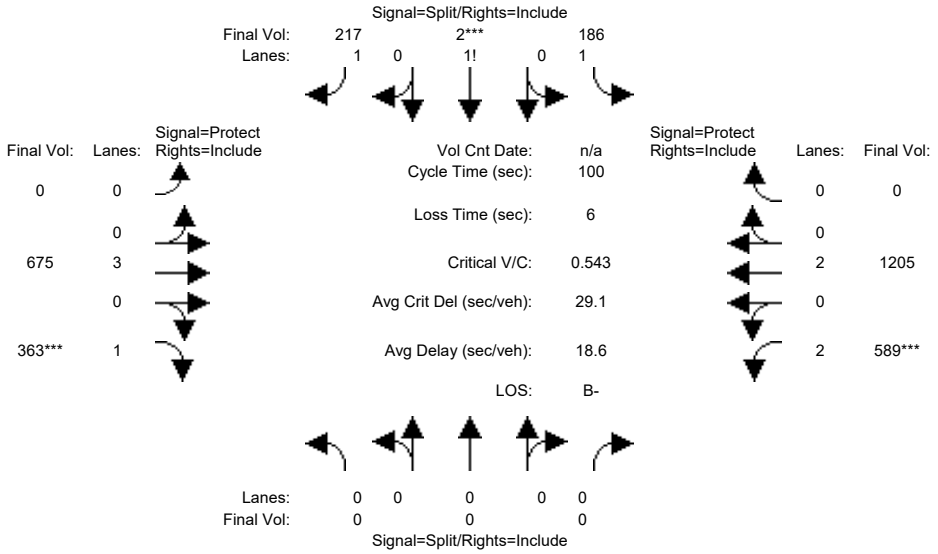
Palm Villas TIA
1025-446_Phase 16
Existing PP PM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 0 |
| Added Vol: | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 4 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 675 | 363 | 589 | 1205 | 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: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 675 | 363 | 589 | 1205 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 675 | 363 | 589 | 1205 | 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: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 675 | 363 | 589 | 1205 | 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 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.46 | 0.01 | 1.53 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2550 | 17 | 2683 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.12 | 0.08 | 0.00 | 0.12 | 0.21 | 0.19 | 0.32 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 21.4 | 21.4 | 21.4 | 0.0 | 38.2 | 38.2 | 34.4 | 72.6 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.34 | 0.54 | 0.38 | 0.00 | 0.31 | 0.54 | 0.54 | 0.44 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 33.5 | 35.8 | 33.8 | 0.0 | 21.8 | 25.0 | 27.0 | 5.6 | 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 | 33.5 | 35.8 | 33.8 | 0.0 | 21.8 | 25.0 | 27.0 | 5.6 | 0.0 |
| LOS by Move: | A | A | A | C- | D+ | C- | A | C+ | C | C | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 7 | 13 | 8 | 0 | 9 | 18 | 16 | 14 | 0 |

Note: Queue reported is the number of cars per lane.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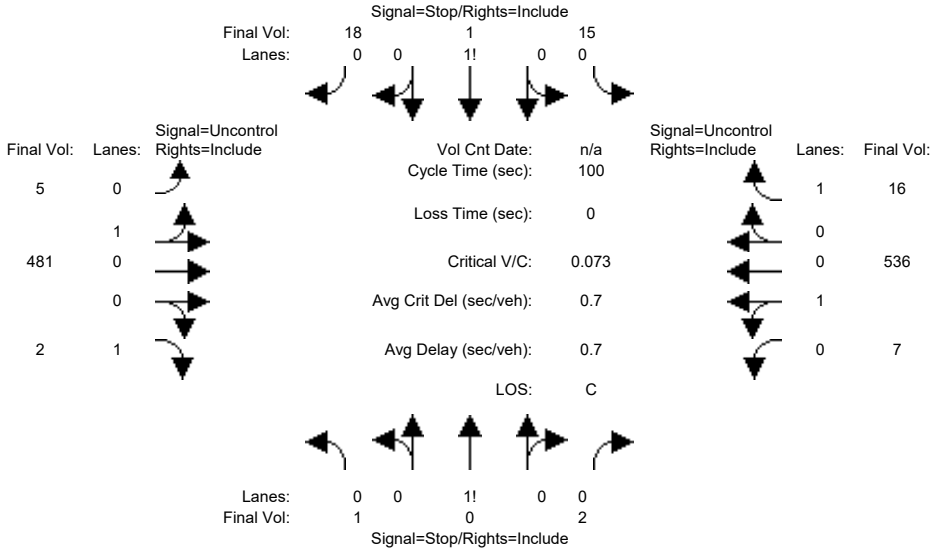
Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background AM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1    0     2    15    1    18     5  481     2     7  536    16
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:    1    0     2    15    1    18     5  481     2     7  536    16
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:    1    0     2    15    1    18     5  481     2     7  536    16
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:     1    0     2    15    1    18     5  481     2     7  536    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    1    0     2    15    1    18     5  481     2     7  536    16
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1059 1057   481  1043 1043   536   552 xxxx xxxxx   483 xxxx xxxxx
Potent Cap.:  204  227   589   209  231   549  1028 xxxx xxxxx  1090 xxxx xxxxx
Move Cap.:    195  224   589   207  229   549  1028 xxxx xxxxx  1090 xxxx xxxxx
Volume/Cap:  0.01 0.00  0.00  0.07 0.00  0.03  0.00 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.5 xxxx xxxxx   8.3 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  352 xxxxx  xxxx  310 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.0 xxxxx xxxxx  0.4 xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 15.3 xxxxx xxxxx 18.0 xxxxx   8.5 xxxx xxxxx   8.3 xxxx xxxxx
Shared LOS:     *    C     *     *    C     *     A    *     *     A    *     *
ApproachDel:      15.3             18.0           xxxxxx           xxxxxx
ApproachLOS:         C                C                *                *
Note: Queue reported is the number of cars per lane.
                    Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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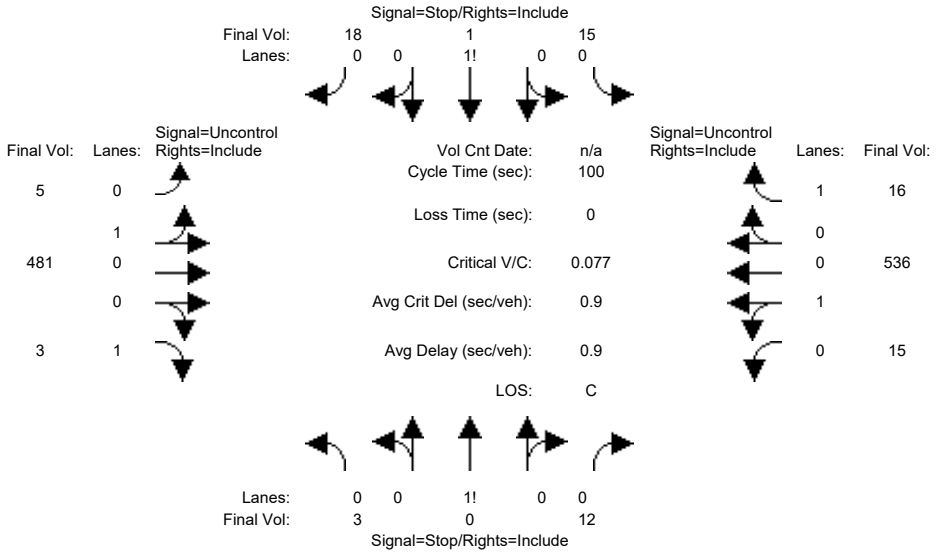
```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    1    0     2    15    1    18     5  481     2     7  536    16
ApproachDel:      15.3             18.0           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1084]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=34]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1084]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    1    0     2    15    1    18     5  481     2     7  536    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1047
Minor Approach Volume:           34
Minor Approach Volume Threshold: 269
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PP AM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1    0     2    15    1    18     5  481     2     7  536    16
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:    1    0     2    15    1    18     5  481     2     7  536    16
Added Vol:      2    0    10     0    0     0     0    0     1     8    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    3    0    12    15    1    18     5  481     3    15  536    16
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:     3    0    12    15    1    18     5  481     3    15  536    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    3    0    12    15    1    18     5  481     3    15  536    16
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1075 1073   481  1065 1060   536   552 xxxx xxxxx   484 xxxx xxxxx
Potent Cap.:  199  222   589   202  226   549  1028 xxxx xxxxx  1089 xxxx xxxxx
Move Cap.:    189  218   589   195  222   549  1028 xxxx xxxxx  1089 xxxx xxxxx
Volume/Cap:  0.02 0.00  0.02  0.08 0.00  0.03  0.00 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.5 xxxx xxxxx   8.4 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  414 xxxxx  xxxx  298 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx  0.4 xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 14.0 xxxxx xxxxx 18.6 xxxxx   8.5 xxxx xxxxx   8.4 xxxx xxxxx
Shared LOS:     *    B     *     *    C     *     A    *     *     A    *     *
ApproachDel:      14.0             18.6           xxxxxx           xxxxxx
ApproachLOS:         B                C                *                *
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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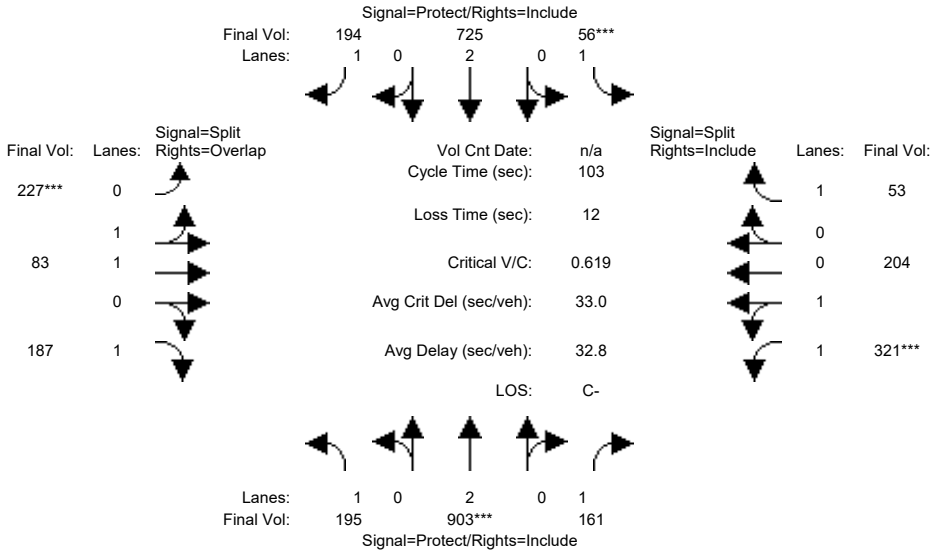
```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0    12    15    1    18     5  481     3    15  536    16
ApproachDel:      14.0             18.6           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1105]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=34]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1105]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0    12    15    1    18     5  481     3    15  536    16
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1056
Minor Approach Volume:           34
Minor Approach Volume Threshold: 266
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 85 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 195 | 903 | 161 | 56 | 725 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 903 | 161 | 56 | 725 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 903 | 161 | 56 | 725 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 903 | 161 | 56 | 725 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.23 | 0.77 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2170 | 1379 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.24 | 0.09 | 0.03 | 0.19 | 0.11 | 0.13 | 0.04 | 0.11 | 0.15 | 0.15 | 0.03 |
| Crit Moves: | | **** | | **** | | | **** | | | **** | | |
| Green Time: | 16.9 | 38.7 | 38.7 | 7.0 | 28.9 | 28.9 | 21.1 | 21.1 | 38.0 | 24.1 | 24.1 | 24.1 |
| Volume/Cap: | 0.68 | 0.63 | 0.24 | 0.47 | 0.68 | 0.40 | 0.63 | 0.21 | 0.29 | 0.63 | 0.63 | 0.13 |
| Delay/Veh: | 47.0 | 27.2 | 22.3 | 49.1 | 34.8 | 30.5 | 40.0 | 34.1 | 23.2 | 37.0 | 37.0 | 31.3 |
| 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: | 47.0 | 27.2 | 22.3 | 49.1 | 34.8 | 30.5 | 40.0 | 34.1 | 23.2 | 37.0 | 37.0 | 31.3 |
| LOS by Move: | D | C | C+ | D | C- | C | D | C- | C | D+ | D+ | C |
| HCM2k95thQ: | 12 | 21 | 7 | 5 | 20 | 11 | 15 | 5 | 9 | 16 | 16 | 3 |

Note: Queue reported is the number of cars per lane.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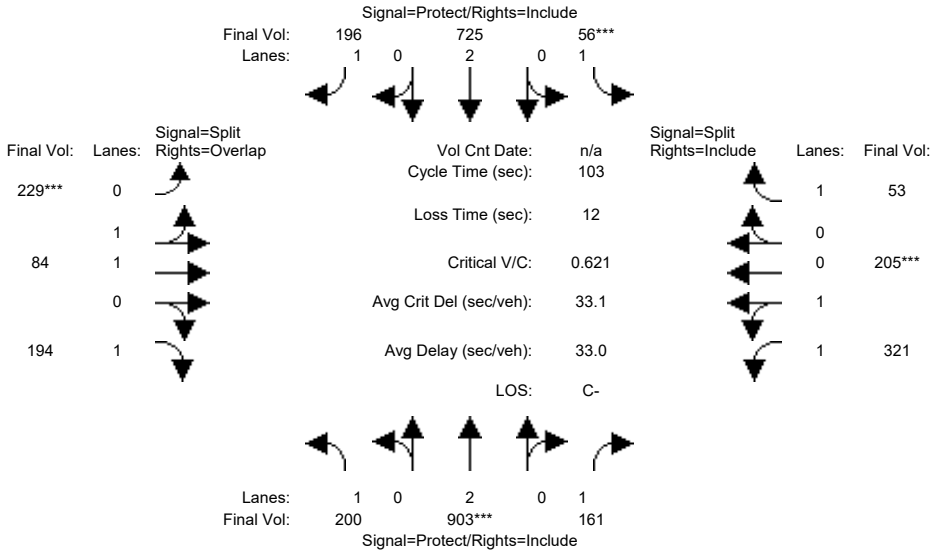
Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PP AM

