

APPENDIX F
Transportation Study



Memorandum

Date: November 10, 2020
To: Ms. Leianne Humble, Denise Duffy & Associates, Inc.
From: Brian Jackson
Subject: Supplemental Traffic Evaluation to Address Changes to the Alleyway for the 802 First Street Residential Project in San Jose, CA

Hexagon Transportation Consultants, Inc. completed a Transportation Analysis (dated April 20, 2020) for a proposed residential mixed-use project at 802 First Street in San Jose, California. As proposed, the project would replace the previous 18,000 square foot (s.f.) tire store (Wheel Works) with up to 250 market-rate residential units and up to 4,700 s.f. of ground floor retail space. Vehicular access to the project site would be provided via one full-access driveway on First Street. Truck access and emergency vehicle access would be provided via an alleyway on Martha Street. The alleyway, which runs parallel to First and Second Streets, currently connects Martha Street to Virginia Street. The alleyway would remain but would no longer connect to Virginia Street as a result of the project. The project would reconfigure the north end of the alleyway so that it curves to the east and intersects Second Street instead of Virginia Street. Access to and from Martha Street would not be affected by the project.

It is our understanding that the City of San Jose Planning Department is proceeding with a General Plan text amendment to remove a portion of the alleyway for the project. However, Planning Department staff have concerns that the proposed change to the north end of the alleyway could affect traffic patterns for the existing neighborhood to the south that currently uses the alleyway for vehicular access. The purpose of this memorandum is to address the Planning Department's concerns.

As noted above, access to and from Martha Street would not be affected by the project. In addition, based on driveway counts that were conducted on February 28, 2019 shortly after Wheel Works closed its doors, there were 10 AM peak hour vehicle trips (10 inbound/0 outbound) and 8 PM peak hour vehicle trips (3 inbound/5 outbound) that utilized the Virginia Street driveway that serves the alleyway. These counts represent the number of vehicle trips that would be shifted from Virginia Street to Second Street due to the alleyway reconfiguration. It is important to note, however, that of the vehicles counted at the existing Virginia Street driveway, the majority of those vehicles (inbound trips in the AM and outbound trips in the PM) parked in the vacant Wheel Works lot and did not access the alleyway to the south. Therefore, the number of vehicle trips associated with the alleyway that would be shifted from Virginia Street to Second Street would actually be fewer than 10 AM peak hour trips and 8 PM peak hour trips.

Based on the small number of vehicle trips utilizing the Virginia Street driveway under the current alleyway configuration, and because the project would not alter access to and from Martha Street, it can be concluded that the project would have no noticeable effect on traffic circulation patterns in the Martha Gardens Area.



HEXAGON TRANSPORTATION CONSULTANTS, INC.



802 First Street Residential

Transportation Analysis

Prepared for:

Denise Duffy & Associates, Inc.

April 20, 2020



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Executive Summary

This report presents the results of the transportation analysis conducted for a proposed residential mixed-use project at 802 First Street in San Jose, California. The project would replace the previous 18,000 square foot (s.f.) tire store (Wheel Works) with up to 250 residential units and up to 4,700 s.f. of ground floor retail space. Vehicular access to the project site (at-grade parking level) would be provided via one full-access driveway on First Street. Truck access and emergency vehicle access would be provided via one driveway from an alleyway on Martha Street. This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed residential mixed-use project.

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook*, adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a Local Transportation Analysis (LTA). The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT). VMT is defined in Chapter 1 of this report. The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for signalized intersections. The LTA also includes an analysis of site access, on-site circulation, vehicle queuing, parking, and effects to transit, bicycle, and pedestrian facilities.

CEQA Transportation Analysis

Residential VMT Impact Analysis Results

Based on the VMT Evaluation Tool and the project's location (APN 472-17-006), the existing VMT for residential uses in the project vicinity is 8.19 per capita, and the current citywide average VMT for residential uses is 11.91 per capita. Thus, the VMT levels of existing residential uses in the project vicinity are less than the citywide average VMT levels. The project VMT estimated by the evaluation tool is 7.93 VMT per capita, which is well below the threshold of 10.12 VMT per capita.

Retail VMT Impact Analysis Results

Since the retail component of the project would meet the screening criteria set forth in the City's *Transportation Analysis Handbook* (less than 100,000 s.f. as described in Chapter 3), a VMT impact analysis is not required for the proposed retail use.

Local Transportation Analysis

Project Trip Generation

After applying the ITE trip rates to the proposed project and applying the appropriate trip adjustments and reductions, the project would generate 1,112 new daily vehicle trips, with 69 new trips occurring during the AM peak hour and 89 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 18 new inbound and 51 new outbound trips during the AM peak hour, and 53 new inbound and 36 new outbound trips during the PM peak hour.

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, none of the study intersections would be adversely affected by the project.

Other Transportation Issues

The proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian or bicycle facilities in the study area. Below are recommendations resulting from the site plan review and parking evaluation.

Recommendations

- Relocate the security gate 35 feet farther into the parking garage in order to provide 50 feet of inbound vehicle storage.
- Remove the three two-hour parking spaces on First Street located just south of the project driveway in order to comply with Caltrans stopping sight distance requirements.
- Provide direct access to the parking garage from the residential move-in space and freight loading space to improve accessibility to the lobby area and elevators.
- Provide a 12-foot wide sidewalk along the project frontage on First Street and a 14-foot wide sidewalk along the project frontage on Second Street.
- Incorporate new ADA compliant curb ramps with truncated domes at the northwest and northeast corners of the project site.
- Coordinate with the City of San Jose Planning Department to determine the project's vehicle and motorcycle parking requirements.

1. Introduction

This report presents the results of the transportation analysis conducted for a proposed residential mixed-use project at 802 First Street in San Jose, California (see Figure 1). The project would replace the previous 18,000 square foot (s.f.) tire store (Wheel Works) with up to 250 residential units and up to 4,700 s.f. of ground floor retail space. Vehicular access to the project site would be provided via one full-access driveway on First Street (see Figure 2). This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed residential mixed-use project.

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook*, adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a Local Transportation Analysis (LTA).

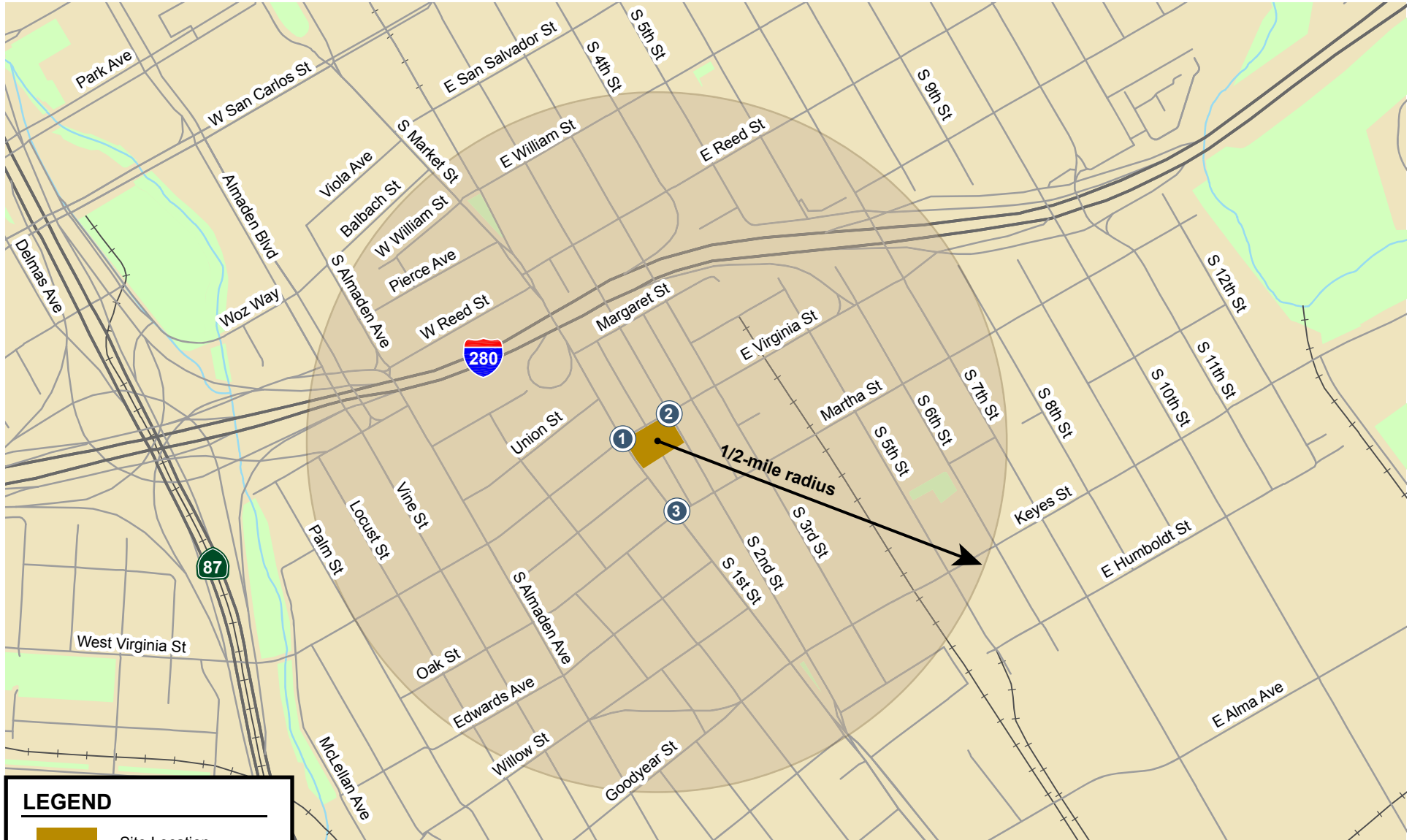
Transportation Policies

In adherence with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose has adopted a new Transportation Analysis Policy, Council Policy 5-1. The Policy replaces its predecessor (Council Policy 5-3) and establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT) instead of intersection level of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. Council Policy 5-1 requires all projects to analyze transportation impacts using the VMT metric.

The new Transportation Analysis Policy 5-1, which took effect on March 29, 2018, aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and service land uses to internalize trips and reduce VMT. VMT-based policies support dense, mixed-use, infill projects as established in the General Plan's Planned Growth Areas.

The Envision San Jose 2040 General Plan contains policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT, including the following:

- Accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and VMT (TR-1.1);
- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);