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| 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: | 195 | 818 | 161 | 56 | 708 | 194 | 227 | 83 | 187 | 321 | 204 | 53 |
| Added Vol: | 5 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 7 | 0 | 1 | 0 |
| PasserByVol: | 0 | 85 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 200 | 903 | 161 | 56 | 725 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| 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: | 200 | 903 | 161 | 56 | 725 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 200 | 903 | 161 | 56 | 725 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| 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: | 200 | 903 | 161 | 56 | 725 | 196 | 229 | 84 | 194 | 321 | 205 | 53 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.23 | 0.77 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2166 | 1383 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.24 | 0.09 | 0.03 | 0.19 | 0.11 | 0.13 | 0.04 | 0.11 | 0.15 | 0.15 | 0.03 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 17.1 | 38.6 | 38.6 | 7.0 | 28.5 | 28.5 | 21.3 | 21.3 | 38.4 | 24.1 | 24.1 | 24.1 |
| Volume/Cap: | 0.69 | 0.63 | 0.25 | 0.47 | 0.69 | 0.40 | 0.63 | 0.21 | 0.30 | 0.63 | 0.63 | 0.13 |
| Delay/Veh: | 47.3 | 27.3 | 22.3 | 49.1 | 35.2 | 30.9 | 40.0 | 34.0 | 23.1 | 37.1 | 37.1 | 31.3 |
| 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: | 47.3 | 27.3 | 22.3 | 49.1 | 35.2 | 30.9 | 40.0 | 34.0 | 23.1 | 37.1 | 37.1 | 31.3 |
| LOS by Move: | D | C | C+ | D | D+ | C | D | C- | C | D+ | D+ | C |
| HCM2k95thQ: | 13 | 21 | 7 | 5 | 21 | 11 | 15 | 5 | 9 | 17 | 17 | 3 |

Note: Queue reported is the number of cars per lane.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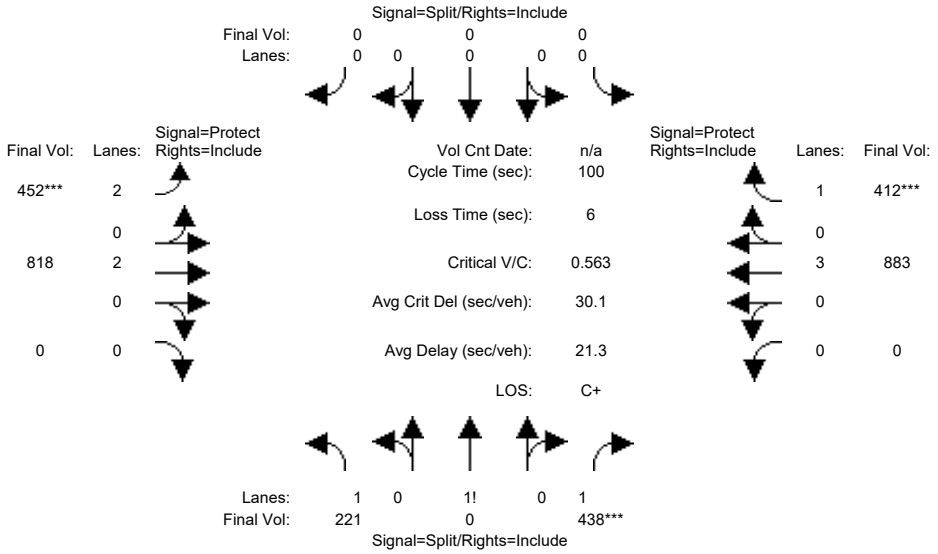
Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 17 | 0 |
| Initial Fut: | 221 | 0 | 438 | 0 | 0 | 0 | 452 | 818 | 0 | 0 | 883 | 412 |
| 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: | 221 | 0 | 438 | 0 | 0 | 0 | 452 | 818 | 0 | 0 | 883 | 412 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 221 | 0 | 438 | 0 | 0 | 0 | 452 | 818 | 0 | 0 | 883 | 412 |
| 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: | 221 | 0 | 438 | 0 | 0 | 0 | 452 | 818 | 0 | 0 | 883 | 412 |
| 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 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.34 | 0.00 | 1.66 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2337 | 0 | 2913 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 0.14 | 0.22 | 0.00 | 0.00 | 0.15 | 0.24 |
| Crit Moves: | | | **** | | | | **** | | | | | **** |
| Green Time: | 26.7 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 | 25.5 | 67.3 | 0.0 | 0.0 | 41.8 | 41.8 |
| Volume/Cap: | 0.35 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.56 | 0.32 | 0.00 | 0.00 | 0.37 | 0.56 |
| Delay/Veh: | 29.8 | 0.0 | 32.2 | 0.0 | 0.0 | 0.0 | 33.3 | 6.9 | 0.0 | 0.0 | 20.1 | 23.2 |
| 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: | 29.8 | 0.0 | 32.2 | 0.0 | 0.0 | 0.0 | 33.3 | 6.9 | 0.0 | 0.0 | 20.1 | 23.2 |
| LOS by Move: | C | A | C- | A | A | A | C- | A | A | A | C+ | C |
| HCM2k95thQ: | 9 | 0 | 15 | 0 | 0 | 0 | 14 | 10 | 0 | 0 | 11 | 19 |

Note: Queue reported is the number of cars per lane.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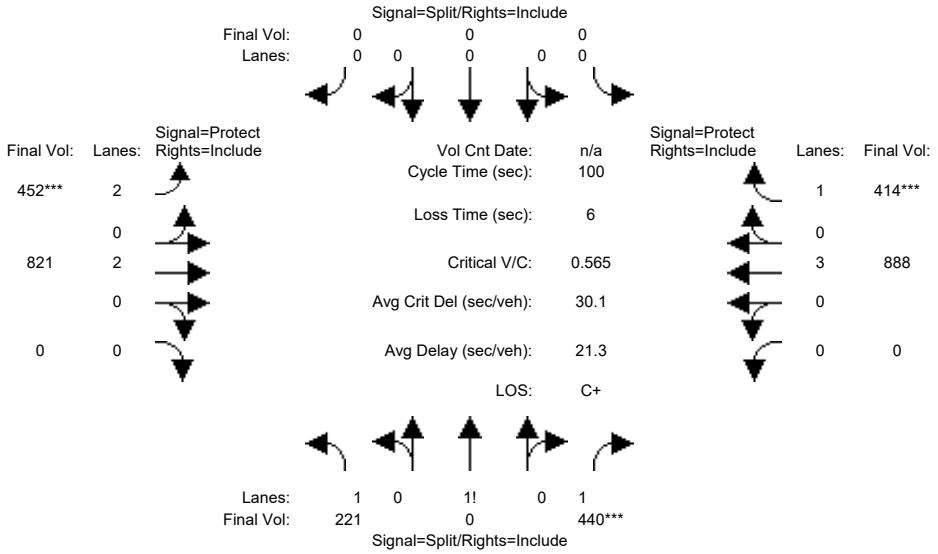
Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PP AM

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| 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: | 221 | 0 | 369 | 0 | 0 | 0 | 452 | 802 | 0 | 0 | 866 | 412 |
| Added Vol: | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 | 2 |
| PasserByVol: | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 17 | 0 |
| Initial Fut: | 221 | 0 | 440 | 0 | 0 | 0 | 452 | 821 | 0 | 0 | 888 | 414 |
| 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: | 221 | 0 | 440 | 0 | 0 | 0 | 452 | 821 | 0 | 0 | 888 | 414 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 221 | 0 | 440 | 0 | 0 | 0 | 452 | 821 | 0 | 0 | 888 | 414 |
| 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: | 221 | 0 | 440 | 0 | 0 | 0 | 452 | 821 | 0 | 0 | 888 | 414 |
| 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 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.33 | 0.00 | 1.67 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2335 | 0 | 2915 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 0.14 | 0.22 | 0.00 | 0.00 | 0.16 | 0.24 |
| Crit Moves: | | | **** | | | | **** | | | | | **** |
| Green Time: | 26.7 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 | 25.4 | 67.3 | 0.0 | 0.0 | 41.9 | 41.9 |
| Volume/Cap: | 0.35 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.56 | 0.32 | 0.00 | 0.00 | 0.37 | 0.56 |
| Delay/Veh: | 29.8 | 0.0 | 32.3 | 0.0 | 0.0 | 0.0 | 33.4 | 6.9 | 0.0 | 0.0 | 20.1 | 23.2 |
| 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: | 29.8 | 0.0 | 32.3 | 0.0 | 0.0 | 0.0 | 33.4 | 6.9 | 0.0 | 0.0 | 20.1 | 23.2 |
| LOS by Move: | C | A | C- | A | A | A | C- | A | A | A | C+ | C |
| HCM2k95thQ: | 9 | 0 | 15 | 0 | 0 | 0 | 14 | 10 | 0 | 0 | 11 | 19 |

Note: Queue reported is the number of cars per lane.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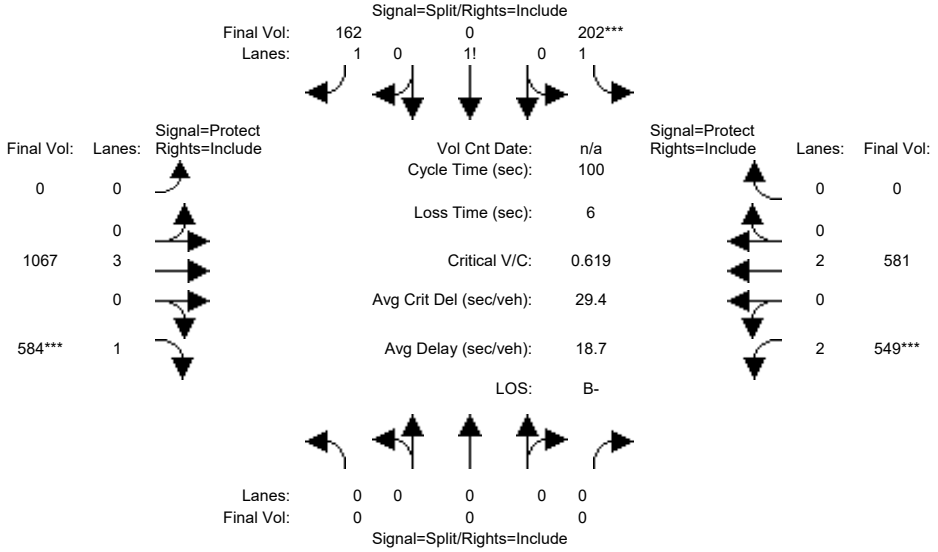
Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 11 | 6 | 0 |
| Initial Fut: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1067 | 584 | 549 | 581 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1067 | 584 | 549 | 581 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1067 | 584 | 549 | 581 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1067 | 584 | 549 | 581 | 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 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 1.45 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2721 | 0 | 2529 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.06 | 0.00 | 0.19 | 0.33 | 0.17 | 0.15 | 0.00 |
| Crit Moves: | | | | **** | | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 12.0 | 0.0 | 12.0 | 0.0 | 53.9 | 53.9 | 28.1 | 82.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.53 | 0.00 | 0.35 | 0.62 | 0.62 | 0.19 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 43.9 | 0.0 | 42.2 | 0.0 | 13.2 | 17.2 | 32.6 | 1.9 | 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: | 0.0 | 0.0 | 0.0 | 43.9 | 0.0 | 42.2 | 0.0 | 13.2 | 17.2 | 32.6 | 1.9 | 0.0 |
| LOS by Move: | A | A | A | D | A | D | A | B | B | C- | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 10 | 0 | 8 | 0 | 12 | 24 | 16 | 4 | 0 |

Note: Queue reported is the number of cars per lane.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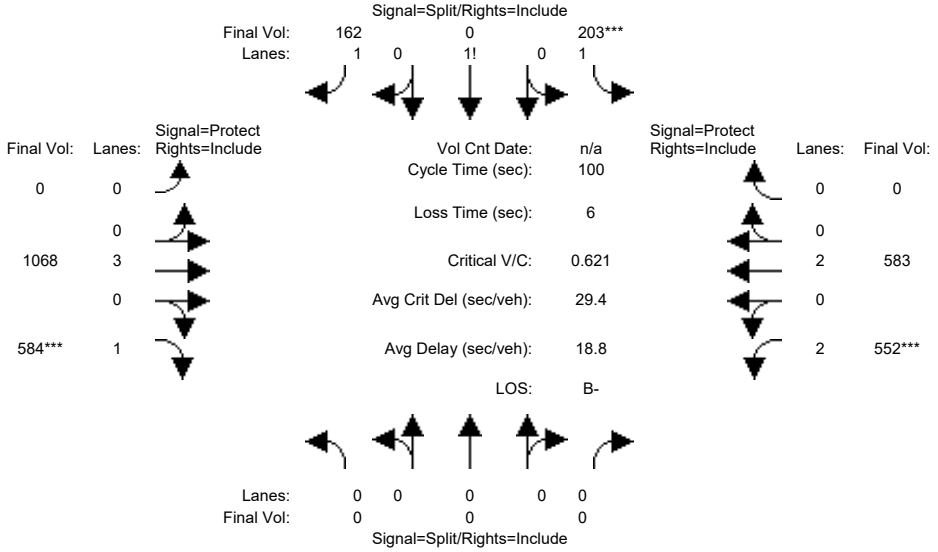
Palm Villas TIA
1025-446_Phase 16
Background PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PP AM

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 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: | 0 | 0 | 0 | 202 | 0 | 162 | 0 | 1051 | 584 | 538 | 575 | 0 |
| Added Vol: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 11 | 6 | 0 |
| Initial Fut: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1068 | 584 | 552 | 583 | 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: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1068 | 584 | 552 | 583 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1068 | 584 | 552 | 583 | 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: | 0 | 0 | 0 | 203 | 0 | 162 | 0 | 1068 | 584 | 552 | 583 | 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 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.56 | 0.00 | 1.44 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2723 | 0 | 2527 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.06 | 0.00 | 0.19 | 0.33 | 0.18 | 0.15 | 0.00 |
| Crit Moves: | | | | **** | | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 12.0 | 0.0 | 12.0 | 0.0 | 53.8 | 53.8 | 28.2 | 82.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.53 | 0.00 | 0.35 | 0.62 | 0.62 | 0.19 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 43.9 | 0.0 | 42.2 | 0.0 | 13.2 | 17.3 | 32.6 | 1.9 | 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: | 0.0 | 0.0 | 0.0 | 43.9 | 0.0 | 42.2 | 0.0 | 13.2 | 17.3 | 32.6 | 1.9 | 0.0 |
| LOS by Move: | A | A | A | D | A | D | A | B | B | C- | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 10 | 0 | 8 | 0 | 12 | 25 | 16 | 4 | 0 |

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

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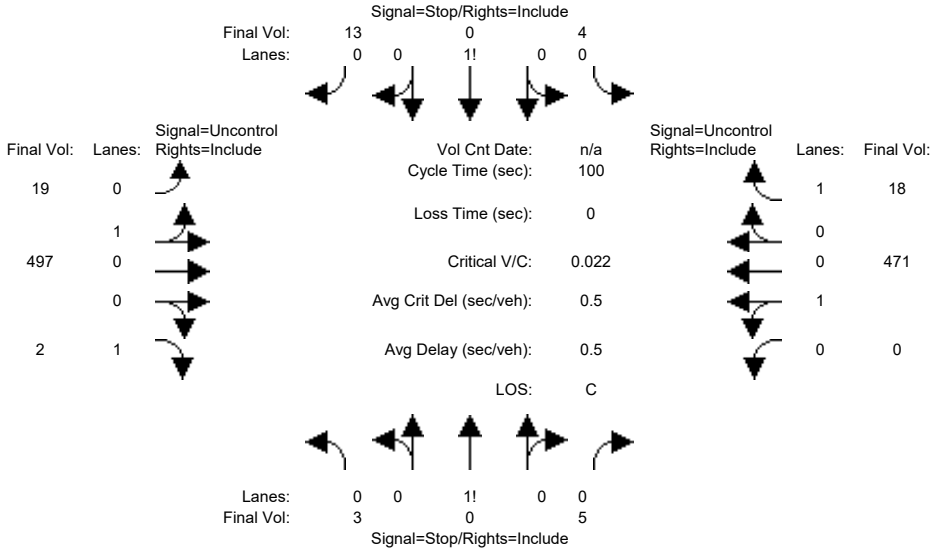
Palm Villas TIA
1025-446_Phase 16
Background PP PM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3    0     5     4    0    13    19  497     2     0  471    18
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:    3    0     5     4    0    13    19  497     2     0  471    18
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:    3    0     5     4    0    13    19  497     2     0  471    18
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:     3    0     5     4    0    13    19  497     2     0  471    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    3    0     5     4    0    13    19  497     2     0  471    18
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1022 1024   497  1010 1008   471   489 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  216  237   577   220  242   597  1085 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    209  233   577   216  238   597  1085 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.01 0.00  0.01  0.02 0.00  0.02  0.02 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.4 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  347 xxxxx  xxxx  422 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx  0.1 xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 15.6 xxxxx xxxxx 13.9 xxxxx   8.4 xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    C     *     *    B     *     A    *     *     A    *     *
ApproachDel:      15.6             13.9           xxxxxx           xxxxxx
ApproachLOS:         C                B                *                *
Note: Queue reported is the number of cars per lane.
                    Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0     5     4    0    13    19  497     2     0  471    18
ApproachDel:      15.6             13.9           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=8]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1032]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1032]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0     5     4    0    13    19  497     2     0  471    18
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1007
Minor Approach Volume:           17
Minor Approach Volume Threshold: 282
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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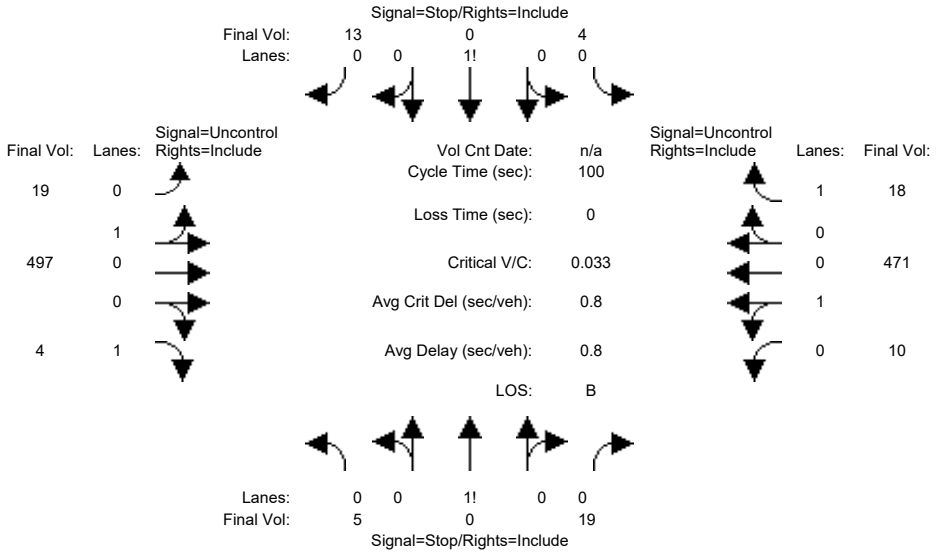
Palm Villas TIA
1025-446_Phase 16
Background PP PM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PP PM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:        Saratoga Creek Drive                    Cox Avenue
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3    0     5     4    0    13    19  497     2     0  471    18
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:    3    0     5     4    0    13    19  497     2     0  471    18
Added Vol:      2    0    14     0    0     0     0    0     2    10    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    5    0    19     4    0    13    19  497     4    10  471    18
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:     5    0    19     4    0    13    19  497     4    10  471    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5    0    19     4    0    13    19  497     4    10  471    18
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1042 1044   497  1038 1030   471   489 xxxx xxxxx   501 xxxx xxxxx
Potent Cap.:  210  231   577   211  235   597  1085 xxxx xxxxx  1074 xxxx xxxxx
Move Cap.:    201  225   577   200  229   597  1085 xxxx xxxxx  1074 xxxx xxxxx
Volume/Cap:  0.02 0.00  0.03  0.02 0.00  0.02  0.02 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.4 xxxx xxxxx   8.4 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  415 xxxxx  xxxx  407 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx  0.1 xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 14.2 xxxxx xxxxx 14.2 xxxxx   8.4 xxxx xxxxx   8.4 xxxx xxxxx
Shared LOS:     *    B     *     *    B     *     A    *     *     A    *     *
ApproachDel:      14.2             14.2           xxxxxx           xxxxxx
ApproachLOS:         B                B                *                *
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    5    0    19     4    0    13    19  497     4    10  471    18
ApproachDel:      14.2             14.2           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=24]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1060]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=17]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1060]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    5    0    19     4    0    13    19  497     4    10  471    18
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1019
Minor Approach Volume:           24
Minor Approach Volume Threshold: 278
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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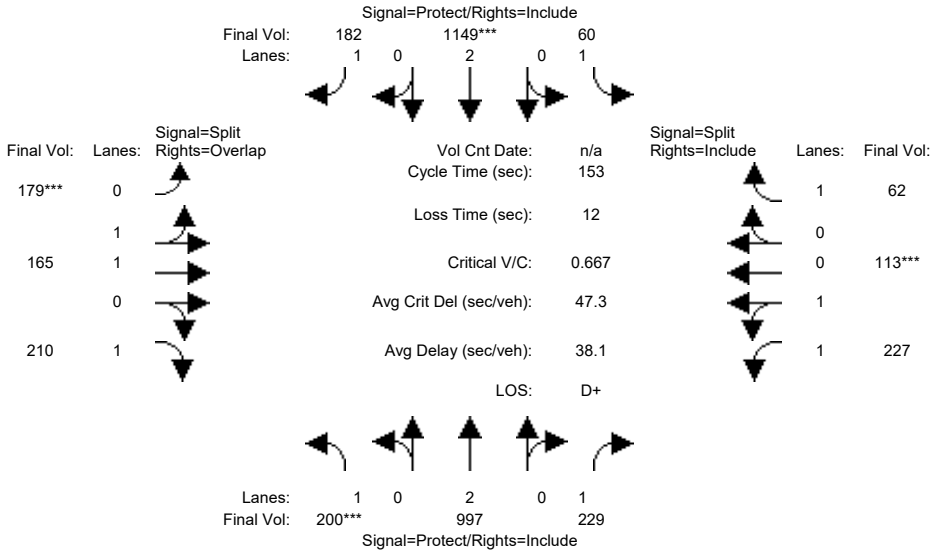
Palm Villas TIA
1025-446_Phase 16
Background PP PM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 23 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 200 | 997 | 229 | 60 | 1149 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 997 | 229 | 60 | 1149 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 200 | 997 | 229 | 60 | 1149 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 997 | 229 | 60 | 1149 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.34 | 0.66 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2370 | 1180 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.26 | 0.13 | 0.03 | 0.30 | 0.10 | 0.10 | 0.09 | 0.12 | 0.10 | 0.10 | 0.04 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 26.2 | 81.4 | 81.4 | 14.2 | 69.4 | 69.4 | 23.5 | 23.5 | 49.7 | 22.0 | 22.0 | 22.0 |
| Volume/Cap: | 0.67 | 0.49 | 0.25 | 0.37 | 0.67 | 0.23 | 0.67 | 0.57 | 0.37 | 0.67 | 0.67 | 0.25 |
| Delay/Veh: | 65.0 | 22.9 | 19.4 | 66.6 | 33.8 | 25.7 | 64.4 | 61.3 | 40.1 | 65.4 | 65.4 | 58.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 65.0 | 22.9 | 19.4 | 66.6 | 33.8 | 25.7 | 64.4 | 61.3 | 40.1 | 65.4 | 65.4 | 58.7 |
| LOS by Move: | E | C+ | B- | E | C- | C | E | E | D | E | E | E+ |
| HCM2k95thQ: | 17 | 25 | 11 | 6 | 35 | 11 | 18 | 15 | 15 | 17 | 17 | 6 |

Note: Queue reported is the number of cars per lane.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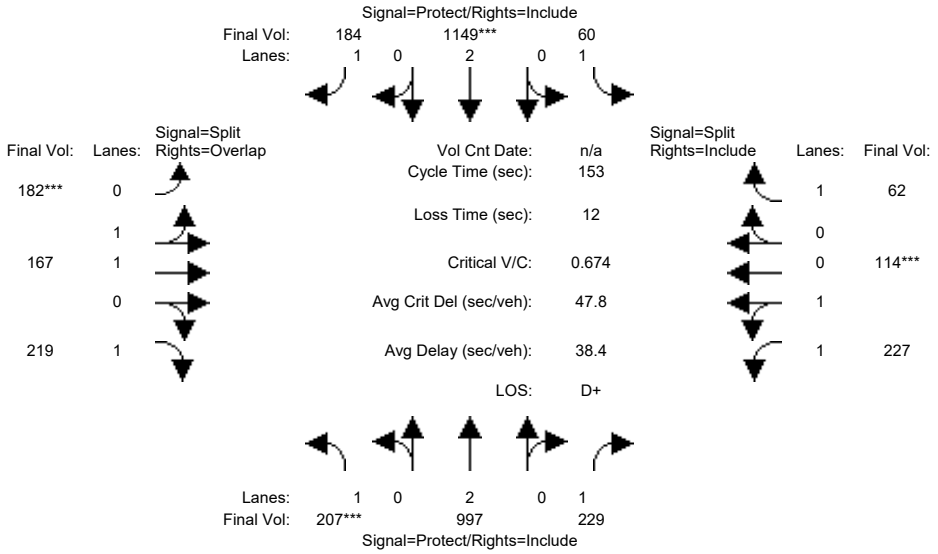
Palm Villas TIA
1025-446_Phase 16
Background PP PM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| 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: | 200 | 974 | 229 | 60 | 1062 | 182 | 179 | 165 | 210 | 227 | 113 | 62 |
| Added Vol: | 7 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 9 | 0 | 1 | 0 |
| PasserByVol: | 0 | 23 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 207 | 997 | 229 | 60 | 1149 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| 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: | 207 | 997 | 229 | 60 | 1149 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 207 | 997 | 229 | 60 | 1149 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| 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: | 207 | 997 | 229 | 60 | 1149 | 184 | 182 | 167 | 219 | 227 | 114 | 62 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.34 | 0.66 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2363 | 1187 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.26 | 0.13 | 0.03 | 0.30 | 0.11 | 0.10 | 0.09 | 0.13 | 0.10 | 0.10 | 0.04 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 26.9 | 81.4 | 81.4 | 14.2 | 68.7 | 68.7 | 23.6 | 23.6 | 50.5 | 21.8 | 21.8 | 21.8 |
| Volume/Cap: | 0.67 | 0.49 | 0.25 | 0.37 | 0.67 | 0.23 | 0.67 | 0.57 | 0.38 | 0.67 | 0.67 | 0.25 |
| Delay/Veh: | 64.8 | 22.9 | 19.4 | 66.6 | 34.4 | 26.1 | 64.5 | 61.2 | 39.7 | 65.8 | 65.8 | 58.8 |
| 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: | 64.8 | 22.9 | 19.4 | 66.6 | 34.4 | 26.1 | 64.5 | 61.2 | 39.7 | 65.8 | 65.8 | 58.8 |
| LOS by Move: | E | C+ | B- | E | C- | C | E | E | D | E | E | E+ |
| HCM2k95thQ: | 18 | 25 | 11 | 6 | 36 | 11 | 18 | 15 | 16 | 17 | 17 | 6 |