LEGEND



-  = Site Location
-  = Study Intersection

Figure 1
Site Location and Study Intersections

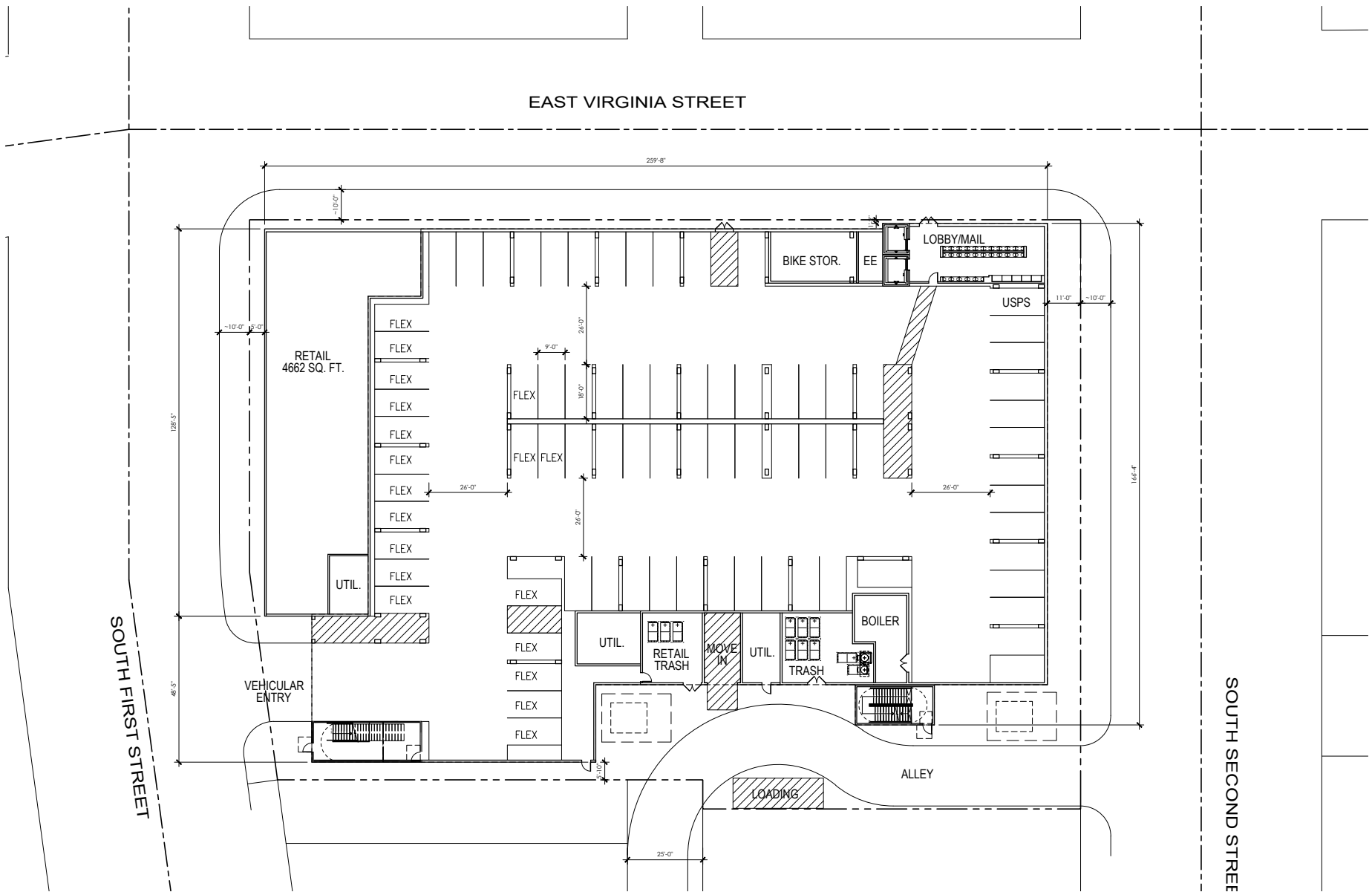


Figure 2
Conceptual Site Plan

- Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle in order to meet the City's mode split targets for San Jose residents and workers (TR-1.3);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emissions standards are met (TR-1.8);
- Give priority to the funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity (TR-1.9);
- Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas) (TR-2.1);
- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San Jose International Airport (TR-2.2);
- Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation (TR-2.5);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);
- Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San Jose (TR-2.10);
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership, and require that new development is designed to accommodate and provide direct access to transit facilities (TR-3.3);
- Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community (TR-4.1);
- Require large employers to develop and maintain TDM programs to reduce the vehicle trips generated by their employees (TR-7.1);

- Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services (TR-8.1);
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages auto use (TR-8.2);
- Support using parking supply limitations and pricing as strategies to encourage the use of non-automobile modes (TR-8.3);
- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Urban Villages and other Growth Areas (TR-8.6);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);
- Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community (LU-10.5);
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

CEQA Transportation Analysis Scope

The City of San Jose's Transportation Analysis Policy (Policy 5-1) establishes procedures for determining project impacts on Vehicle Miles Traveled (VMT) based on project description, characteristics, and/or location. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit service in the project vicinity.

A project's VMT is compared to the appropriate thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the

number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees to determine the VMT per employee. The project's VMT is then compared to the VMT thresholds of significance established based on the average area VMT. A project located in a downtown area is expected to have the project VMT lower than the average area VMT, while a project located in a suburban area is expected to generate project VMT higher than the average area VMT.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, and industrial projects with local traffic. The tool estimates a project's VMT and compares it to the appropriate thresholds of significance based on the project location (i.e., assessor's parcel number) and type of development.

The thresholds of significance for development projects, as established in the Transportation Analysis Policy, are based on the existing citywide average VMT level for residential uses and the existing regional average VMT level for employment uses. Figures 3 and 4 show the current VMT levels estimated by the City for residents and workers, respectively, based on the locations of residences and jobs. Developments in the green-colored areas are estimated to have VMT levels that are below the thresholds of significance, while the orange- and pink-colored areas are estimated to have VMT levels that are above the thresholds of significance.

The CEQA transportation analysis of the project includes a project-level VMT impact analysis using the City's VMT evaluation tool and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

Screening for VMT Analysis

The City of San Jose's *Transportation Analysis Handbook, 2018* includes screening criteria for projects that are expected to result in less-than significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis but are still required to provide a Local Transportation Analysis (LTA).

The residential component of the project does not meet the screening criteria set forth in the *Transportation Analysis Handbook*. Thus, a detailed CEQA transportation analysis was prepared. The VMT evaluation tool was used to estimate the VMT for the residential component of the project (see Chapter 3). The retail component of the project meets the screening criteria. The City's screening criteria for CEQA transportation analysis for local-serving retail are described below.

Screening Criteria for Local-Serving Retail

- 100,000 square feet of total gross floor area or less without drive-through operations.

Local Transportation Analysis Scope

A Local Transportation Analysis (LTA) was prepared to identify potential adverse operational effects that may arise due to the new development, as well as evaluate the effects of the new development on site access, circulation, and other safety-related elements in the proximate area of the project.

As part of the LTA, a project is required to conduct an intersection operations analysis if the project is expected to add 10 or more vehicle trips per hour per lane to any signalized intersection that is located within a half-mile of the project site and is currently operating at LOS D or worse. Based on these criteria, as outlined in the City's *Transportation Analysis Handbook*, a list of study intersections is developed. Note that signalized intersections that do not meet all the criteria may also be added to the list of study intersections at the City's discretion.

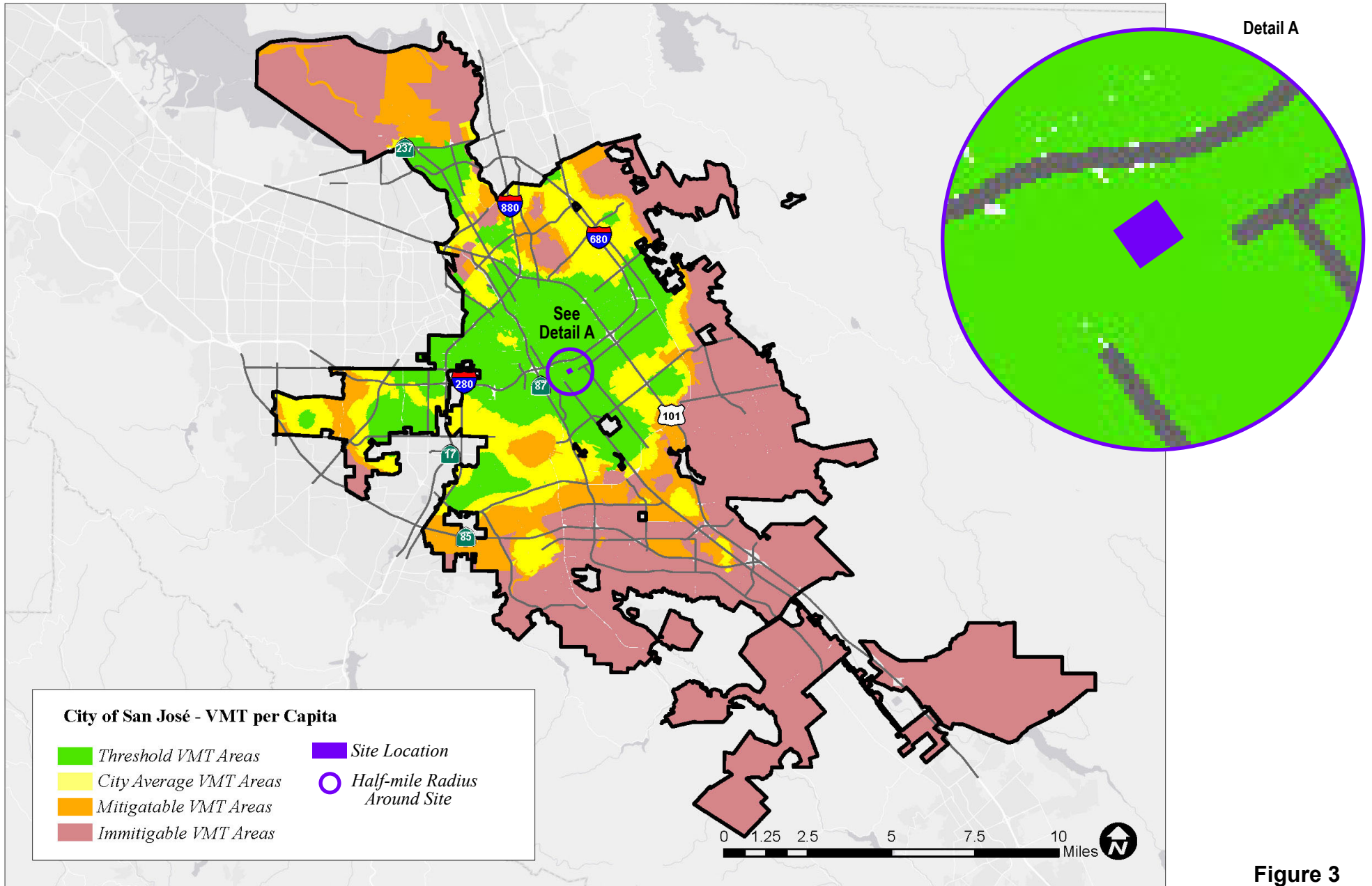


Figure 3
VMT Heat Map for Residents in San Jose

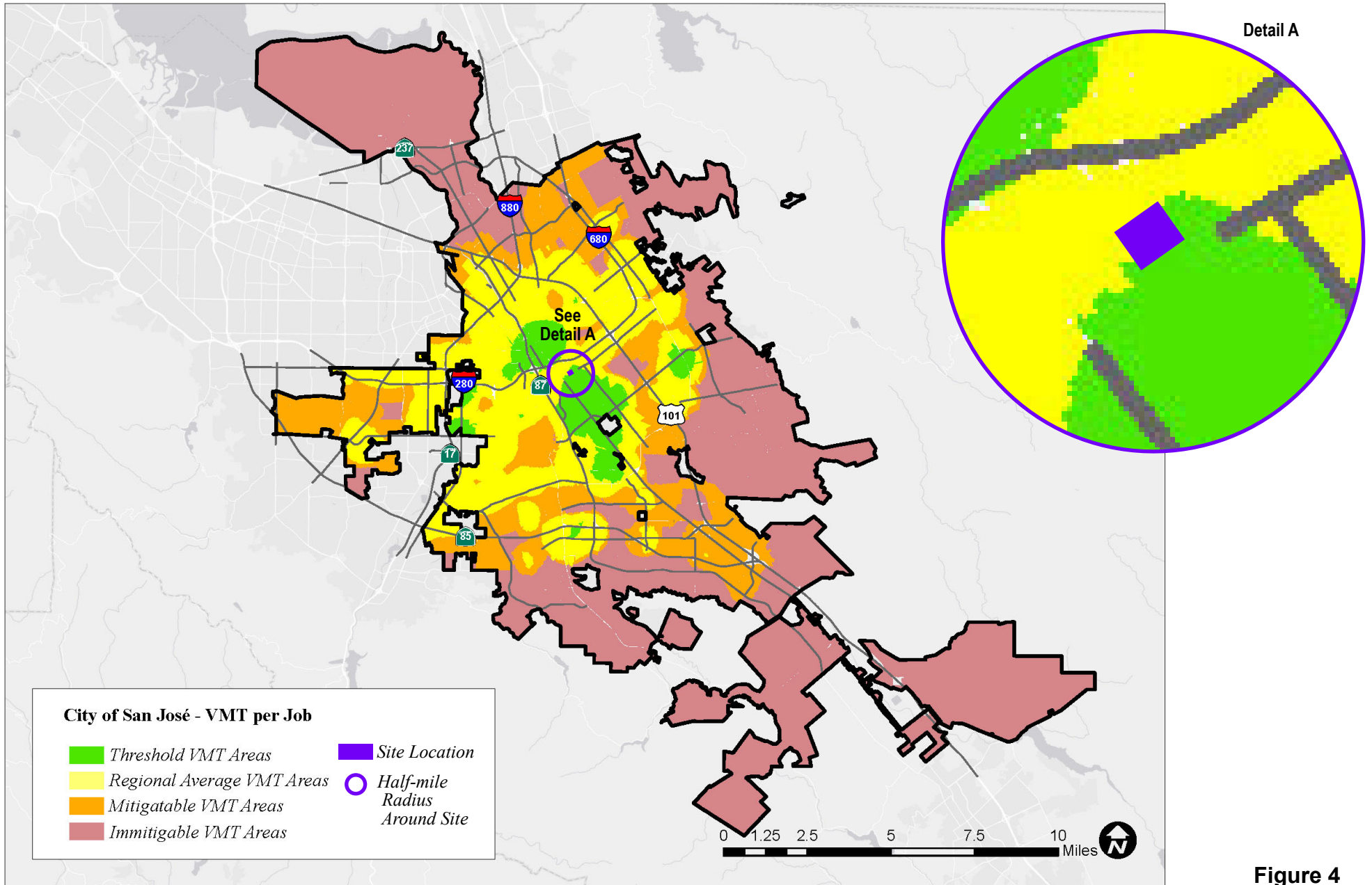


Figure 4
VMT Heat Map for Workers in San Jose

The LTA comprises an analysis of AM and PM peak hour traffic conditions for the following three signalized intersections:

Study Intersections:

1. First Street and Virginia Street
2. Second Street and Virginia Street
3. First Street and Martha Street

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour is generally between 7:00 and 9:00 AM and the weekday PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on a typical weekday. Traffic conditions were evaluated for the following scenarios:

- **Existing Conditions.** Existing AM and PM peak hour traffic volumes were obtained from new turning movement counts conducted on February 28, 2019 (see Appendix A). The new count data have been reviewed and approved by City of San Jose Department of Transportation staff for use in this traffic study. The signalized study intersections were evaluated with a level of service analysis using TRAFFIX software in accordance with the *2000 Highway Capacity Manual* methodology.
- **Background Conditions.** Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project. The ATI sheets are contained in Appendix B.
- **Background Plus Project Conditions.** Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project.

The LTA also includes an analysis of site access, on-site circulation, vehicle queuing, and effects to transit, bicycle, and pedestrian facilities.

VMT Analysis Methodology

Methodology

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, and industrial projects with local traffic. For non-residential or non-office projects, very large projects or projects that can potentially shift travel patterns, the City's Travel Demand Model can be used to determine project VMT. Because the proposed project is a relatively small residential mixed-use development that would generate local traffic, the VMT Evaluation Tool is used to estimate the project VMT and determine whether the project would result in a significant VMT impact.

Based on the assessor's parcel number (APN) of a project, the evaluation tool identifies the existing average VMT per capita and VMT per employee for the area. Based on the project location, type of development, project description, and proposed trip reduction measures, the evaluation tool calculates the project VMT. Projects located in areas where the existing VMT is above the established threshold

are referred to as being in “high-VMT areas”. Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the extent possible.

The VMT Evaluation Tool evaluates a list of selected VMT reduction measures that can be applied to a project to reduce the project VMT. There are four strategy tiers whose effects on VMT can be calculated with the evaluation tool:

1. Project characteristics (e.g. density, diversity of uses, design, and affordability of housing) that encourage walking, biking and transit uses;
2. Multimodal network improvements that increase accessibility for transit users, bicyclists, and pedestrians;
3. Parking measures that discourage personal motorized vehicle-trips; and
4. Transportation demand management (TDM) measures that provide incentives and services to encourage alternatives to personal motorized vehicle-trips.

The first three strategies – land use characteristics, multimodal network improvements, and parking – are physical design strategies that can be incorporated into the project design. TDM includes programmatic measures that aim to reduce VMT by decreasing personal motorized vehicle mode share and by encouraging more walking, biking, and riding transit. TDM measures should be enforced through annual trip monitoring to assess the project’s status in meeting the VMT reduction goals.

Thresholds of Significance

Table 1 shows the VMT thresholds of significance for development projects, as established in the Transportation Analysis Policy. The VMT impact thresholds are 15 percent below the citywide average for residential developments. Thus, projects that include residential uses are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing citywide average VMT per capita minus 15 percent. Currently, the reported citywide average is 11.91 VMT per capita. This equates to a significant impact threshold of 10.12 VMT per capita.

Projects that trigger a significant VMT impact can assess a variety of the four strategies described above to reduce the impact. A significant impact is said to be satisfactorily mitigated when the strategies and VMT reductions implemented render the VMT impact less than significant.

Intersection Operations Analysis Methodology

This section presents the methods used to determine the traffic conditions at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, the applicable intersection level of service standards, and the criteria used to determine adverse effects on intersection operations.

All study intersections are located within the City of San Jose and were evaluated based on the City of San Jose level of service standard.

Data Requirements

The data required for the analysis were obtained from previous traffic studies, the City of San Jose and field observations. The following data were collected from these sources:

- existing traffic volumes
- lane configurations
- signal timing and phasing
- a list of approved projects

Table 1
VMT Thresholds of Significance for Development Projects (March 2018)

Project Types	Significance Criteria	Current Level	Threshold
Residential Uses	Project VMT per capita exceeds existing citywide average VMT per capita minus 15 percent, <u>or</u> existing regional average VMT per capita minus 15 percent, whichever is lower.	11.91 VMT per capita (Citywide Average)	10.12 VMT per capita
General Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee minus 15 percent.	14.37 VMT per employee (Regional Average)	12.21 VMT per employee
Industrial Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee.	14.37 VMT per employee (Regional Average)	14.37 VMT per employee
Retail / Hotel / School Uses	Net increase in existing regional total VMT.	Regional Total VMT	Net Increase
Public / Quasi-Public Uses	In accordance with most appropriate type(s) as determined by Public Works Director.	Appropriate levels listed above	Appropriate thresholds listed above
Mixed-Uses	Evaluate each land use component of a mixed-use project independently, and apply the threshold of significance for each land use type included.	Appropriate levels listed above	Appropriate thresholds listed above
Change of Use / Additions to Existing Development	Evaluate the full site with the change of use or additions to existing development, and apply the threshold of significance for each project type included.	Appropriate levels listed above	Appropriate thresholds listed above
Area Plans	Evaluate each land use component of the Area Plan independently, and apply the threshold of significance for each land use type included.	Appropriate levels listed above	Appropriate thresholds listed above

Source: City of San Jose, 2018 *Transportation Analysis Handbook*, Table 2.

Analysis Methodologies and Level of Service Standard

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

Signalized Intersections

The signalized study intersections are subject to the City of San Jose's level of service standards. The City of San Jose level of service methodology is TRAFFIX, which is based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations on the basis of average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersections level of service methodology, the City of San Jose methodology employs the CMP defaults values for the analysis parameters. The City of San Jose level of service standard for intersections is LOS D or better. The correlation between average delay and level of service is shown in Table 2.

Table 2
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	up to 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Transportation Research Board, *2010 Highway Capacity Manual*, (Washington, D.C., 2010).

Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook, 2018*, an adverse effect on intersection operations would occur if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better) under background conditions to an unacceptable level under background plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F) under background conditions and the addition of project trips cause both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

Adverse effects at signalized intersections can be addressed by one of the following approaches:

- Construct improvements to the subject intersection or other roadway segments of the citywide transportation system to increase overall capacity, or
- Reduce project-generated vehicle trips (e.g., implement a "trip cap") to eliminate the adverse operational effects and restore intersection operations to background conditions. The extent of

trip reduction should be set at a level that is realistically attainable through proven methods of reducing trips.

Intersection Vehicle Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled approaches. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

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

Where:

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

n = number of vehicles in the queue per lane

λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles for a particular left-turn movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Thus, turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections are evaluated based on the delay experienced at the specific study turn movement.

Report Organization

This report has a total of four chapters. Chapter 2 describes existing transportation conditions including the existing roadway network, transit service, and bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis and cumulative transportation impact assessment. Chapter 4 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effects on the transportation system, and an analysis of other transportation issues including site access and circulation, parking, transit services, bicycle and pedestrian facilities, and vehicle queuing.

2. Existing Transportation Conditions

This chapter describes the existing conditions of the transportation system within the study area of the project. It describes transportation facilities in the vicinity of the project site, including the roadway network, transit service, and pedestrian and bicycle facilities. The analysis of existing intersection operations is included as part of the Local Transportation Analysis (see Chapter 3).

Existing Roadway Network

Regional access to the project site is provided via State Route 87 and Interstate 280. These facilities are described below.

SR 87 is a north-south freeway providing regional access to the project site via its connections to SR 85 and US 101 in the south, and I-280 and US 101 in the north. These facilities allow for regional access from East Bay and Peninsula cities, as well as Gilroy and Morgan Hill to San Jose. SR 87 is oriented in a northwest/southwest direction with four mixed-flow lanes and two HOV lanes in the vicinity of the site. SR 87 provides access to the project study area via its interchange with I-280.

I-280 extends from US 101 in San Jose to I-80 in San Francisco. It is generally an east-west oriented eight-lane freeway in the vicinity of downtown San Jose. I-280 access to and from the project site is provided via ramps at 1st Street, 4th Street, 6th Street, 7th Street and Vine Street/Almaden Avenue.

Local access to the project site is provided via First Street, Second Street, Virginia Street and Martha Street. These roadways are described below.

First Street is a north-south four-lane street within the project vicinity south of Reed Street and is a one-way northbound one-lane street north of Reed Street. First Street has a posted speed limit of 35 mph and parking on both sides of the street. There are no bicycle facilities on First Street within the study area, although Sharrows (shared lane markings) do exist north of San Salvador Street. First Street provides access to the project site.

Second Street is a one-way southbound two-lane street within the project vicinity with buffered bike lanes between San Carlos Street and Keyes Street. Second Street has a posted speed limit of 30 mph and parking on both sides of the street. Second Street provides access to the project site.

Virginia Street is an east-west two-lane street that extends from Drake Street to 7th Street as it transitions into the I-280 southbound on ramp. Virginia Street has a posted speed limit of 25 mph and parking on both sides of the street. Sharrows are present on Virginia Street west of 3rd Street. Virginia Street provides access to the project site via First Street and Second Street.

Martha Street is an east-west two-lane street that extends from First Street to 12th Street. West of First Street, Martha Street transitions into Oak Street. Martha Street has a posted speed limit of 25 mph and

parking on both sides of the street. Martha Street provides access to the project site via First Street. There are no bicycle facilities on Martha Street or Oak Street.

Existing Pedestrian, Bicycle and Transit Facilities

San Jose desires to provide a safe, efficient, fiscally, economically, and environmentally-sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit riders with those of automobiles and trucks. The existing bicycle, pedestrian and transit facilities in the study area are described below.

Existing Pedestrian Facilities

A complete network of sidewalks and crosswalks is found along all the roadways in the study area. Crosswalks with pedestrian signal heads are located at all the signalized intersections in the study area. Crosswalks are also provided at some of the nearby unsignalized intersections. At the unsignalized intersection of Second Street and Martha Street, all legs except the north leg have crosswalks. ADA compliant curb ramps with truncated domes are provided at all the street corners in the vicinity of the project site. Truncated domes are the standard design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street. The existing pedestrian facilities provide good connectivity between the project site and the surrounding land uses and transit stops.