Note: Queue reported is the number of cars per lane.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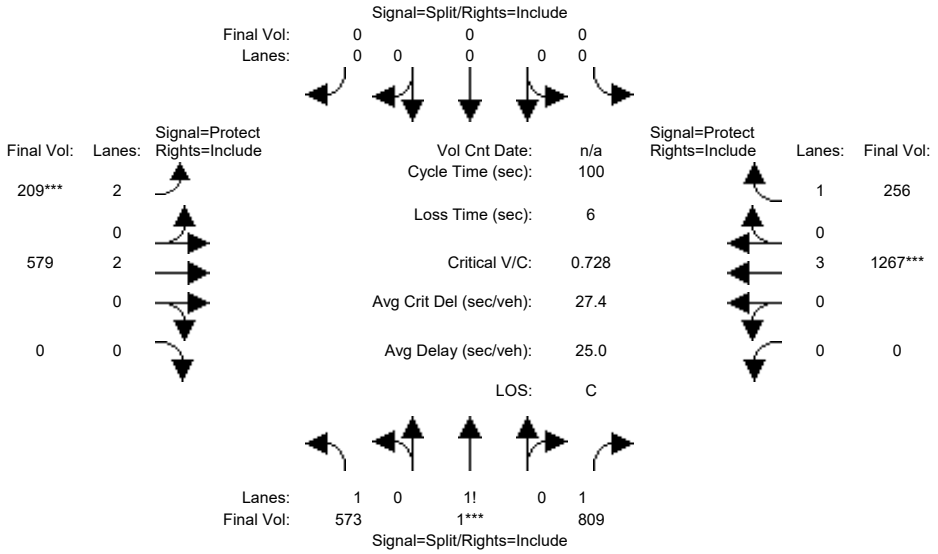
Palm Villas TIA
1025-446_Phase 16
Background PP PM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 87 | 0 |
| Initial Fut: | 573 | 1 | 809 | 0 | 0 | 0 | 209 | 579 | 0 | 0 | 1267 | 256 |
| 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: | 573 | 1 | 809 | 0 | 0 | 0 | 209 | 579 | 0 | 0 | 1267 | 256 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 573 | 1 | 809 | 0 | 0 | 0 | 209 | 579 | 0 | 0 | 1267 | 256 |
| 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: | 573 | 1 | 809 | 0 | 0 | 0 | 209 | 579 | 0 | 0 | 1267 | 256 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.41 | 0.01 | 1.58 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2475 | 3 | 2773 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.40 | 0.29 | 0.00 | 0.00 | 0.00 | 0.07 | 0.15 | 0.00 | 0.00 | 0.22 | 0.15 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 54.3 | 54.3 | 54.3 | 0.0 | 0.0 | 0.0 | 9.1 | 39.7 | 0.0 | 0.0 | 30.5 | 30.5 |
| Volume/Cap: | 0.43 | 0.73 | 0.54 | 0.00 | 0.00 | 0.00 | 0.73 | 0.38 | 0.00 | 0.00 | 0.73 | 0.48 |
| Delay/Veh: | 13.7 | 18.7 | 14.9 | 0.0 | 0.0 | 0.0 | 53.3 | 21.6 | 0.0 | 0.0 | 32.6 | 28.9 |
| 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: | 13.7 | 18.7 | 14.9 | 0.0 | 0.0 | 0.0 | 53.3 | 21.6 | 0.0 | 0.0 | 32.6 | 28.9 |
| LOS by Move: | B | B- | B | A | A | A | D- | C+ | A | A | C- | C |
| HCM2k95thQ: | 15 | 31 | 20 | 0 | 0 | 0 | 8 | 12 | 0 | 0 | 21 | 13 |

Note: Queue reported is the number of cars per lane.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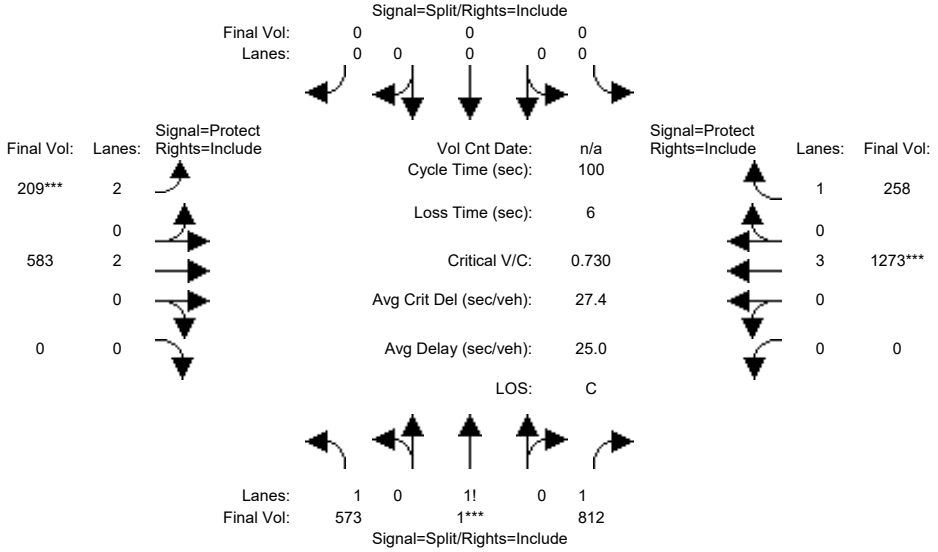
Palm Villas TIA
1025-446_Phase 16
Background PP PM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| 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: | 573 | 1 | 797 | 0 | 0 | 0 | 209 | 568 | 0 | 0 | 1180 | 256 |
| Added Vol: | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | 2 |
| PasserByVol: | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 87 | 0 |
| Initial Fut: | 573 | 1 | 812 | 0 | 0 | 0 | 209 | 583 | 0 | 0 | 1273 | 258 |
| 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: | 573 | 1 | 812 | 0 | 0 | 0 | 209 | 583 | 0 | 0 | 1273 | 258 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 573 | 1 | 812 | 0 | 0 | 0 | 209 | 583 | 0 | 0 | 1273 | 258 |
| 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: | 573 | 1 | 812 | 0 | 0 | 0 | 209 | 583 | 0 | 0 | 1273 | 258 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.41 | 0.01 | 1.58 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2473 | 3 | 2775 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.40 | 0.29 | 0.00 | 0.00 | 0.00 | 0.07 | 0.15 | 0.00 | 0.00 | 0.22 | 0.15 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 54.3 | 54.3 | 54.3 | 0.0 | 0.0 | 0.0 | 9.1 | 39.7 | 0.0 | 0.0 | 30.6 | 30.6 |
| Volume/Cap: | 0.43 | 0.73 | 0.54 | 0.00 | 0.00 | 0.00 | 0.73 | 0.39 | 0.00 | 0.00 | 0.73 | 0.48 |
| Delay/Veh: | 13.7 | 18.8 | 15.0 | 0.0 | 0.0 | 0.0 | 53.4 | 21.6 | 0.0 | 0.0 | 32.6 | 28.9 |
| 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: | 13.7 | 18.8 | 15.0 | 0.0 | 0.0 | 0.0 | 53.4 | 21.6 | 0.0 | 0.0 | 32.6 | 28.9 |
| LOS by Move: | B | B- | B | A | A | A | D- | C+ | A | A | C- | C |
| HCM2k95thQ: | 15 | 31 | 20 | 0 | 0 | 0 | 8 | 12 | 0 | 0 | 21 | 13 |

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

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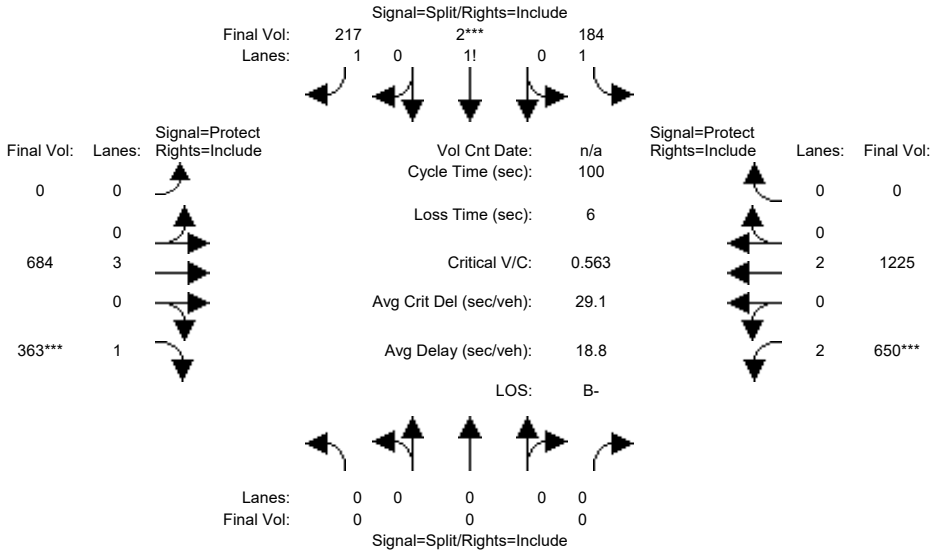
Palm Villas TIA
1025-446_Phase 16
Background PP PM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 65 | 22 | 0 |
| Initial Fut: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 684 | 363 | 650 | 1225 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 684 | 363 | 650 | 1225 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 684 | 363 | 650 | 1225 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 684 | 363 | 650 | 1225 | 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 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.45 | 0.01 | 1.54 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2545 | 17 | 2688 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.12 | 0.08 | 0.00 | 0.12 | 0.21 | 0.21 | 0.32 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 20.5 | 20.5 | 20.5 | 0.0 | 36.8 | 36.8 | 36.6 | 73.5 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.35 | 0.56 | 0.39 | 0.00 | 0.33 | 0.56 | 0.56 | 0.44 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 34.2 | 36.7 | 34.6 | 0.0 | 22.8 | 26.3 | 25.9 | 5.3 | 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 | 34.2 | 36.7 | 34.6 | 0.0 | 22.8 | 26.3 | 25.9 | 5.3 | 0.0 |
| LOS by Move: | A | A | A | C- | D+ | C- | A | C+ | C | C | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 8 | 13 | 9 | 0 | 10 | 18 | 17 | 14 | 0 |

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

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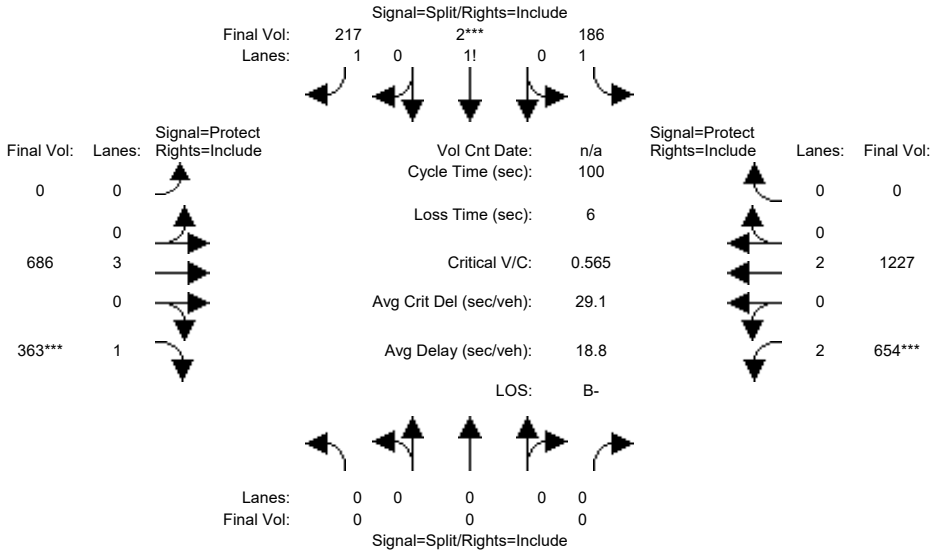
Palm Villas TIA
1025-446_Phase 16
Background PP PM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 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: | 0 | 0 | 0 | 184 | 2 | 217 | 0 | 673 | 363 | 585 | 1203 | 0 |
| Added Vol: | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 4 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 65 | 22 | 0 |
| Initial Fut: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 686 | 363 | 654 | 1227 | 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: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 686 | 363 | 654 | 1227 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 686 | 363 | 654 | 1227 | 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: | 0 | 0 | 0 | 186 | 2 | 217 | 0 | 686 | 363 | 654 | 1227 | 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 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.46 | 0.01 | 1.53 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2550 | 17 | 2683 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.12 | 0.08 | 0.00 | 0.12 | 0.21 | 0.21 | 0.32 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 20.6 | 20.6 | 20.6 | 0.0 | 36.7 | 36.7 | 36.7 | 73.4 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.35 | 0.57 | 0.39 | 0.00 | 0.33 | 0.57 | 0.57 | 0.44 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 34.2 | 36.7 | 34.6 | 0.0 | 22.9 | 26.5 | 25.9 | 5.3 | 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 | 34.2 | 36.7 | 34.6 | 0.0 | 22.9 | 26.5 | 25.9 | 5.3 | 0.0 |
| LOS by Move: | A | A | A | C- | D+ | C- | A | C+ | C | C | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 8 | 13 | 9 | 0 | 10 | 18 | 17 | 14 | 0 |

Note: Queue reported is the number of cars per lane.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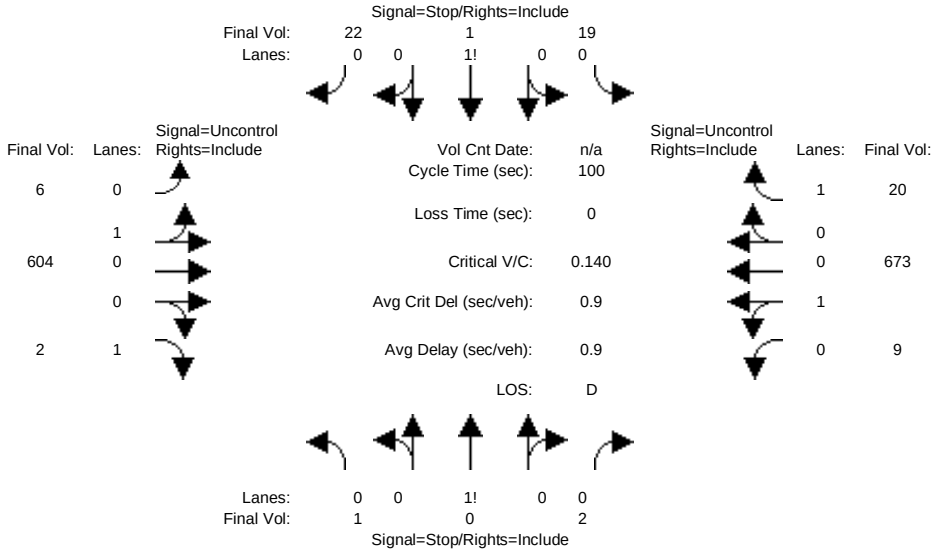
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative AM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1    0     2    19    1    22     6  604     2     9  673    20
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:    1    0     2    19    1    22     6  604     2     9  673    20
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:    1    0     2    19    1    22     6  604     2     9  673    20
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:     1    0     2    19    1    22     6  604     2     9  673    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    1    0     2    19    1    22     6  604     2     9  673    20
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1329 1327   604  1309 1309   673   693 xxxx xxxxx   606 xxxx xxxxx
Potent Cap.:  133  157   502   138  161   459   912 xxxx xxxxx   982 xxxx xxxxx
Move Cap.:    125  154   502   135  158   459   912 xxxx xxxxx   982 xxxx xxxxx
Volume/Cap:  0.01 0.00  0.00  0.14 0.01  0.05  0.01 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx   8.7 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  250 xxxxx  xxxx  216 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.0 xxxxx xxxxx  0.7 xxxxx   0.0 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 19.6 xxxxx xxxxx 25.7 xxxxx   9.0 xxxx xxxxx   8.7 xxxx xxxxx
Shared LOS:     *    C     *     *    D     *     A    *     *     A    *     *
ApproachDel:      19.6             25.7           xxxxxx           xxxxxx
ApproachLOS:         C                D                *                *
Note: Queue reported is the number of cars per lane.
                    Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    1    0     2    19    1    22     6  604     2     9  673    20
ApproachDel:      19.6             25.7           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1359]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=42]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1359]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    1    0     2    19    1    22     6  604     2     9  673    20
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1314
Minor Approach Volume:           42
Minor Approach Volume Threshold: 191
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