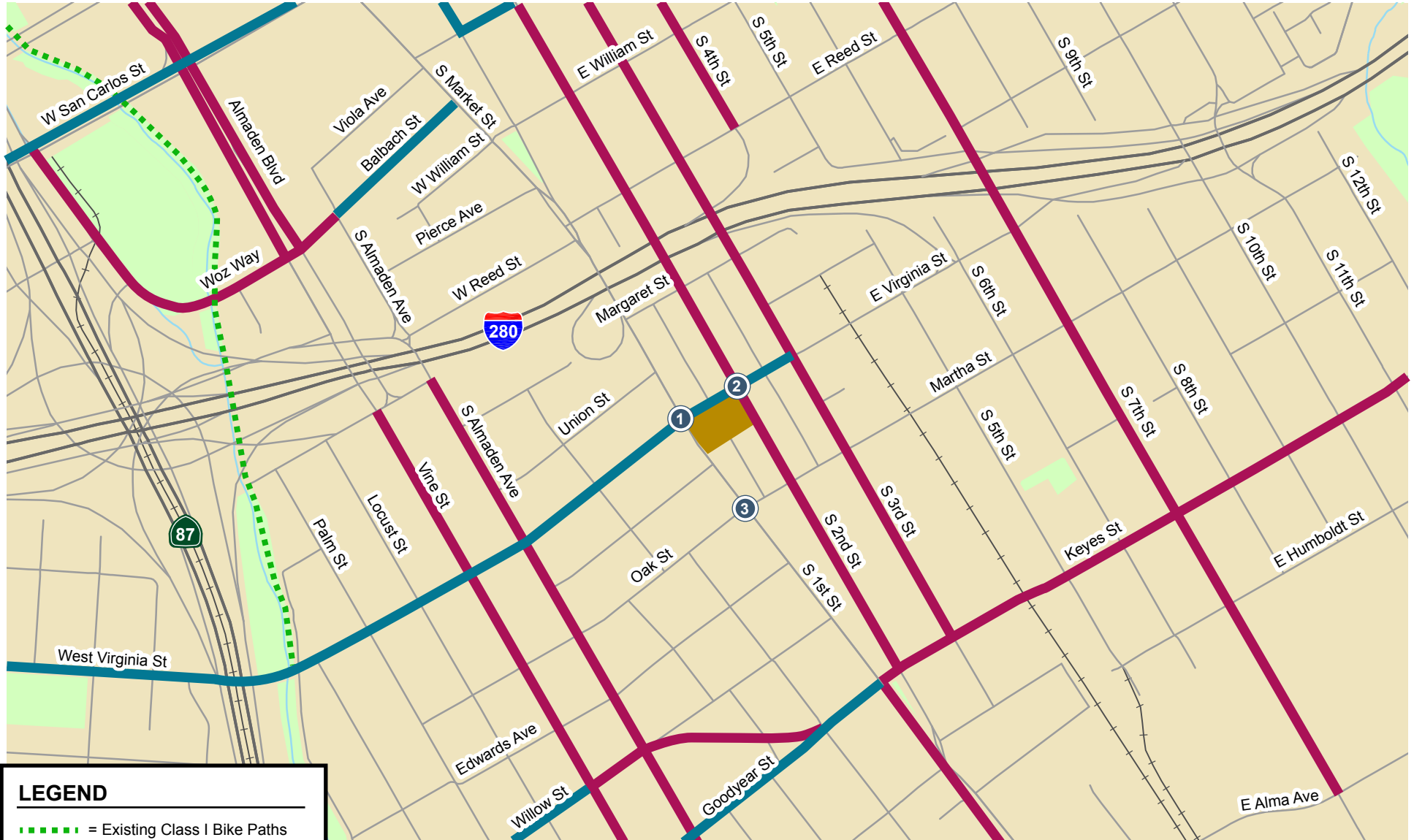
Existing Bicycle Facilities

Bicycle facilities are divided into three classes of relative significance. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Class III bikeways are bike routes and only have signs and/or Sharrows (bike route/shared lane markings) to help guide bicyclists on recommended routes to certain locations.

The Guadalupe River/Los Alamitos Creek multi-use trail system (Class I bikeway) runs through the City of San Jose along the Guadalupe River and separates bicyclists from motor vehicle traffic. The Guadalupe River trail is a continuous Class I bikeway (paved path) from W Virginia Street in the south to Alviso Marina County Park. There is another section of the trail a few blocks south of W Virginia Street from Willow Street to Curtner Avenue, which provides access to trails that lead to Almaden Valley in southern San Jose. This shared trail system runs adjacent to SR 87 near the project vicinity, with trail access provided approximately ½ mile west of the project site at Virginia Street. The trail system is available for use by pedestrians and bicyclists year round.

The on-street bicycle facilities in the project vicinity are described below and are shown on Figure 5.

- Vine Street and Almaden Avenue have striped bike lanes s/o Grant Street and n/o of Woz Way.
- Woz Way has striped bike lanes and Balbach Street is a Class III bike route (Sharrows).
- 2nd Street has buffered bike lanes north of Keyes Street.
- 3rd Street has buffered bike lanes north of Humboldt Street.
- San Carlos and San Salvador Street are Class III bike routes.
- 4th Street has buffered bike lanes north of Reed Street.
- 7th Street has buffered bike lanes between Alma Avenue and the SJSU campus.
- Virginia Street has Sharrows (Class III bike route) west of 3rd Street.
- Keyes Street has striped bike lanes east of 1st Street.
- Goodyear Street has Sharrows west of 1st Street.
- Graham Avenue has striped bike lanes between Willow Street and Goodyear Street.
- Willow Street has Sharrows west of Graham Avenue.



LEGEND

- Existing Class I Bike Paths
- Existing Class II Bike Lanes
- Existing Class III Bike Routes

Figure 5
Existing Bicycle Facilities

The City of San Jose participates in a bike share program, which allows users to rent and return bicycles at various locations in and around the downtown area. The following bike share stations are located within walking distance of the project site: 1st Street at Oak Street and 5th Street at Virginia Street.

Existing Transit Services

Existing transit services near the project site (see Figure 6) are provided by the Santa Clara Valley Transportation Authority (VTA) and Caltrain.

VTA Light Rail Transit (LRT) Service

The VTA currently operates the 42.2-mile light rail line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Milpitas, Mountain View and Sunnyvale. The service operates nearly 24 hours a day with 15-minute headways during much of the day. The Virginia LRT Station is located approximately ½-mile west of the project site on Virginia Street and is served by the Santa Teresa-Alum Rock LRT Line (Line 901). The 901 Line serves the San Jose Diridon Station which provides Caltrain service.

VTA Bus Service

The closest bus stops are located on First Street, just north and south of Virginia Street at the northwest corner of the project site. These bus stops are served by local bus routes 66 and 68. Local bus route 25 stops on Keyes Street at First Street, which is approximately 1,200 feet south of the project site. Table 3 shows the approximate headways for each local bus route.

**Table 3
Existing Bus Routes**

Bus Route	Route Description	Headway¹
Local Route 25	De Anza College to Alum Rock Transit Center	10-15 min
Local Route 66	Kaiser San Jose Medical Center to North Milpitas	15 - 20 min
Local Route 68	Gilroy Transit Center to San Jose Diridon Station	15 - 20 min

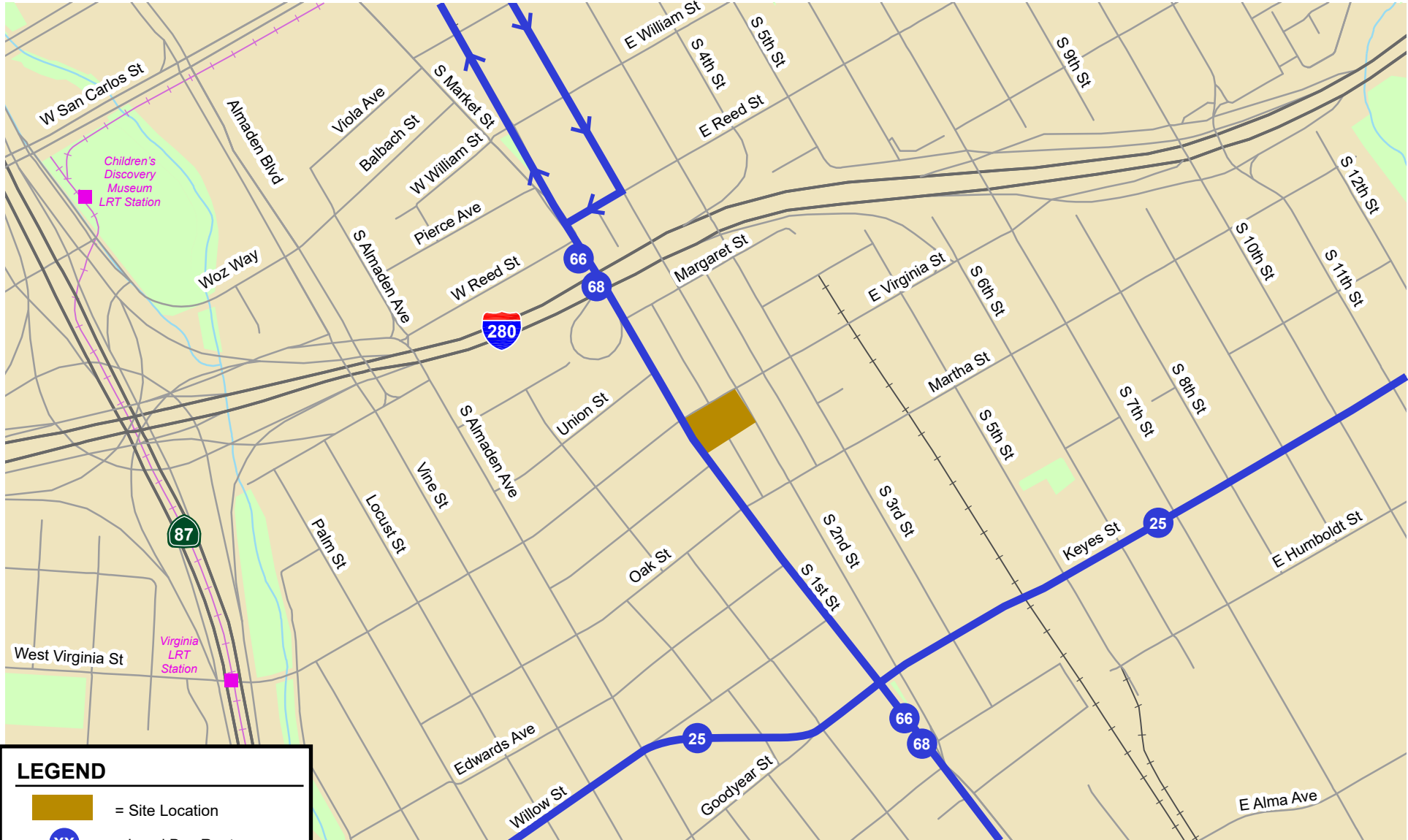
Notes:
¹ Approximate headways during peak weekday commute periods.

Caltrain Service

Commuter rail service between San Francisco and Gilroy is provided by Caltrain. Caltrain operates a total of 92 weekday trains. The Diridon Station is served by the Santa Teresa-Alum Rock LRT Line (Line 901). Local bus route 68 also provides direct access to the Diridon Station and stops adjacent to the project site at the First Street/Virginia Street intersection.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 7.



LEGEND





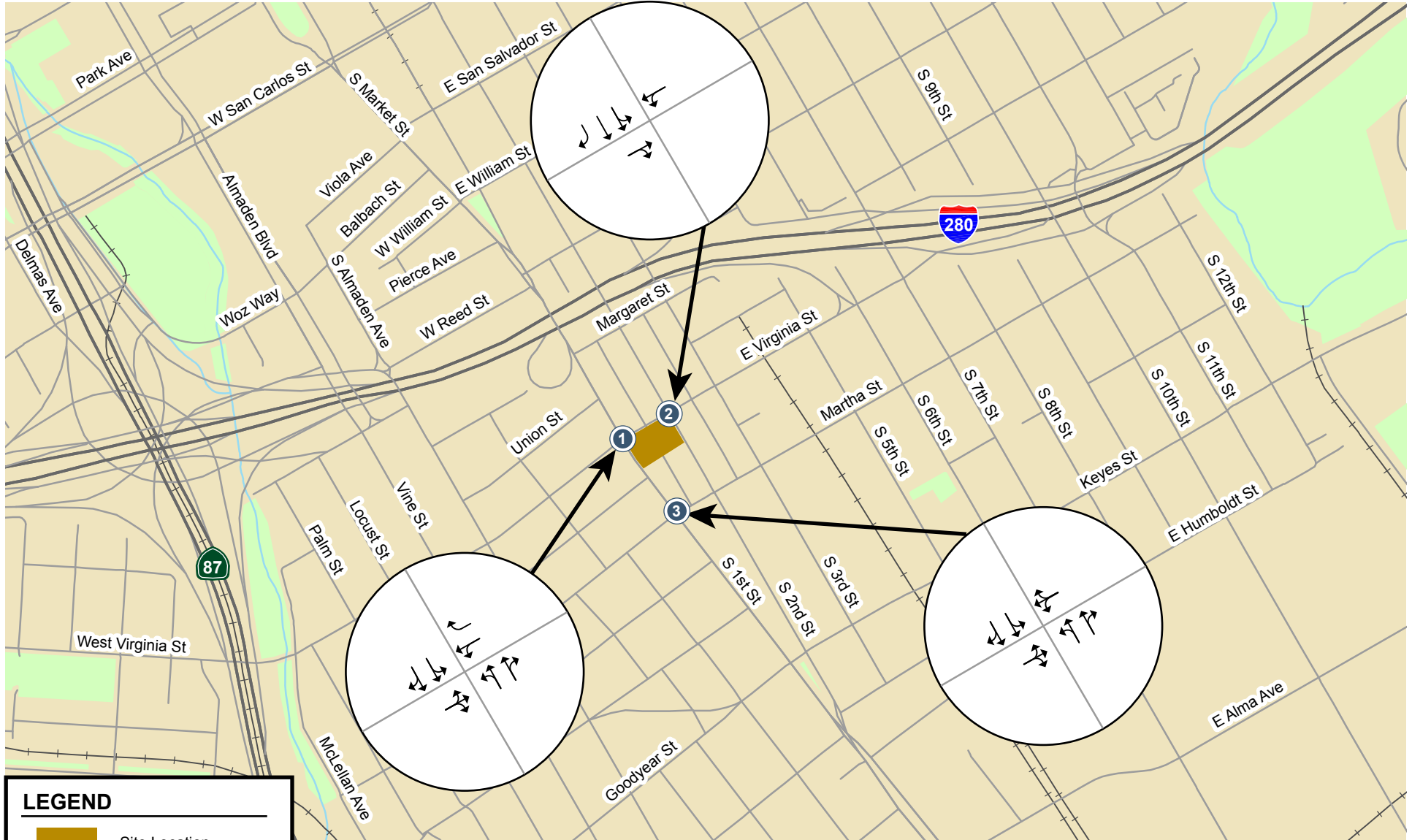
-  = Site Location
-  = Local Bus Route
-  = Light Rail
-  = Light Rail Station

Figure 6
Existing Transit Services



LEGEND



-  = Site Location
-  = Study Intersection

Figure 7
Existing Lane Configurations

Observed Existing Traffic Conditions

Traffic conditions were observed in the field to identify any existing operational deficiencies. Overall, the study intersections operate adequately during the weekday AM and PM peak hours. However, field observations showed that some operational issues currently occur near the project site as described below.

First Street and Virginia Street

During the AM peak hour, vehicles traveling eastbound on Virginia Street and turning left into northbound First Street blocked the intersection for eastbound through vehicles. Most vehicles were able to go around the left-turn vehicle queue, if space was available. Occasionally, the eastbound queue took more than one signal cycle length to clear. The northbound through movement is the heaviest movement at this intersection, but vehicles were able to clear in one cycle length. Northbound and southbound left-turn movements are prohibited from 7:00 to 9:00 AM.

During the PM peak hour, vehicles traveling westbound on Virginia Street and turning left onto southbound First Street blocked the intersection for westbound through vehicles. Most vehicles were able to go around the left-turn vehicle queue due to the presence of red curb.

Second Street and Virginia Street

During the AM and PM peak hours, the intersection operated with very little delay, and no noteworthy operational issues were observed.

First Street and Martha Street

During the AM peak hour, the northbound movement is the heaviest movement at the intersection. There was generally a constant flow of vehicles heading north toward I-280 and downtown San Jose, but the queue never backed up to the upstream intersection as there was a long green time for the northbound movement. All vehicles were able to clear the intersection in one signal cycle length.

3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT threshold of significance, the VMT impact analysis screening criteria, the project-level VMT impact analysis results, mitigation measures to reduce a VMT impact, and the cumulative transportation impact analysis used to determine consistency with the City's General Plan.

Project-Level VMT Impact Analysis

The project-level impact analysis under CEQA uses the VMT metric to evaluate a project's transportation impacts by comparing against the VMT thresholds of significance as established in the Transportation Analysis Policy. The San Jose VMT Evaluation Tool is used to estimate the project VMT based on the project location (APN), type of development, project description, and proposed trip reduction measures. The thresholds of significance for residential uses (see Table 1 in Chapter 1) are used for the VMT analysis. The VMT threshold for residential uses is the existing citywide average VMT level (11.91 per capita) minus 15 percent, which is 10.12 VMT per capita.

The City of San Jose's *Transportation Analysis Handbook, 2018* includes screening criteria for projects that are expected to result in less-than significant VMT impacts based on the project description, characteristics and/or location. The retail component of the project meets the screening criteria. The City's screening criteria for CEQA transportation analysis for local-serving retail are as follows:

- 100,000 square feet of total gross floor area or less without drive-through operations.

Local-serving retail projects tend to shorten vehicle trips and reduce VMT by diverting existing shopping trips from established local retail uses to the new local retail project without measurably increasing trips outside of the local area. Thus, it is presumed that local-serving retail projects will have a less-than significant VMT impact.

The residential component of the project does not meet the screening criteria set forth in the *Transportation Analysis Handbook*. Thus, a detailed CEQA transportation analysis was prepared. The City's VMT Evaluation Tool was used to estimate the VMT for the residential component of the project.

Residential VMT Impact Analysis Results

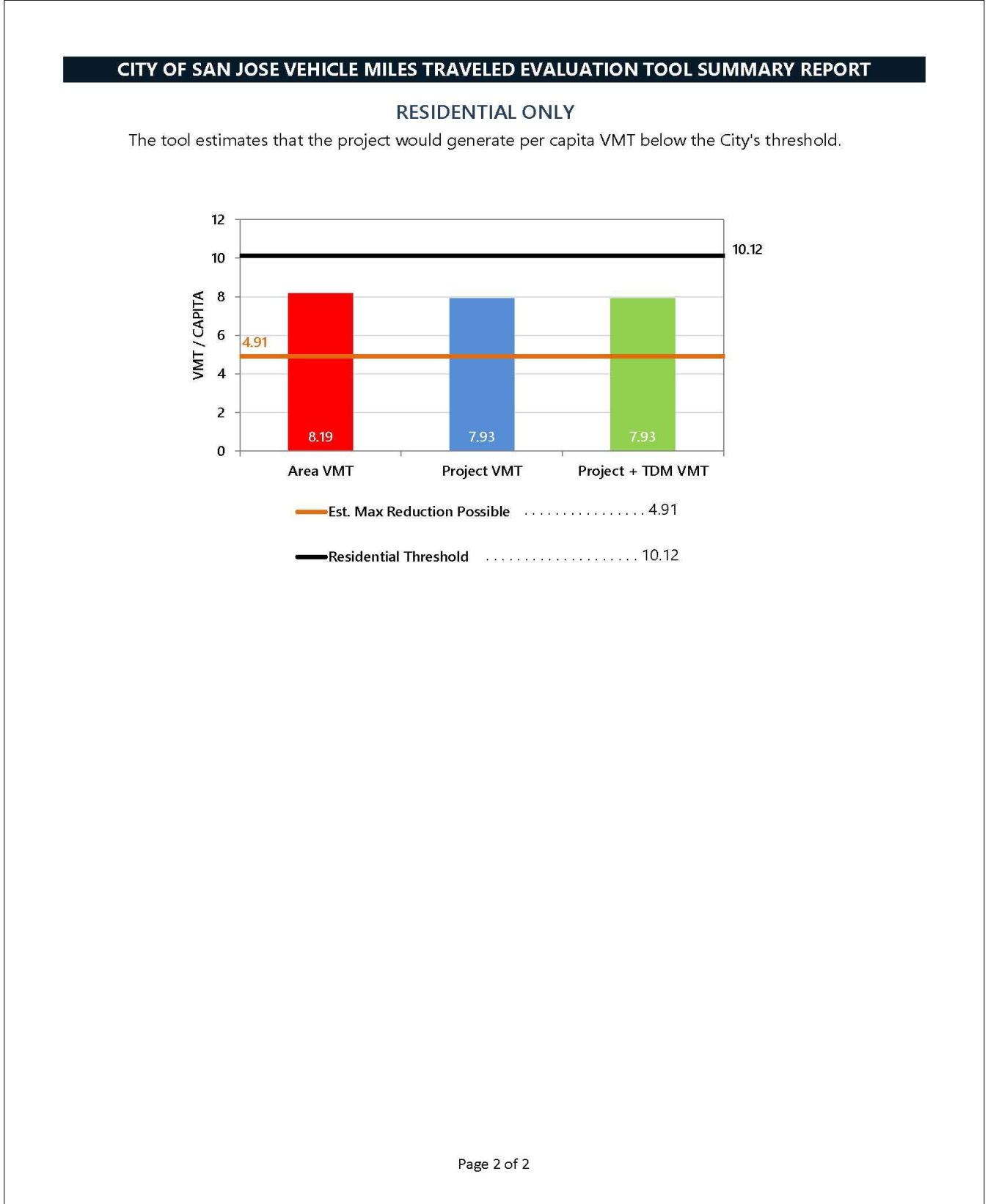
Based on the VMT Evaluation Tool and the project's location (APN 472-17-006), the existing VMT for residential uses in the project vicinity is 8.19 per capita, and the current citywide average VMT for residential uses is 11.91 per capita. Thus, the VMT levels of existing residential uses in the project vicinity are less than the citywide average VMT levels.

The project VMT estimated by the evaluation tool is 7.93 VMT per capita, which is well below the threshold of 10.12 VMT per capita. Therefore, the residential component of the project would have a less-than significant VMT impact. Figure 8 shows the VMT evaluation summary report generated by the City of San Jose's VMT Evaluation Tool.

**Figure 8
San Jose VMT Evaluation Tool Summary Report**

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT			
PROJECT:			
Name:	First & Virginia Residential Mixed-Use Project	Tool Version:	2/29/2019
Location:	802 S. First Street, San Jose, CA	Date:	3/13/2020
Parcel:	47217006	Parcel Type:	Urban High Transit
Proposed Parking Spaces	Vehicles: 76	Bicycles:	63
LAND USE:			
Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	250 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	250 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office:	0 KSF		
Retail:	4.7 KSF		
Industrial:	0 KSF		
VMT REDUCTION STRATEGIES			
Tier 1 - Project Characteristics			
Increase Residential Density			
	Existing Density (DU/Residential Acres in half-mile buffer)		13
	With Project Density (DU/Residential Acres in half-mile buffer)		14
Increase Development Diversity			
	Existing Activity Mix Index		0.47
	With Project Activity Mix Index		0.45
Integrate Affordable and Below Market Rate			
	Extremely Low Income BMR units		0 %
	Very Low Income BMR units		0 %
	Low Income BMR units		0 %
Increase Employment Density			
	Existing Density (Jobs/Commercial Acres in half-mile buffer)		23
	With Project Density (Jobs/Commercial Acres in half-mile buffer)		23
Tier 2 - Multimodal Infrastructure			
Tier 3 - Parking			
Tier 4 - TDM Programs			

Figure 8 (Continued)
San Jose VMT Evaluation Tool Summary Report



Cumulative Impact Analysis

Projects must demonstrate consistency with the Envision San Jose 2040 General Plan to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required as part of the City's *Transportation Analysis Handbook*.

According to the San Jose 2040 General Plan, approximately half of the project site is designated as *Commercial Pedestrian (CP)* and the other half is designated as Commercial Neighborhood (CN). The CP designation supports pedestrian-oriented retail activity land mixed residential/commercial development. The CN designation is a commercial use zone that includes neighborhood centers, multi-tenant commercial, and small corner commercial. The project site is located within the Martha Gardens Specific Plan area, an area located south of downtown San Jose and I-280. The Martha Gardens Specific Plan is consistent with the San Jose Envision 2040 General Plan and furthers the implementation of most of the major strategies of the General Plan.

Martha Gardens Specific Plan Area

As described in the Envision San Jose 2040 General Plan and prior General Plans, the Martha Gardens area is envisioned to be a mix of residential, commercial, recreation, education and arts uses with safe and pleasant pedestrian environments, parks and community facilities, and preserved historic buildings, though it is planned primarily as a residential neighborhood with high-density housing that is urban in character. The project site is divided between the South First Street Corridor and Victorian Neighborhood Subareas of the Martha Gardens Specific Plan.