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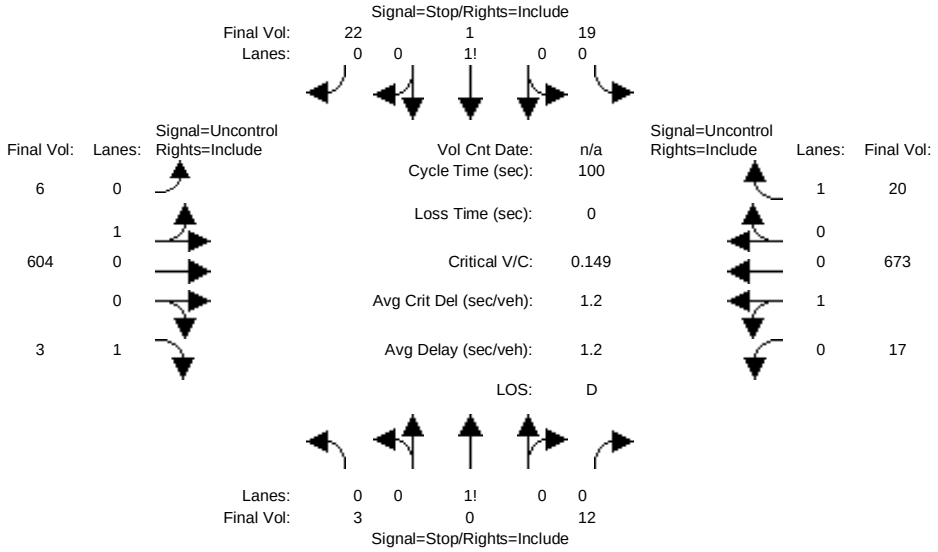
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative PP AM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:        Saratoga Creek Drive                    Cox Avenue
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1    0     2    19    1    22     6  604     2     9  673    20
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:    1    0     2    19    1    22     6  604     2     9  673    20
Added Vol:      2    0    10     0    0     0     0    0     1     8    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    3    0    12    19    1    22     6  604     3    17  673    20
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:     3    0    12    19    1    22     6  604     3    17  673    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    3    0    12    19    1    22     6  604     3    17  673    20
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1345 1343   604  1331 1326   673   693 xxxx xxxxx   607 xxxx xxxxx
Potent Cap.:  130  153   502   133  157   459   912 xxxx xxxxx   981 xxxx xxxxx
Move Cap.:    121  150   502   127  153   459   912 xxxx xxxxx   981 xxxx xxxxx
Volume/Cap:  0.02 0.00  0.02  0.15 0.01  0.05  0.01 xxxx  xxxx  0.02 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx   0.1 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.0 xxxx xxxxx   8.7 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  308 xxxxx  xxxx  206 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.2 xxxxx xxxxx  0.7 xxxxx   0.0 xxxx xxxxx   0.1 xxxx xxxxx
Shrd ConDel:xxxxx 17.3 xxxxx xxxxx 26.9 xxxxx   9.0 xxxx xxxxx   8.7 xxxx xxxxx
Shared LOS:     *    C     *     *    D     *     A    *     *     A    *     *
ApproachDel:      17.3             26.9           xxxxxx           xxxxxx
ApproachLOS:         C                D                *                *
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```

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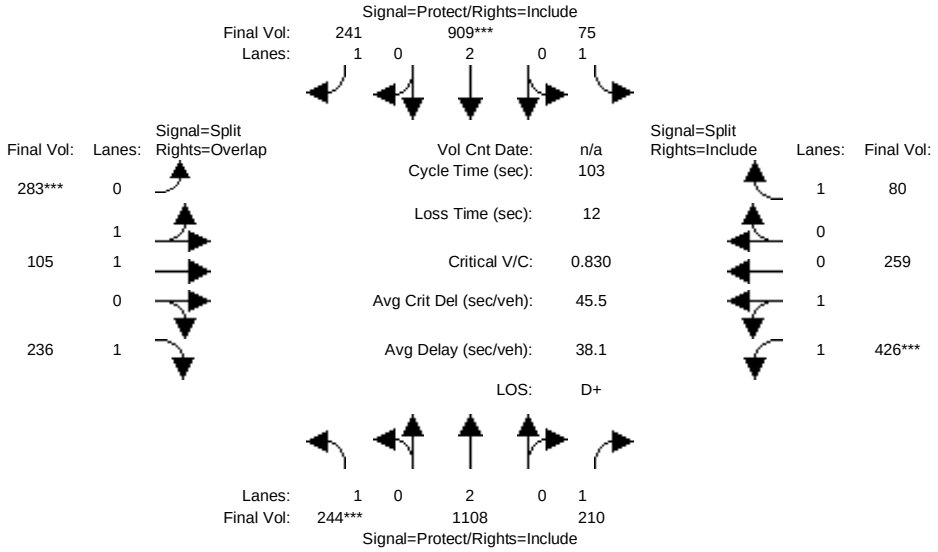
```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0    12    19    1    22     6  604     3    17  673    20
ApproachDel:      17.3             26.9           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=15]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1380]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=42]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1380]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    3    0    12    19    1    22     6  604     3    17  673    20
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1323
Minor Approach Volume:           42
Minor Approach Volume Threshold: 188
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 244 | 1023 | 210 | 75 | 892 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| 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: | 244 | 1023 | 210 | 75 | 892 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 85 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 244 | 1108 | 210 | 75 | 909 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| 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: | 244 | 1108 | 210 | 75 | 909 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 244 | 1108 | 210 | 75 | 909 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| 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: | 244 | 1108 | 210 | 75 | 909 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.25 | 0.75 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2207 | 1342 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.29 | 0.12 | 0.04 | 0.24 | 0.14 | 0.16 | 0.06 | 0.13 | 0.19 | 0.19 | 0.05 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |
| Green Time: | 17.3 | 38.1 | 38.1 | 8.9 | 29.7 | 29.7 | 20.1 | 20.1 | 37.4 | 23.9 | 23.9 | 23.9 |
| Volume/Cap: | 0.83 | 0.79 | 0.32 | 0.50 | 0.83 | 0.48 | 0.83 | 0.28 | 0.37 | 0.83 | 0.83 | 0.20 |
| Delay/Veh: | 59.1 | 31.9 | 23.5 | 47.5 | 39.8 | 31.0 | 51.7 | 35.5 | 24.5 | 44.7 | 44.7 | 32.0 |
| 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: | 59.1 | 31.9 | 23.5 | 47.5 | 39.8 | 31.0 | 51.7 | 35.5 | 24.5 | 44.7 | 44.7 | 32.0 |
| LOS by Move: | E+ | C | C | D | D | C | D- | D+ | C | D | D | C- |
| HCM2k95thQ: | 16 | 28 | 10 | 6 | 28 | 13 | 21 | 6 | 12 | 24 | 24 | 5 |

Note: Queue reported is the number of cars per lane.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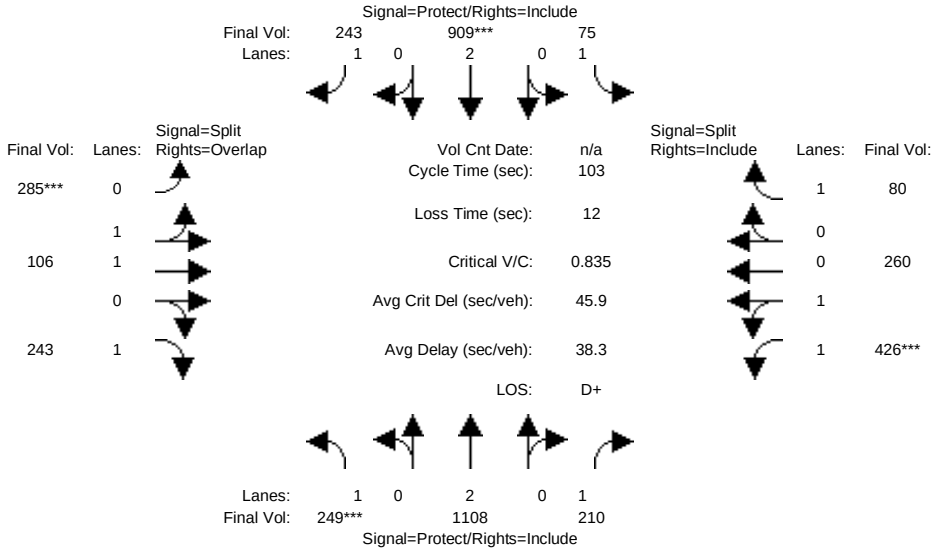
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative PP AM

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 244 | 1023 | 210 | 75 | 892 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| 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: | 244 | 1023 | 210 | 75 | 892 | 241 | 283 | 105 | 236 | 426 | 259 | 80 |
| Added Vol: | 5 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 7 | 0 | 1 | 0 |
| PasserByVol: | 0 | 85 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 249 | 1108 | 210 | 75 | 909 | 243 | 285 | 106 | 243 | 426 | 260 | 80 |
| 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: | 249 | 1108 | 210 | 75 | 909 | 243 | 285 | 106 | 243 | 426 | 260 | 80 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 249 | 1108 | 210 | 75 | 909 | 243 | 285 | 106 | 243 | 426 | 260 | 80 |
| 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: | 249 | 1108 | 210 | 75 | 909 | 243 | 285 | 106 | 243 | 426 | 260 | 80 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.25 | 0.75 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2204 | 1345 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.29 | 0.12 | 0.04 | 0.24 | 0.14 | 0.16 | 0.06 | 0.14 | 0.19 | 0.19 | 0.05 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |
| Green Time: | 17.6 | 38.2 | 38.2 | 8.9 | 29.5 | 29.5 | 20.1 | 20.1 | 37.6 | 23.8 | 23.8 | 23.8 |
| Volume/Cap: | 0.83 | 0.79 | 0.32 | 0.50 | 0.83 | 0.48 | 0.83 | 0.29 | 0.38 | 0.83 | 0.83 | 0.20 |
| Delay/Veh: | 59.4 | 31.8 | 23.5 | 47.5 | 40.2 | 31.2 | 52.1 | 35.5 | 24.5 | 45.1 | 45.1 | 32.1 |
| 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: | 59.4 | 31.8 | 23.5 | 47.5 | 40.2 | 31.2 | 52.1 | 35.5 | 24.5 | 45.1 | 45.1 | 32.1 |
| LOS by Move: | E+ | C | C | D | D | C | D- | D+ | C | D | D | C- |
| HCM2k95thQ: | 17 | 28 | 10 | 6 | 28 | 14 | 22 | 6 | 12 | 24 | 24 | 5 |

Note: Queue reported is the number of cars per lane.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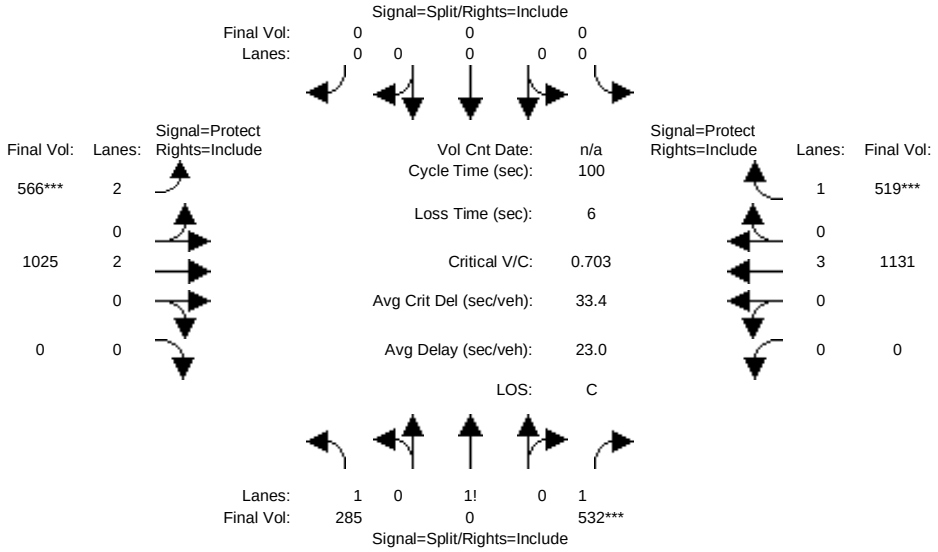
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 285 | 0 | 463 | 0 | 0 | 0 | 566 | 1009 | 0 | 0 | 1114 | 519 |
| 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: | 285 | 0 | 463 | 0 | 0 | 0 | 566 | 1009 | 0 | 0 | 1114 | 519 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 17 | 0 |
| Initial Fut: | 285 | 0 | 532 | 0 | 0 | 0 | 566 | 1025 | 0 | 0 | 1131 | 519 |
| 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: | 285 | 0 | 532 | 0 | 0 | 0 | 566 | 1025 | 0 | 0 | 1131 | 519 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 285 | 0 | 532 | 0 | 0 | 0 | 566 | 1025 | 0 | 0 | 1131 | 519 |
| 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: | 285 | 0 | 532 | 0 | 0 | 0 | 566 | 1025 | 0 | 0 | 1131 | 519 |
| 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 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.35 | 0.00 | 1.65 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2360 | 0 | 2890 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.18 | 0.27 | 0.00 | 0.00 | 0.20 | 0.30 |
| Crit Moves: | | | **** | | | | **** | | | | | **** |
| Green Time: | 26.2 | 0.0 | 26.2 | 0.0 | 0.0 | 0.0 | 25.6 | 67.8 | 0.0 | 0.0 | 42.2 | 42.2 |
| Volume/Cap: | 0.46 | 0.00 | 0.70 | 0.00 | 0.00 | 0.00 | 0.70 | 0.40 | 0.00 | 0.00 | 0.47 | 0.70 |
| Delay/Veh: | 31.2 | 0.0 | 35.3 | 0.0 | 0.0 | 0.0 | 36.6 | 7.2 | 0.0 | 0.0 | 21.0 | 26.8 |
| 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: | 31.2 | 0.0 | 35.3 | 0.0 | 0.0 | 0.0 | 36.6 | 7.2 | 0.0 | 0.0 | 21.0 | 26.8 |
| LOS by Move: | C | A | D+ | A | A | A | D+ | A | A | A | C+ | C |
| HCM2k95thQ: | 12 | 0 | 20 | 0 | 0 | 0 | 18 | 13 | 0 | 0 | 15 | 24 |

Note: Queue reported is the number of cars per lane.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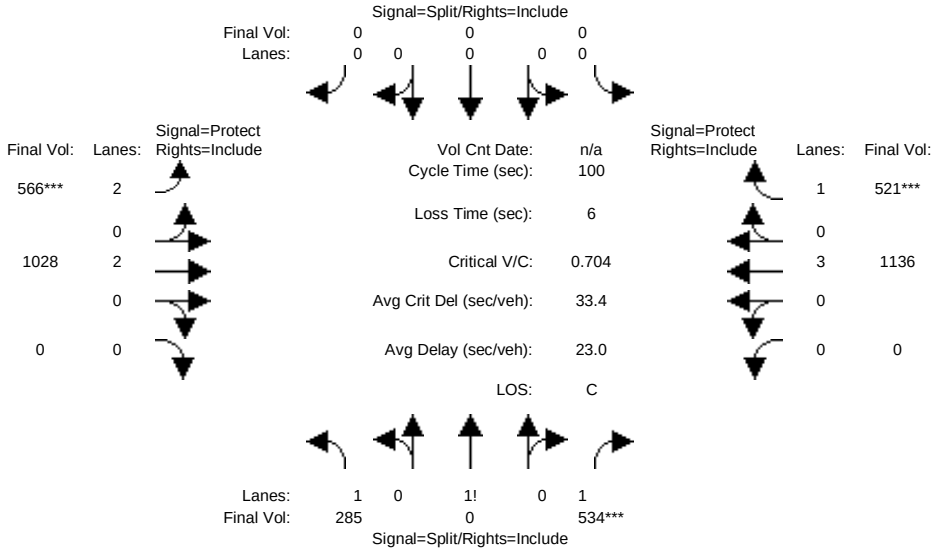
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative PP AM

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 285 | 0 | 463 | 0 | 0 | 0 | 566 | 1009 | 0 | 0 | 1114 | 519 |
| 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: | 285 | 0 | 463 | 0 | 0 | 0 | 566 | 1009 | 0 | 0 | 1114 | 519 |
| Added Vol: | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 | 2 |
| PasserByVol: | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 17 | 0 |
| Initial Fut: | 285 | 0 | 534 | 0 | 0 | 0 | 566 | 1028 | 0 | 0 | 1136 | 521 |
| 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: | 285 | 0 | 534 | 0 | 0 | 0 | 566 | 1028 | 0 | 0 | 1136 | 521 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 285 | 0 | 534 | 0 | 0 | 0 | 566 | 1028 | 0 | 0 | 1136 | 521 |
| 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: | 285 | 0 | 534 | 0 | 0 | 0 | 566 | 1028 | 0 | 0 | 1136 | 521 |
| 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 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.35 | 0.00 | 1.65 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2359 | 0 | 2891 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.18 | 0.27 | 0.00 | 0.00 | 0.20 | 0.30 |
| Crit Moves: | | | **** | | | | **** | | | | | **** |
| Green Time: | 26.2 | 0.0 | 26.2 | 0.0 | 0.0 | 0.0 | 25.5 | 67.8 | 0.0 | 0.0 | 42.3 | 42.3 |
| Volume/Cap: | 0.46 | 0.00 | 0.70 | 0.00 | 0.00 | 0.00 | 0.70 | 0.40 | 0.00 | 0.00 | 0.47 | 0.70 |
| Delay/Veh: | 31.1 | 0.0 | 35.4 | 0.0 | 0.0 | 0.0 | 36.7 | 7.2 | 0.0 | 0.0 | 21.0 | 26.8 |
| 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: | 31.1 | 0.0 | 35.4 | 0.0 | 0.0 | 0.0 | 36.7 | 7.2 | 0.0 | 0.0 | 21.0 | 26.8 |
| LOS by Move: | C | A | D+ | A | A | A | D+ | A | A | A | C+ | C |
| HCM2k95thQ: | 12 | 0 | 20 | 0 | 0 | 0 | 18 | 13 | 0 | 0 | 15 | 24 |

Note: Queue reported is the number of cars per lane.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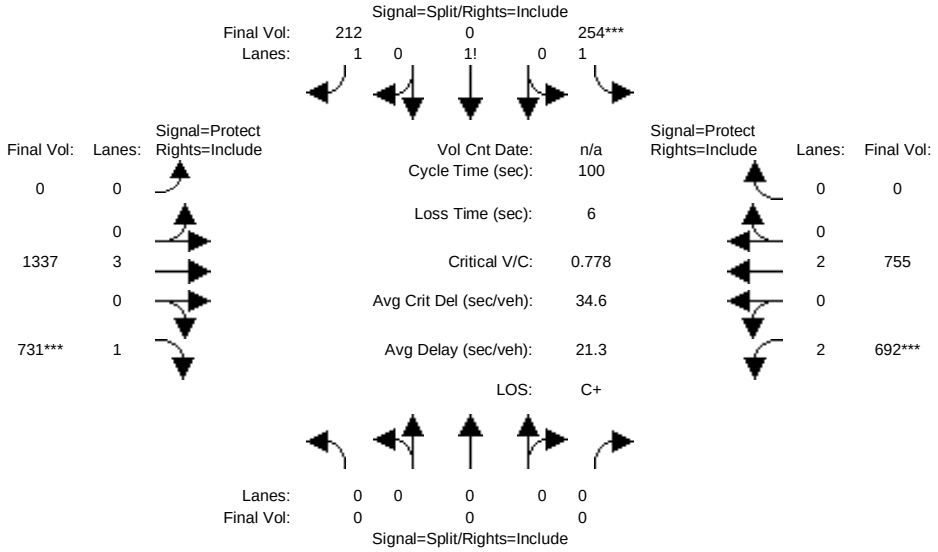
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1321 | 731 | 681 | 749 | 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: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1321 | 731 | 681 | 749 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 11 | 6 | 0 |
| Initial Fut: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1337 | 731 | 692 | 755 | 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: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1337 | 731 | 692 | 755 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1337 | 731 | 692 | 755 | 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: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1337 | 731 | 692 | 755 | 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 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 1.45 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2704 | 0 | 2546 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.08 | 0.00 | 0.23 | 0.42 | 0.22 | 0.20 | 0.00 |
| Crit Moves: | | | | **** | | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 12.1 | 0.0 | 53.7 | 53.7 | 28.2 | 81.9 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.78 | 0.00 | 0.69 | 0.00 | 0.44 | 0.78 | 0.78 | 0.24 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 49.1 | 0.0 | 45.2 | 0.0 | 14.1 | 22.6 | 37.4 | 2.1 | 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 | 49.1 | 0.0 | 45.2 | 0.0 | 14.1 | 22.6 | 37.4 | 2.1 | 0.0 |
| LOS by Move: | A | A | A | D | A | D | A | B | C+ | D+ | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 14 | 0 | 12 | 0 | 16 | 35 | 22 | 5 | 0 |

Note: Queue reported is the number of cars per lane.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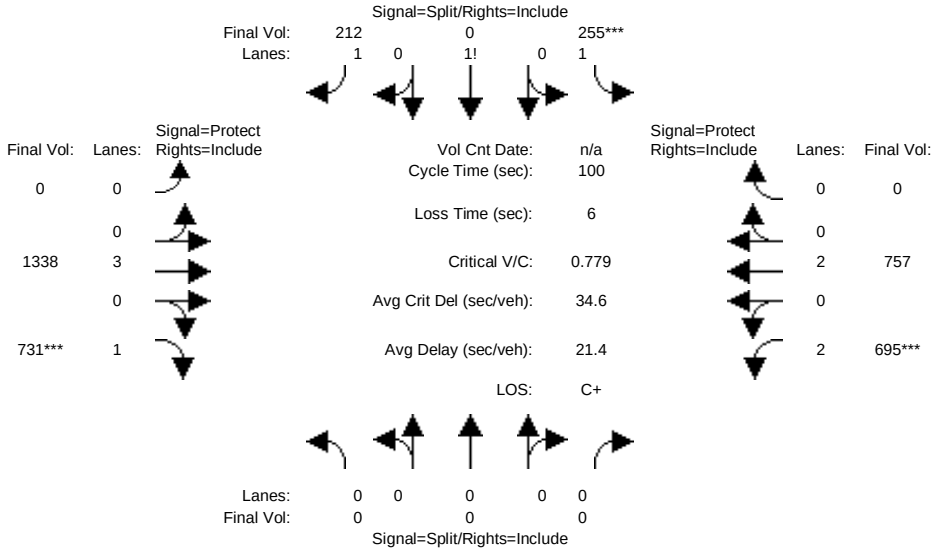
Palm Villas TIA
1025-446 Phase 16
Cumulative PP AM

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative PP AM

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1321 | 731 | 681 | 749 | 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: | 0 | 0 | 0 | 254 | 0 | 212 | 0 | 1321 | 731 | 681 | 749 | 0 |
| Added Vol: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 11 | 6 | 0 |
| Initial Fut: | 0 | 0 | 0 | 255 | 0 | 212 | 0 | 1338 | 731 | 695 | 757 | 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: | 0 | 0 | 0 | 255 | 0 | 212 | 0 | 1338 | 731 | 695 | 757 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 255 | 0 | 212 | 0 | 1338 | 731 | 695 | 757 | 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: | 0 | 0 | 0 | 255 | 0 | 212 | 0 | 1338 | 731 | 695 | 757 | 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 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 1.45 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2706 | 0 | 2544 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.08 | 0.00 | 0.23 | 0.42 | 0.22 | 0.20 | 0.00 |
| Crit Moves: | | | | **** | | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 12.1 | 0.0 | 53.6 | 53.6 | 28.3 | 81.9 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.78 | 0.00 | 0.69 | 0.00 | 0.44 | 0.78 | 0.78 | 0.24 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 49.1 | 0.0 | 45.2 | 0.0 | 14.2 | 22.7 | 37.4 | 2.1 | 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 | 49.1 | 0.0 | 45.2 | 0.0 | 14.2 | 22.7 | 37.4 | 2.1 | 0.0 |
| LOS by Move: | A | A | A | D | A | D | A | B | C+ | D+ | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 14 | 0 | 12 | 0 | 16 | 35 | 22 | 5 | 0 |

Note: Queue reported is the number of cars per lane.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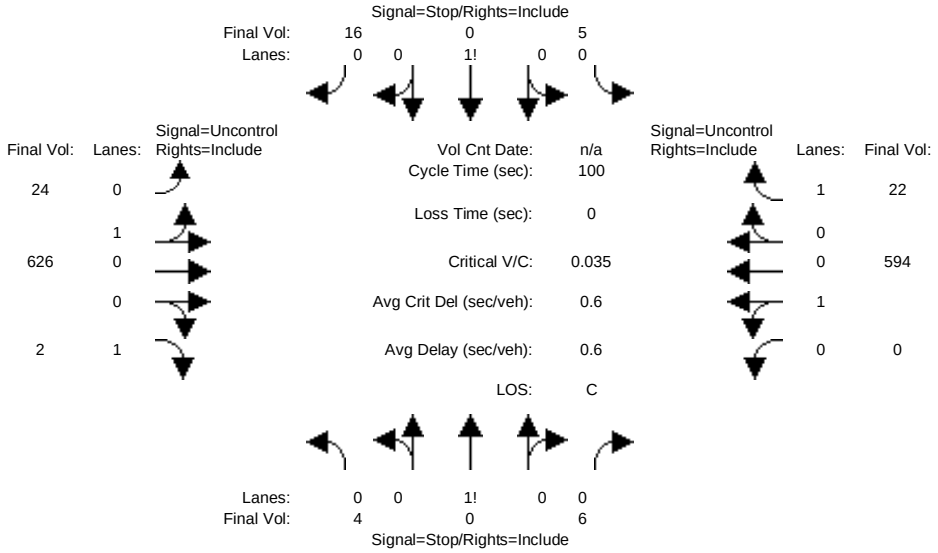
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative PM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:       Saratoga Creek Drive                    Cox Avenue
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4    0     6     5    0    16    24  626     2     0  594    22
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    0     6     5    0    16    24  626     2     0  594    22
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    0     6     5    0    16    24  626     2     0  594    22
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    0     6     5    0    16    24  626     2     0  594    22
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    4    0     6     5    0    16    24  626     2     0  594    22
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1287 1290   626  1272 1270   594   616 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  142  165   488   146  170   509   974 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    135  161   488   141  165   509   974 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.03 0.00  0.01  0.04 0.00  0.03  0.02 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  239 xxxxx  xxxx  314 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.1 xxxxx xxxxx  0.2 xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 20.7 xxxxx xxxxx 17.3 xxxxx   8.8 xxxx xxxxx   7.2 xxxx xxxxx
Shared LOS:     *    C     *     *    C     *     A    *     *     A    *     *
ApproachDel:      20.7             17.3           xxxxxx           xxxxxx
ApproachLOS:         C                C               *                *
Note: Queue reported is the number of cars per lane.
                    Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    4    0     6     5    0    16    24  626     2     0  594    22
ApproachDel:      20.7             17.3           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=10]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1299]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1299]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    4    0     6     5    0    16    24  626     2     0  594    22
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1268
Minor Approach Volume:           21
Minor Approach Volume Threshold: 203
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


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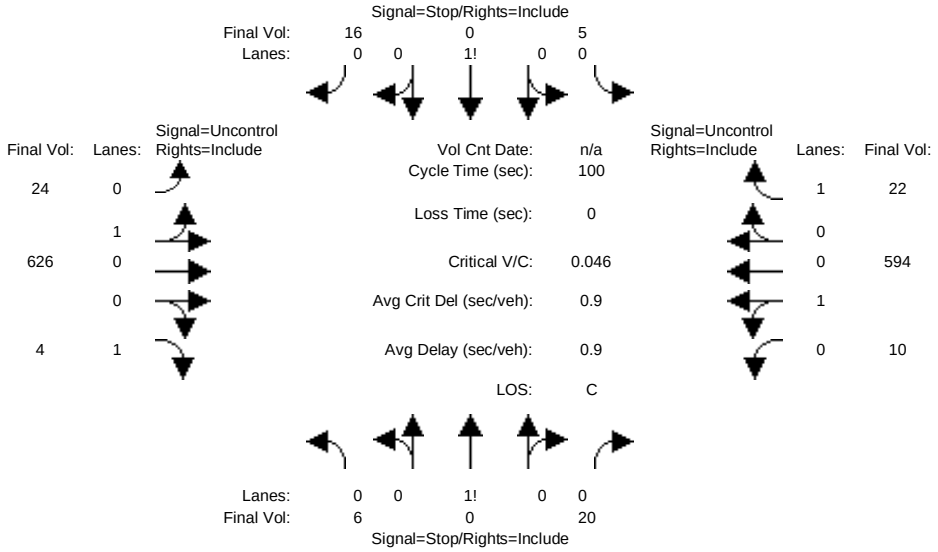
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Cumulative PP PM

## Intersection #1: Cox Avenue / Saratoga Creek Drive