High-density housing is planned throughout the Martha Gardens area in a variety of densities and configurations. According to the Martha Gardens Specific Plan, the project site is planned for residential densities ranging from 8 to 40 dwelling units per acre (DU/AC). The Plan states that frontages along First Street should be developed with ground floor commercial uses with housing and/or office uses encouraged on subsequent floors, consistent with the neighborhood-serving land use designations. The Martha Gardens Specific Plan includes the following guidelines related to the project site:

- Residential and commercial uses are encouraged on upper levels (3 to 4 stories in height) above the ground level with orientation to South First, Second, East Virginia, Martha and Keyes Streets, with a maximum allowable height of 55 feet of habitable space.
- New development in the South First Street subarea should contribute to the enhancement of the existing pedestrian and retail environment by providing sidewalks that are at least 15 feet in width (combined sidewalk + park strip width). A major objective of the Plan is to create a lively and diverse community that is particularly attractive and convenient for pedestrians.
- Parking for new development should be provided in below-grade and/or encapsulated parking garages.
- Freight loading activities should be managed from curbside loading zones along public streets or within surface parking areas.
- Trash collection receptacles and trash areas should be screened from public view, either within trash enclosures or buildings.
- The existing alley providing access to the project site from Martha Street is to remain with development of the site.

Project Consistency with the 2040 General Plan and Martha Gardens Specific Plan

The project as proposed would include five stories of residential apartments over one ground-floor parking level and retail space. Together, the ground-floor level and the five apartment levels would total 76 feet 5 inches in height. Thus, the project is proposing a building height that is 21 feet 5 inches higher than what is allowed under the Martha Gardens Specific Plan. The proposed building height does not conform to the 2040 General Plan. Accordingly, the project is proposing a General Plan Amendment (GPA) to address the proposed increases in building height.

The project is proposing an overall residential development density of approximately 130 DU/AC (250 DU on 1.93 acres). This is higher than the maximum allowable residential density identified for the project site in the Martha Gardens Specific Plan (as shown in Figure 2: Land Use Plan of the Martha Gardens Specific Plan). The proposed residential development density does not conform to the 2040 General Plan. Accordingly, the project is proposing a General Plan Amendment (GPA) to address the higher residential development density.

The project would construct new 10-foot wide sidewalks along First, Second and Virginia Streets. The proposed 10-foot sidewalk width is not consistent with the Martha Gardens Specific Plan, which requires that sidewalks be at least 15 feet wide. The project is pursuing a Planned Development (PD) permit to address the narrower sidewalks.

The project is consistent with the San Jose Envision 2040 General Plan goals and policies for the following reasons:

- The project would be located in a Planned Growth Area (Martha Gardens Specific Plan Area) as defined in the General Plan.
- The project would provide the minimum amount of parking required to adequately serve the residential and retail parking demand of the project, thereby avoiding excessive parking supply.
- The project would create a pedestrian-friendly environment internal to the site, as well as provide convenient and accessible external connections between the project site the adjoining neighborhood, parks, and transit facilities (nearby bus stops).
- The project would be integrated with the City's transportation system, including transit, roads, and pedestrian facilities.
- The project would be located in an area consisting of a mix of households and jobs (Martha Gardens Specific Plan Area, just south of the Downtown Core), which would provide new residents with the opportunity to live and work in the same community.
- The project would construct new ADA compliant curb ramps with truncated domes at the northwest and northeast corners of the project site.
- Parking for the project would be provided within an on-site parking garage.
- Garbage collection would occur on-site.
- The project would retain the existing alley that provides access to the site from Martha Street.
- The project would not negatively impact existing transit, bicycle or pedestrian infrastructure, nor would it conflict with any adopted plans or policies for new transit, bicycle or pedestrian facilities.

Based on the project description, and with approval of the PD permit and GPA, the proposed residential mixed-use project would be consistent with the *Envision San Jose 2040 General Plan*. The project would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

4. Local Transportation Analysis

This chapter describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis, any adverse effects to intersection level of service caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of San Jose intersections and to identify potential negative effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment are presented in this section. The study intersections are located in the City of San Jose and are evaluated based on the City of San Jose's intersection analysis methodology and standards in determining potential adverse operational effects due to the project, as described in Chapter 1.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by common land uses. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. Trip generation resulting from new development proposed within the City of San Jose typically is estimated using the trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (2017).

Trips that would be generated by the proposed residential units were estimated using the ITE trip rates for "Multifamily Housing Mid-Rise" (ITE Land Use 221) located in a General Urban/Suburban setting. This land use category includes apartments, townhouses and condominiums that have between three and ten levels. The project as proposed would include five stories of residential apartments over one ground-floor parking level.

Trips that would be generated by the proposed ground-floor retail space were estimated using the ITE trip rates for “Shopping Center” (ITE Land Use 820). The ITE Shopping Center rates are commonly applied to a proposed retail development or retail component of a mixed-use development when the specific types of retail uses are not known at the time the study is being prepared. Shopping centers typically contain a wide range of retail land use types and sizes and the ITE Trip Generation manual provides an extensive amount of trip generation data for this land use category. For these reasons, the use of the Shopping Center trip rates presents a reasonable approach to estimating the trip generation for the retail component of the project.

Although the project site is currently occupied by buildings associated with a previous Wheel Works tire shop, the existing buildings are vacant. Therefore, trip credits associated with the previous use were not applied.

Trip Adjustments and Reductions

A 15 percent residential/retail internal mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15 percent reduction was first applied to the smaller generator (retail in both AM and PM). The same number of trips were subtracted from the larger generator (residential) to account for both trip ends.

In accordance with San Jose’s *Transportation Analysis Handbook* (April 2018, Section 4.8, “Intersection Operations Analysis”), the project is eligible for adjustments and reductions from the baseline trip generation described above. Based on the 2018 San Jose guidelines, the project qualifies for a location-based adjustment. The location-based adjustment reflects the project’s vehicle mode share based on the “place type” in which the project is located per the San Jose Travel Demand Model. The project’s place type was obtained from the San Jose VMT Evaluation Tool. Based on the evaluation tool, the project site is located within a designated Urban High Transit place type. Therefore, the baseline project trips were adjusted to reflect an Urban High Transit mode share.

Residential and retail developments within Urban High Transit areas have a vehicle mode share of 78 percent and 83 percent, respectively (according to Table 6 of the City’s *Transportation Analysis Handbook*). Thus, a 22 percent trip reduction was applied to the residential component of the project and a 17 percent trip reduction was applied to the retail component of the project based on the location-based vehicle mode share outputs produced from the San Jose Travel Demand Model for the place type Urban High Transit.

According to the *Transportation Analysis Handbook*, the VMT reduction resulting from implementing the VMT reduction strategies in the evaluation tool should be included as part of the trip generation estimates. A 3 percent trip reduction was applied to the residential component of the project based on the project-specific VMT reductions obtained from the VMT Evaluation Tool.

Pass-By Trip Reduction

A pass-by trip reduction can be applied to the net peak hour trip generation estimates for the proposed retail use. Pass-by-trips are trips that would already be on the adjacent roadways (and so are already counted in the background traffic) but would turn into the site while passing by. Justification for applying the pass-by-trip reduction is founded on the observation that such retail traffic is not actually generated by the retail uses but is already part of the ambient traffic levels.

A PM peak hour pass-by trip reduction of 34 percent was applied to the ground floor retail space based on the ITE Trip Generation Handbook (Third Edition). No AM peak hour pass-by trip reduction was provided for the retail use. A daily pass-by trip reduction of 17% was calculated based on the average of the AM and PM pass-by reduction percentages for the retail use.

Net Project Trips

After applying the ITE trip rates to the proposed project and applying the appropriate trip adjustments and reductions, the project would generate 1,112 new daily vehicle trips, with 69 new trips occurring during the AM peak hour and 89 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 18 new inbound and 51 new outbound trips during the AM peak hour, and 53 new inbound and 36 new outbound trips during the PM peak hour (see Table 4).

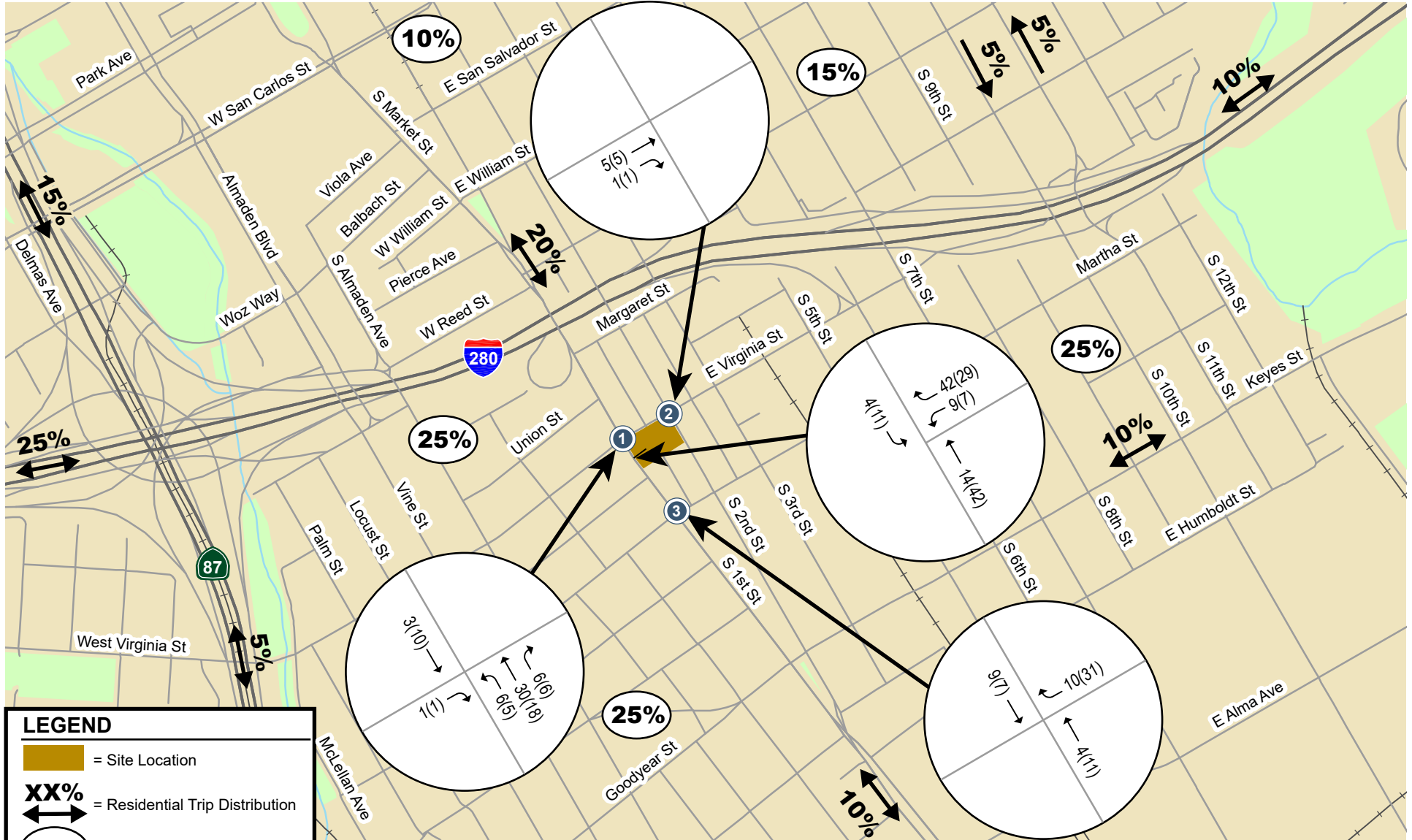
Table 4
Project Trip Generation Estimates

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
				Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Proposed Uses											
Apartments ¹	250 DU	5.44	1,360	0.36	23	67	90	0.44	67	43	110
<i>Residential & Retail Internal Capture (15%)</i> ³			(27)		(1)	0	(1)		(1)	(2)	(3)
<i>Location-Based Vehicle Mode Share (22%)</i> ⁴			(293)		(5)	(15)	(20)		(15)	(9)	(24)
<i>Project-Specific Trip Reduction (3%)</i> ⁵			(31)		(1)	(1)	(2)		(2)	(1)	(3)
Residential Subtotal:			1,009		16	51	67		49	31	80
Retail ²	4,700 s.f.	37.75	177	0.94	2	2	4	3.81	9	9	18
<i>Residential & Retail Internal Capture (15%)</i> ³			(27)		0	(1)	(1)		(2)	(1)	(3)
<i>Location-Based Vehicle Mode Share (17%)</i> ⁴			(26)		0	(1)	(1)		(1)	(1)	(2)
<i>Retail Pass-By External Trip Reduction</i> ⁶			(21)		0	0	0		(2)	(2)	(4)
Retail Subtotal:			103		2	0	2		4	5	9
Net New Trips:			1,112		18	51	69		53	36	89
Notes:											
¹ Trip generation based on average rates contained in the <i>ITE Trip Generation Manual, 10th Edition</i> , for Multifamily Housing Mid-Rise (Land Use 221) located in a General Urban/Suburban setting. Rates are expressed in trips per dwelling unit (DU).											
² Trip generation based on average rates contained in the <i>ITE Trip Generation Manual, 10th Edition</i> , for Shopping Center (Land Use 820). Rates are expressed in trips per 1,000 square feet (s.f.).											
³ A 15% residential/retail internal mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator (residential) to account for both trip ends.											
⁴ A 22% reduction for the residential use and a 17% reduction for the retail use were applied based on the location-based vehicle mode share percentage outputs (Table 6 of <i>TA Handbook</i>) produced from the San Jose Travel Demand Model for the place type Urban High Transit.											
⁵ A 3% reduction for the residential component of the project was applied based on the external trip adjustment obtained from the City's VMT Evaluation Tool. The VMT Evaluation Tool shows no external trip adjustment for the retail component of the project.											
⁶ The PM peak hour pass-by trip reduction percentage (34%) was based on the ITE Trip Generation Handbook (Third Edition). There is no AM peak hour pass-by trip reduction. The daily pass-by trip reduction percentage (17%) was calculated based on the average of the AM and PM pass-by reduction percentages.											