```
Street Name:        Saratoga Creek Drive                    Cox Avenue
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4    0     6     5    0    16    24  626     2     0  594    22
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    0     6     5    0    16    24  626     2     0  594    22
Added Vol:      2    0    14     0    0     0     0    0     2    10    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    6    0    20     5    0    16    24  626     4    10  594    22
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:     6    0    20     5    0    16    24  626     4    10  594    22
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    6    0    20     5    0    16    24  626     4    10  594    22
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2   7.1  6.5   6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3   3.5  4.0   3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1307 1310   626  1300 1292   594   616 xxxx xxxxx   630 xxxx xxxxx
Potent Cap.:  138  160   488   140  165   509   974 xxxx xxxxx   962 xxxx xxxxx
Move Cap.:    130  155   488   130  159   509   974 xxxx xxxxx   962 xxxx xxxxx
Volume/Cap:  0.05 0.00  0.04  0.04 0.00  0.03  0.02 xxxx  xxxx  0.01 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.8 xxxx xxxxx   8.8 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx  298 xxxxx  xxxx  301 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx  0.3 xxxxx xxxxx  0.2 xxxxx   0.1 xxxx xxxxx   0.0 xxxx xxxxx
Shrd ConDel:xxxxx 18.2 xxxxx xxxxx 17.9 xxxxx   8.8 xxxx xxxxx   8.8 xxxx xxxxx
Shared LOS:     *    C     *     *    C     *     A    *     *     A    *     *
ApproachDel:      18.2             17.9           xxxxxx           xxxxxx
ApproachLOS:         C                C                *                *
Note: Queue reported is the number of cars per lane.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
*******************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
```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```
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    6    0    20     5    0    16    24  626     4    10  594    22
ApproachDel:      18.2             17.9           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1327]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1327]
   SUCCEED - Total volume greater than or equal to 800 for intersection
             with four or more approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #1 Cox Avenue / Saratoga Creek Drive
********************************************************************************
Future Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1    0  1  0  0  1
Initial Vol:    6    0    20     5    0    16    24  626     4    10  594    22
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1280
Minor Approach Volume:           26
Minor Approach Volume Threshold: 200
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```


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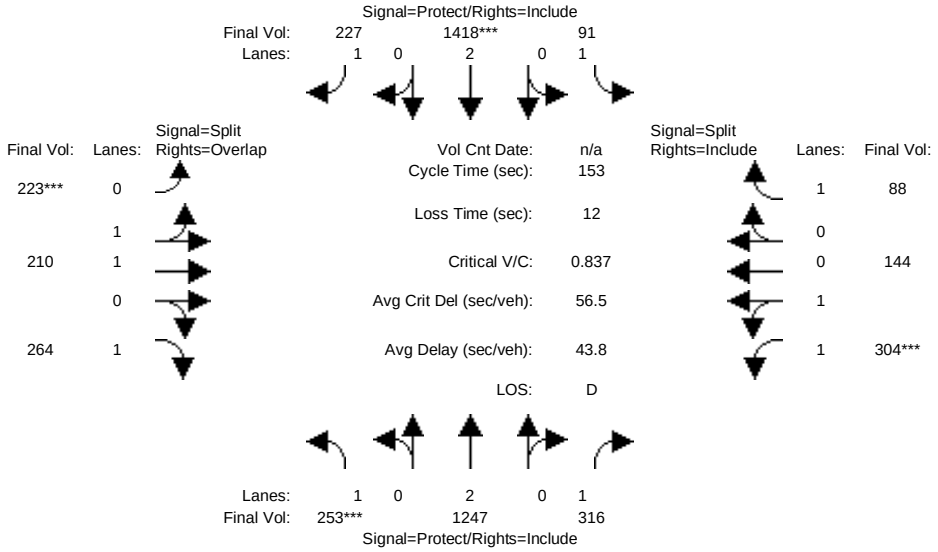
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 253 | 1224 | 316 | 91 | 1331 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| 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: | 253 | 1224 | 316 | 91 | 1331 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 23 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 253 | 1247 | 316 | 91 | 1418 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| 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: | 253 | 1247 | 316 | 91 | 1418 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 253 | 1247 | 316 | 91 | 1418 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| 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: | 253 | 1247 | 316 | 91 | 1418 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.37 | 0.63 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2409 | 1141 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.33 | 0.18 | 0.05 | 0.37 | 0.13 | 0.13 | 0.11 | 0.15 | 0.13 | 0.13 | 0.05 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |
| Green Time: | 26.4 | 81.7 | 81.7 | 12.9 | 68.2 | 68.2 | 23.3 | 23.3 | 49.7 | 23.1 | 23.1 | 23.1 |
| Volume/Cap: | 0.84 | 0.61 | 0.34 | 0.61 | 0.84 | 0.29 | 0.84 | 0.73 | 0.46 | 0.84 | 0.84 | 0.33 |
| Delay/Veh: | 79.3 | 25.3 | 20.5 | 75.1 | 41.3 | 27.2 | 74.4 | 66.3 | 41.7 | 74.2 | 74.2 | 58.8 |
| 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: | 79.3 | 25.3 | 20.5 | 75.1 | 41.3 | 27.2 | 74.4 | 66.3 | 41.7 | 74.2 | 74.2 | 58.8 |
| LOS by Move: | E- | C | C+ | E- | D | C | E | E | D | E | E | E+ |
| HCM2k95thQ: | 22 | 32 | 16 | 11 | 50 | 13 | 24 | 20 | 19 | 24 | 24 | 8 |

Note: Queue reported is the number of cars per lane.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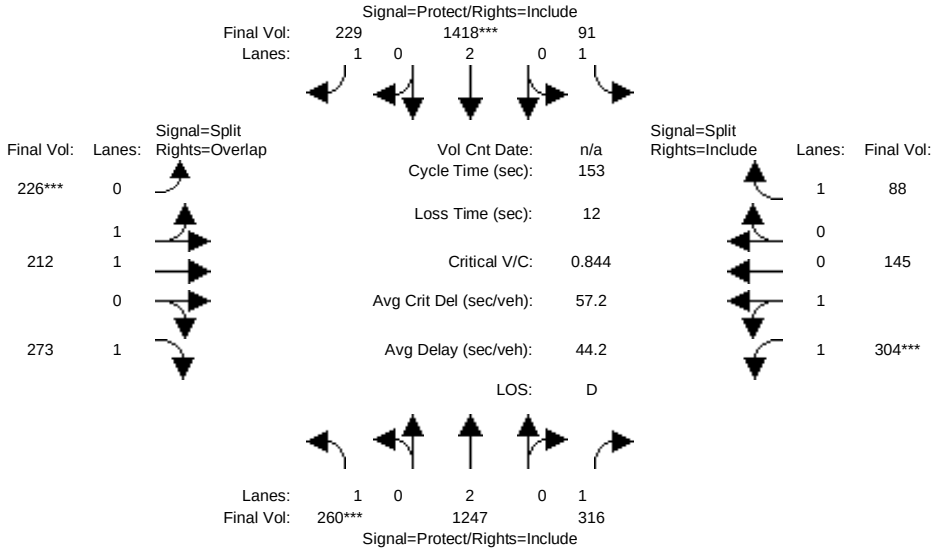
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

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

## Intersection #2: Saratoga Avenue / Cox Avenue




| Street Name: | Saratoga Avenue | | | | | | Cox Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 253 | 1224 | 316 | 91 | 1331 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| 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: | 253 | 1224 | 316 | 91 | 1331 | 227 | 223 | 210 | 264 | 304 | 144 | 88 |
| Added Vol: | 7 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 9 | 0 | 1 | 0 |
| PasserByVol: | 0 | 23 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 260 | 1247 | 316 | 91 | 1418 | 229 | 226 | 212 | 273 | 304 | 145 | 88 |
| 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: | 260 | 1247 | 316 | 91 | 1418 | 229 | 226 | 212 | 273 | 304 | 145 | 88 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 260 | 1247 | 316 | 91 | 1418 | 229 | 226 | 212 | 273 | 304 | 145 | 88 |
| 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: | 260 | 1247 | 316 | 91 | 1418 | 229 | 226 | 212 | 273 | 304 | 145 | 88 |
| 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 | 0.93 | 0.95 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.36 | 0.64 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 1900 | 1750 | 2403 | 1146 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.15 | 0.33 | 0.18 | 0.05 | 0.37 | 0.13 | 0.13 | 0.11 | 0.16 | 0.13 | 0.13 | 0.05 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |
| Green Time: | 26.9 | 81.7 | 81.7 | 12.9 | 67.7 | 67.7 | 23.4 | 23.4 | 50.4 | 22.9 | 22.9 | 22.9 |
| Volume/Cap: | 0.84 | 0.61 | 0.34 | 0.61 | 0.84 | 0.30 | 0.84 | 0.73 | 0.47 | 0.84 | 0.84 | 0.34 |
| Delay/Veh: | 79.6 | 25.3 | 20.5 | 75.1 | 42.0 | 27.6 | 75.0 | 66.3 | 41.4 | 75.0 | 75.0 | 59.0 |
| 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: | 79.6 | 25.3 | 20.5 | 75.1 | 42.0 | 27.6 | 75.0 | 66.3 | 41.4 | 75.0 | 75.0 | 59.0 |
| LOS by Move: | E- | C | C+ | E- | D | C | E | E | D | E | E | E+ |
| HCM2k95thQ: | 22 | 32 | 16 | 11 | 50 | 14 | 24 | 20 | 20 | 24 | 24 | 8 |

Note: Queue reported is the number of cars per lane.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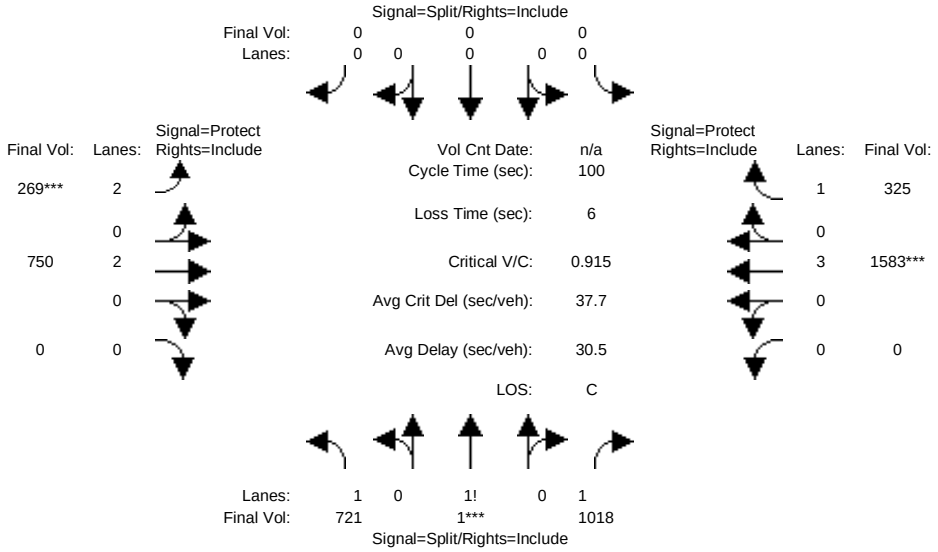
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85

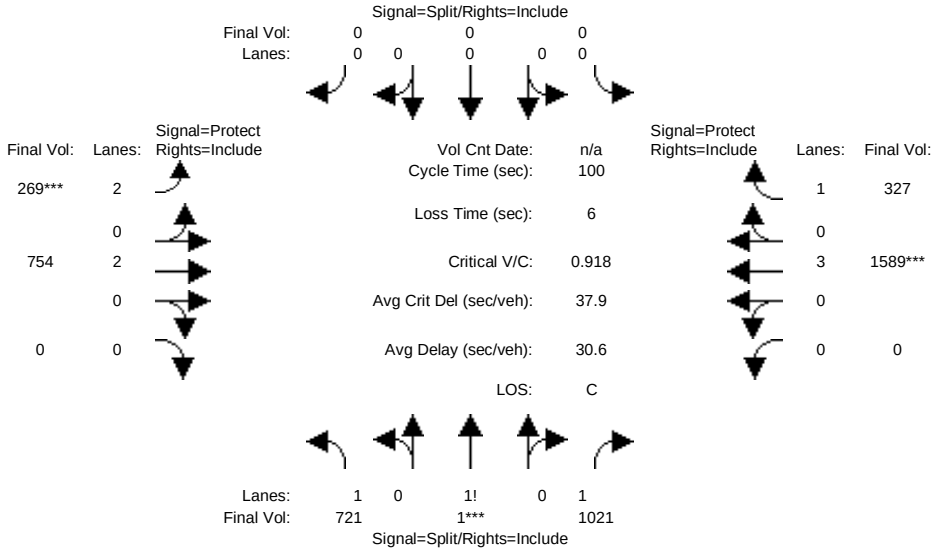



```
Street Name:                SR-85                          Saratoga Avenue
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10     0    0    0     7   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
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     721    1 1006     0    0    0   269  739    0     0 1496  325
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:  721    1 1006     0    0    0   269  739    0     0 1496  325
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0   12     0    0    0     0   11    0     0   87    0
Initial Fut:  721    1 1018     0    0    0   269  750    0     0 1583  325
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:   721    1 1018     0    0    0   269  750    0     0 1583  325
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  721    1 1018     0    0    0   269  750    0     0 1583  325
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:  721    1 1018     0    0    0   269  750    0     0 1583  325
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.92 0.92  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92
Lanes:       1.41 0.01 1.58  0.00 0.00 0.00  2.00 2.00 0.00  0.00 3.00 1.00
Final Sat.:  2475    2 2773     0    0    0  3150 3800    0     0 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.50 0.37  0.00 0.00 0.00  0.09 0.20 0.00  0.00 0.28 0.19
Crit Moves:       ****                       ****                ****
Green Time:  54.3 54.3 54.3   0.0  0.0  0.0   9.3 39.7  0.0   0.0 30.3 30.3
Volume/Cap:  0.54 0.92 0.68  0.00 0.00 0.00  0.92 0.50 0.00  0.00 0.92 0.61
Delay/Veh:   14.9 28.2 17.2   0.0  0.0  0.0  76.4 22.9  0.0   0.0 41.6 31.9
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:  14.9 28.2 17.2   0.0  0.0  0.0  76.4 22.9  0.0   0.0 41.6 31.9
LOS by Move:    B    C    B     A    A    A    E-   C+    A     A    D    C
HCM2k95thQ:    20   49   28     0    0    0   11   16    0     0   28   16
Note: Queue reported is the number of cars per lane.
```

Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

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

## Intersection #3: Saratoga Avenue / NB Ramp SR-85




| Street Name: | SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | 0 | 0 | 7 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 721 | 1 | 1006 | 0 | 0 | 0 | 269 | 739 | 0 | 0 | 1496 | 325 |
| 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: | 721 | 1 | 1006 | 0 | 0 | 0 | 269 | 739 | 0 | 0 | 1496 | 325 |
| Added Vol: | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 6 | 2 |
| PasserByVol: | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 87 | 0 |
| Initial Fut: | 721 | 1 | 1021 | 0 | 0 | 0 | 269 | 754 | 0 | 0 | 1589 | 327 |
| 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: | 721 | 1 | 1021 | 0 | 0 | 0 | 269 | 754 | 0 | 0 | 1589 | 327 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 721 | 1 | 1021 | 0 | 0 | 0 | 269 | 754 | 0 | 0 | 1589 | 327 |
| 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: | 721 | 1 | 1021 | 0 | 0 | 0 | 269 | 754 | 0 | 0 | 1589 | 327 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.83 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.41 | 0.01 | 1.58 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 |
| Final Sat.: | 2473 | 2 | 2775 | 0 | 0 | 0 | 3150 | 3800 | 0 | 0 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.29 | 0.50 | 0.37 | 0.00 | 0.00 | 0.00 | 0.09 | 0.20 | 0.00 | 0.00 | 0.28 | 0.19 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 54.3 | 54.3 | 54.3 | 0.0 | 0.0 | 0.0 | 9.3 | 39.7 | 0.0 | 0.0 | 30.4 | 30.4 |
| Volume/Cap: | 0.54 | 0.92 | 0.68 | 0.00 | 0.00 | 0.00 | 0.92 | 0.50 | 0.00 | 0.00 | 0.92 | 0.61 |
| Delay/Veh: | 14.9 | 28.4 | 17.3 | 0.0 | 0.0 | 0.0 | 76.9 | 22.9 | 0.0 | 0.0 | 41.8 | 32.0 |
| 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: | 14.9 | 28.4 | 17.3 | 0.0 | 0.0 | 0.0 | 76.9 | 22.9 | 0.0 | 0.0 | 41.8 | 32.0 |
| LOS by Move: | B | C | B | A | A | A | E- | C+ | A | A | D | C |
| HCM2k95thQ: | 20 | 49 | 28 | 0 | 0 | 0 | 11 | 16 | 0 | 0 | 28 | 16 |

Note: Queue reported is the number of cars per lane.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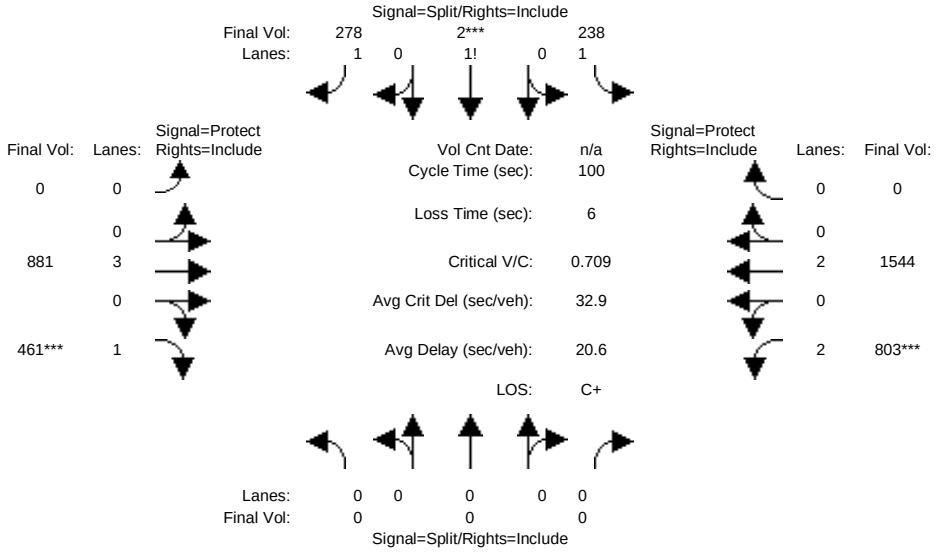
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 870 | 461 | 738 | 1522 | 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: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 870 | 461 | 738 | 1522 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 65 | 22 | 0 |
| Initial Fut: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 881 | 461 | 803 | 1544 | 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: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 881 | 461 | 803 | 1544 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 881 | 461 | 803 | 1544 | 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: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 881 | 461 | 803 | 1544 | 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 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.46 | 0.01 | 1.53 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2551 | 13 | 2686 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.09 | 0.15 | 0.10 | 0.00 | 0.15 | 0.26 | 0.25 | 0.41 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 20.9 | 20.9 | 20.9 | 0.0 | 37.1 | 37.1 | 35.9 | 73.1 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.45 | 0.71 | 0.49 | 0.00 | 0.42 | 0.71 | 0.71 | 0.56 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 34.7 | 40.0 | 35.2 | 0.0 | 23.5 | 30.5 | 29.7 | 6.4 | 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 | 34.7 | 40.0 | 35.2 | 0.0 | 23.5 | 30.5 | 29.7 | 6.4 | 0.0 |
| LOS by Move: | A | A | A | C- | D | D+ | A | C | C | C | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 10 | 17 | 11 | 0 | 13 | 25 | 22 | 19 | 0 |

Note: Queue reported is the number of cars per lane.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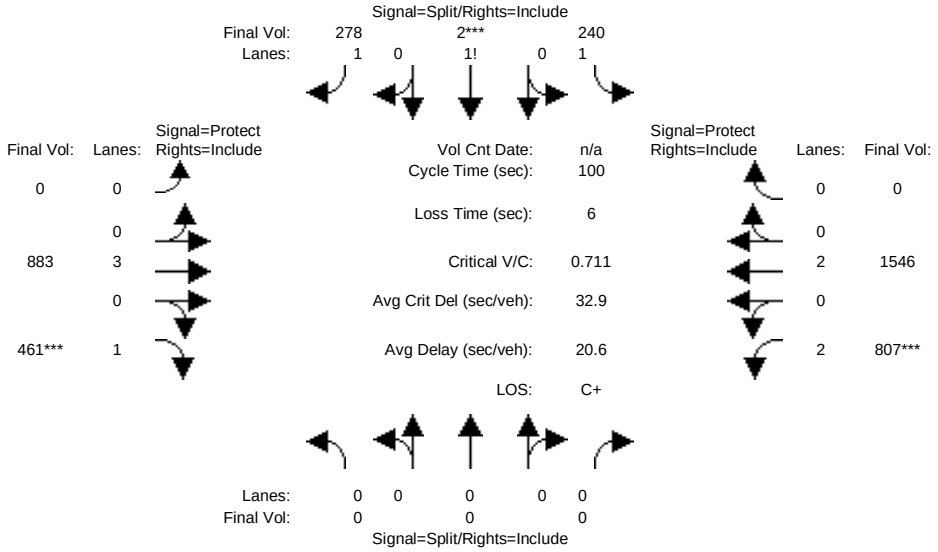
Palm Villas TIA
1025-446 Phase 16
Cumulative PP PM

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

## Intersection #4: Saratoga Avenue / SB Ramp SR-85




| Street Name: | SB Ramp SR-85 | | | | | | Saratoga Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 0 | 0 | 0 | 10 | 10 | 10 | 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 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 870 | 461 | 738 | 1522 | 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: | 0 | 0 | 0 | 238 | 2 | 278 | 0 | 870 | 461 | 738 | 1522 | 0 |
| Added Vol: | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 4 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 65 | 22 | 0 |
| Initial Fut: | 0 | 0 | 0 | 240 | 2 | 278 | 0 | 883 | 461 | 807 | 1546 | 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: | 0 | 0 | 0 | 240 | 2 | 278 | 0 | 883 | 461 | 807 | 1546 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 240 | 2 | 278 | 0 | 883 | 461 | 807 | 1546 | 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: | 0 | 0 | 0 | 240 | 2 | 278 | 0 | 883 | 461 | 807 | 1546 | 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 | 0.83 | 1.00 | 0.92 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.46 | 0.01 | 1.53 | 0.00 | 3.00 | 1.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 2555 | 13 | 2682 | 0 | 5700 | 1750 | 3150 | 3800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.09 | 0.15 | 0.10 | 0.00 | 0.15 | 0.26 | 0.26 | 0.41 | 0.00 |
| Crit Moves: | | | | | **** | | | | **** | **** | | |
| Green Time: | 0.0 | 0.0 | 0.0 | 21.0 | 21.0 | 21.0 | 0.0 | 37.0 | 37.0 | 36.0 | 73.0 | 0.0 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.45 | 0.71 | 0.49 | 0.00 | 0.42 | 0.71 | 0.71 | 0.56 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 34.7 | 40.0 | 35.2 | 0.0 | 23.6 | 30.6 | 29.7 | 6.4 | 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 | 34.7 | 40.0 | 35.2 | 0.0 | 23.6 | 30.6 | 29.7 | 6.4 | 0.0 |
| LOS by Move: | A | A | A | C- | D | D+ | A | C | C | C | A | A |
| HCM2k95thQ: | 0 | 0 | 0 | 10 | 18 | 11 | 0 | 13 | 25 | 22 | 19 | 0 |

Note: Queue reported is the number of cars per lane.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# APPENDIX C: APPROVED, NOT OCCUPIED AND PENDING PROJECTS

**List of Approved, Not Occupied and Pending Projects**

- Cupertino Hotel: 156 hotel rooms
- Boutique Hotel (Cupertino): 185 hotel rooms
- The Oaks: 270 dwelling units, 280 KSF office, 170 hotel rooms, 69.5 KSF retail
- Mariani's Inn, Residences & Senior Living Project: 392 mixed dwelling units, 221.4 KSF commercial space
- Midtown Village: 165 senior dwelling units
- North Sunnyvale Projects: 725 KSF office, 120 mixed dwelling units
- South Sunnyvale Projects: 2,030 KSF office, 125 hotel units
- Vallco Special Area Specific Plan Project: mix of office, residential, retail, entertainment, open space, parking
- Hyatt House Hotel: 148 hotel rooms
- Main Street: 120 apartment units and 20 KSF of retail (unoccupied/not constructed)
- The Hamptons: 942 apartment units
- Marina Plaza: 188 apartment units, 22.6 KSF of retail, 122 hotel rooms
- The Gallery at Central Park (900 Kiely Boulevard): 397 mixed dwelling units (unoccupied)
- Bowers Avenue Office Campus: 300 KSF office
- Gateway Village: 476 residential units and 108.6 KSF of retail
- Lawson Lane Office Campus Phase 2: 153.45 KSF office with 17.16 commons building
- Santa Clara Square: 2,200 apartment units, 40 KSF retail, 42.5 leasing and amenity space
- Scott Boulevard Office Campus: 735 KSF office
- Stevens Creek Boulevard Office Campus (Peery Arrillaga) Phase 2: 147.5 KSF office
- Lawrence Station Project (3505 Kifer Road): 988 dwelling units and 35.2 KSF retail
- Butcher's Corner: 138 residential units and 6.93 KSF retail
- Cityline (2502 Town Center): 315 KSF office, 650 KSF retail, 292 apartment units, 200 hotel rooms
- North Sunnyvale Projects: 10,110 KSF office, 1,600 hotel rooms, and 1,370 mixed dwelling units
- South Sunnyvale Projects: 760 KSF office, 340 hotel rooms, 980 apartments
- Mountain Winery property recentely annexed into the Saratoga City limit
- Quito Village hometown development: 91 units and 5,000 square feet commercial space