Trip Distribution and Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM commute patterns, the locations of complementary land uses, and freeway access points. The peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern.

Figure 9 shows the project trip distribution patterns and trip assignment at the study intersections and project driveway.



LEGEND

- = Site Location
- XX%** = Residential Trip Distribution
- = Residential Trip Distribution
- XX%** = Retail Trip Distribution
- XX(X) = AM(PM) Peak-Hour Trips

Figure 9
Project Trip Distribution Patterns and Trip Assignment at the Study Intersections and Project Driveway

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Traffic count data for the study intersections were obtained through new turning movement counts (see Appendix A) conducted on a typical weekday (Thursday, February 28, 2019) when schools were in session. The existing peak hour intersection volumes are shown on Figure 10.

Background Traffic Volumes

Background peak hour traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). The background peak hour intersection volumes are shown on Figure 11. The ATI sheets are contained in Appendix B.

Background Plus Project Traffic Volumes

Project peak hour trips were added to background peak hour traffic volumes to obtain background plus project peak hour traffic volumes (see Figure 12).

Intersection Traffic Operations

Intersection levels of service were evaluated against the standards of the City of San Jose. The results of the analysis show that all the signalized study intersections are currently operating at acceptable levels of service (LOS D or better) during the AM and PM peak hours of traffic and would continue to do so under background and background plus project conditions (see Table 5).

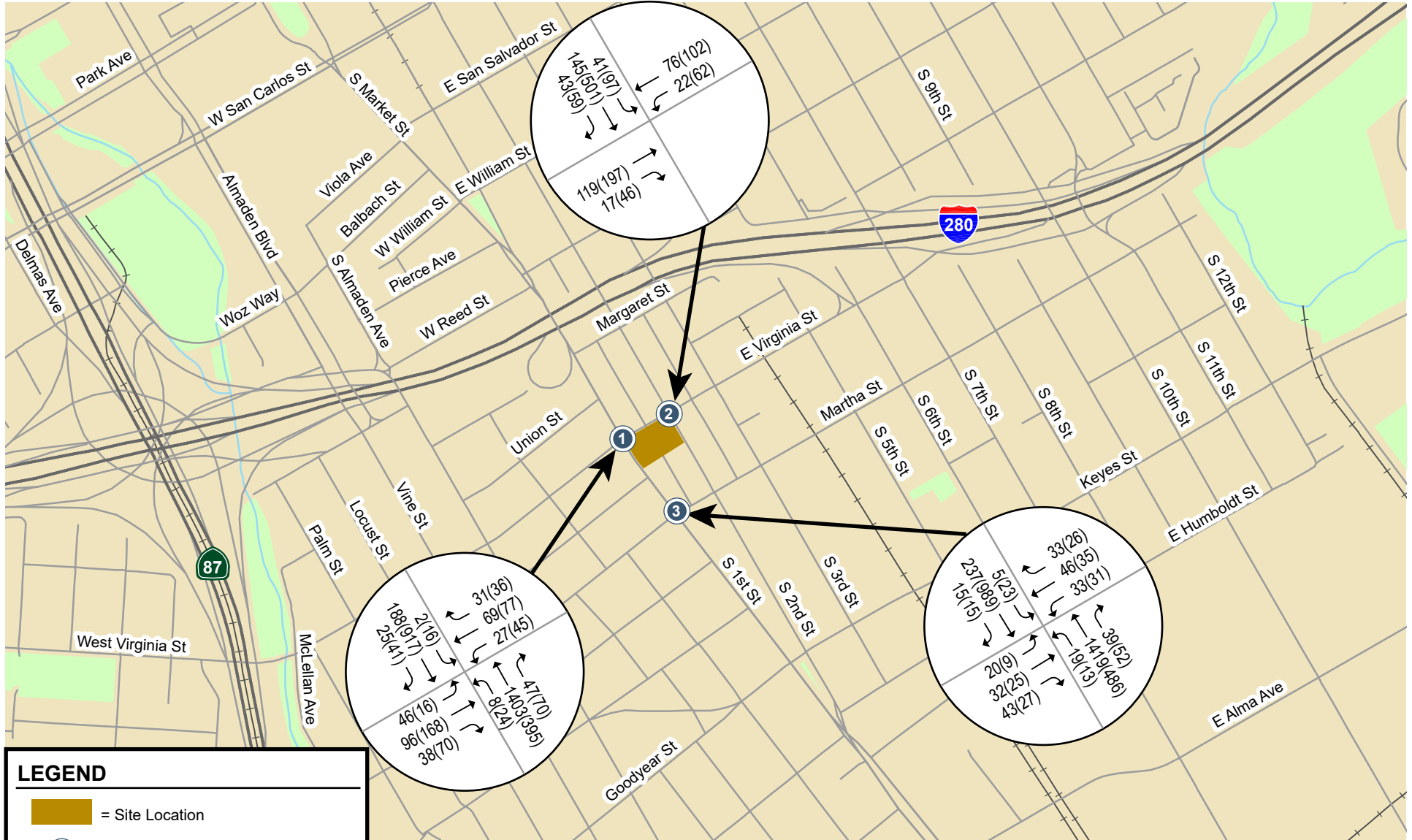
The detailed intersection level of service calculation sheets are included in Appendix C.

Table 5
Intersection Level of Service Summary

#	Signalized Intersection	Peak Hour	Existing		Background		Background + Project			
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	First St & Virginia St	AM	11.1	B	11.2	B	11.1	B	-0.1	0.010
		PM	15.1	B	15.6	B	15.4	B	-0.1	0.003
2	Second St & Virginia St	AM	7.7	A	7.7	A	7.7	A	0.0	0.004
		PM	8.2	A	8.5	A	8.6	A	0.1	0.004
3	First St & Martha St	AM	9.4	A	9.3	A	9.7	A	0.6	0.007
		PM	8.0	A	7.7	A	9.4	A	2.2	0.021

Intersection Queuing Analysis

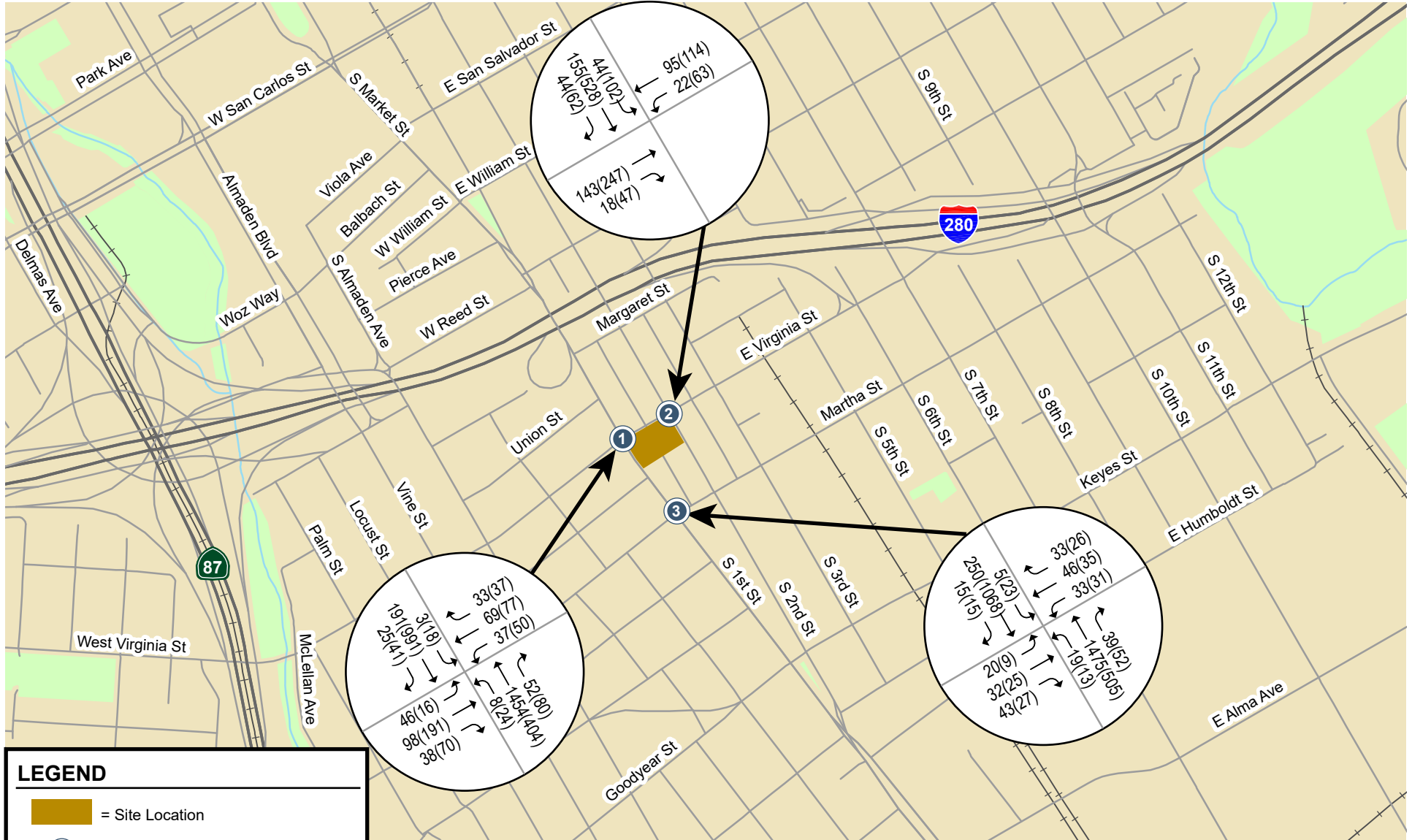
The intersection queuing analysis typically is based on vehicle queuing for high-demand left-turn movements at intersections where the project would add a substantial number of trips. Ten (10) peak-hour vehicle trips or more per lane is usually considered “substantial” for the purpose of the vehicle queuing analysis. Based on the project trip generation and trip assignment, none of the left-turn movements at the study intersections would meet this criterion. Therefore, vehicle queuing at the study intersections was not evaluated. Note that left-turn vehicle queuing at the project driveway on First Street was evaluated in the Site Access and On-Site Circulation section of this report.



LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

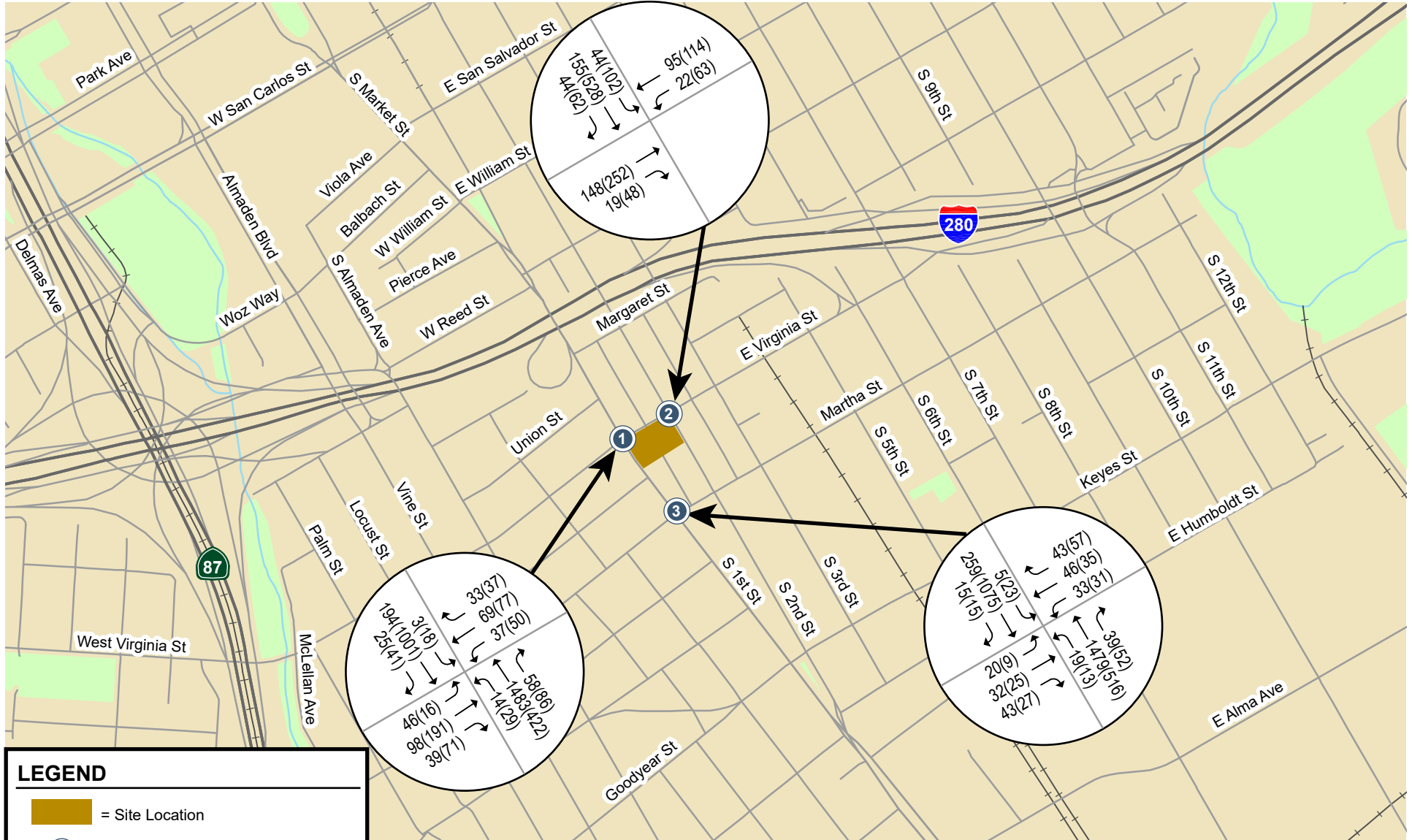
Figure 10
Existing Traffic Volumes



LEGEND

- = Site Location
- X = Study Intersection
- XX(X) = AM(PM) Peak-Hour Traffic Volumes

Figure 11
Background Traffic Volumes



LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 12
Background Plus Project Traffic Volumes

Site Access and On-Site Circulation

The site access and circulation evaluations are based on the March 6, 2020 site plan prepared by AO Architects (see Figure 2 in Chapter 1). Site access was evaluated to determine the adequacy of the site's driveway with regard to the following: traffic volume, geometric design, sight distance and operations (e.g., queuing and delay). On-site vehicular circulation and parking layout were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Vehicular Site Access

As proposed, the project would remove four existing driveways and construct one new driveway. Two existing 38-foot wide driveways (one on First Street and one on Virginia Street) would be removed, and two driveways would be removed on Second Street: one 28-foot driveway and one 18-foot driveway. The project would construct one 26-foot wide full-access driveway on First Street. The project driveway would provide access to one at-grade parking level, as previously shown on Figure 2. The ground-level parking garage would contain 76 secured parking stalls, of which 19 would be shared between residents and retail customers. The existing two-way alley would be retained and would provide truck access and EVA from the south via Martha Street.

According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the standard width for a two-way driveway that serves a multi-family residential development is 26 feet wide. This provides adequate width for vehicular ingress and egress and provides a reasonably short crossing distance for pedestrians. According to the site plan the project driveway would meet this City design standard for driveway width.

The City typically requires developments to provide adequate stacking space for at least two inbound vehicles (approximately 50 feet) between the sidewalk and any entry gates. This prevents vehicles from queuing onto the street. The site plan shows only 15 feet of stacking space between the sidewalk and the security gate. Thus, the security gate should be relocated 35 feet farther into the parking garage.

Driveway Volumes and Operations

The total project-generated trips that are estimated to occur at the project driveway are 18 inbound trips and 51 outbound trips during the AM peak hour, and 53 inbound trips and 36 outbound trips during the PM peak hour (see Figure 9). Based on the project trip distribution patterns and surrounding roadway network, the majority of inbound vehicles (approximately 80 percent) would approach from the south and, thus, would turn right into the site from northbound First Street. The majority of outbound vehicles (also about 80 percent) would turn right from the project driveway onto northbound First Street. Vehicles turning right into and out of the project driveway would experience little to no delay.

It is estimated that 11 vehicles would turn left into the parking garage from southbound First Street during the PM peak hour (or about 1 vehicle entering the site every 5 ½ minutes), and 9 vehicles would turn left from the project driveway onto southbound First Street during the AM peak hour (or about 1 vehicle exiting the site every 6 ½ minutes). Due to the relatively low number of trips expected to turn left into and out of the project driveway, significant operational issues related to vehicle queuing and/or delay are not expected to occur. Note that since the project driveway would be situated only about 150 feet south of the First Street/Virginia Street intersection, the driveway could be blocked occasionally by vehicle queues on northbound First Street. As a result, some inbound vehicles may be forced to wait to turn left into the site, which would block the inside through lane on southbound First Street temporarily. However, the highest southbound left-turn volume at the project driveway would occur during the PM peak hour when the conflicting northbound volume on First Street is relatively low (compared to the

northbound volume during the AM peak hour). As a result, delays for the southbound left-turn movement on First Street would likely not create a significant operational issue at the driveway.

Some minor on-site vehicle queuing could occur due to a combination of the inherent unpredictability of outbound vehicle arrivals at the project driveway and the random occurrence of gaps in traffic along First Street during the weekday peak traffic periods. However, this condition is typical at driveways providing access to residential parking garages along roadways like First Street.

Sight Distance

The project driveway should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles and bicycles traveling on First Street. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. There is no existing landscaping or other visual obstruction along the project frontage that could obscure sight distance at the project driveway, and the site plan does not indicate that any new landscaping would be added.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with Caltrans standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway or locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the Caltrans stopping sight distance. Sight distance requirements vary depending on the roadway speeds. For driveways on First Street, which has a posted speed limit of 35 mph, the Caltrans stopping sight distance is 300 feet (based on a design speed of 40 mph). Thus, a driver must be able to see 300 feet along First Street in order to stop and avoid a collision. Given that on-street parking is permitted along First Street, the three two-hour parking spaces located just south of the project driveway would need to be removed in order to comply with Caltrans stopping sight distance requirements.

On-Site Vehicular Circulation and Parking Garage Layout

On-site vehicular circulation was reviewed for the project in accordance with generally accepted traffic engineering standards and City of San Jose design guidelines. A full-access 26-foot wide driveway on First Street would provide access to the secured ground-level parking garage. The two-way drive aisles within the garage are shown to be 26 feet wide and would be adequate to allow passenger vehicles to navigate through the garage and maneuver in and out of the 90-degree parking spaces. The parking garage would contain no dead-end drive aisles. Note that the City's standard minimum width for two-way drive aisles is 26 feet where 90-degree parking is provided. Thus, the project would meet the City's requirement for drive aisle width.

Parking Stall Dimensions

The City's off-street parking design standard for 90-degree full-size parking stalls is 9 feet wide by 18 feet long. Based on the site plan, all the stalls within the parking garage would meet the City's off-street parking design standard for 90-degree full-size car spaces.

Truck Access and Circulation

The project site plan was reviewed for truck access including delivery and moving trucks, garbage trucks, and emergency vehicles.

Garbage Collection

Garbage collection activities for the project would occur along the alley on the south end of the site. The residential and retail trash rooms would be located adjacent to the realigned alley. The trash bins would be wheeled out and placed adjacent to the alley on garbage collection days and returned to the trash room after garbage pick-up.

Residential Move-In and Commercial Loading Operations

The site plan shows an off-street move-in space for residential moving trucks and vans on the south side of the building, with access provided via the alley. The residential elevators, located in the lobby on the north end of the building, could be accessed through the parking garage. However, the site plan shows the only way to access the parking garage from the loading space is either through the retail trash room or through a small external door located just west of the alley. The project should consider providing direct access to the parking garage from the residential move-in space.

The site plan also shows an off-street commercial freight loading space on the south side of the alley.

Emergency Vehicle Access

The City of San Jose Fire Department requires that all portions of the buildings be within 150 feet of a fire department access road and requires a minimum of 6 feet clearance from the property line along all sides of the buildings. According to the project site plan, the project would meet the 6-foot clearance requirement and the 150-foot fire access requirement. Adequate emergency vehicle access would be provided.

Pedestrian, Bicycle and Transit Analysis

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals and policies of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along many City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Bike and Pedestrian Access

The site plan indicates that the existing sidewalks and curbs along First Street, Second Street and Virginia Street would be reconstructed along the entire project frontage. The new 10-foot wide sidewalk on Virginia Street would provide pedestrian access to the residential lobby and elevators, and the new 10-foot wide sidewalk on First Street would provide access to the retail uses. The new sidewalk on Second Street would also be 10 feet wide. Note that the proposed sidewalk widths do not meet the 15-foot sidewalk width standard outlined in the Martha Gardens Specific Plan.

According to the Envision San Jose 2040 General Plan, First Street is identified as a Grand Boulevard. Grand Boulevards serve as major transportation corridors for primary routes for VTA light-rail, bus rapid transit, standard or community busses, and other public transit vehicles. Although Grand Boulevards accommodate all modes of travel, the primary priority is given to public transit. Per the City of San Jose Complete Streets Design Standard and Guidelines, a Grand Boulevard located in a Commercial zone requires a 12-foot minimum sidewalk width. Thus, the project would be required to provide a 12-foot wide sidewalk along its frontage on First Street.

Note also that the City has indicated a 14-foot wide sidewalk is required along the project frontage on Second Street.

The project should construct new ADA compliant curb ramps with truncated domes at the northwest and northeast corners of the project site. Truncated domes are the standard design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street.

Marked crosswalks are provided with pedestrian signal heads across all legs of the signalized intersections in the surrounding area. Some unsignalized intersections in the study area, including Second Street and Martha Street, have marked crosswalks. The continuous network of sidewalks and crosswalks in the study area has good connectivity and would provide residents and retail customers with safe routes to bus stops and other points of interest in the study area.

Protected bike lanes exist on Second Street, and Virginia Street contains shared lane markings (Sharrows). The site plan shows an at-grade bike room on Virginia Street, adjacent to the residential lobby and elevators. The bike room would provide a total of 63 bicycle parking spaces. Providing convenient and secure bike parking would help to encourage bicycling by residents of the project. In addition, a new bikeshare station is located within walking distance (800 feet) of the project site on Oak Street between First Street and State Street.

The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. The City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more for the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for this project, particularly if transit is utilized in combination with bicycle commuting.

Transit Services

The closest bus stops are located on First Street, just north and south of Virginia Street at the northwest corner of the project site. These bus stops are served by local bus routes 66 and 68. Local bus route 25 stops on Keyes Street at First Street, which is approximately 1,200 feet south of the project site.

The Virginia LRT Station is located approximately a half mile west of the project site on Virginia Street and is served by the Santa Teresa-Alum Rock LRT Line (Line 901). The 901 Line serves the San Jose Diridon Station which provides Caltrain, ACE and Amtrak services.

Due to the project site's proximity to transit stops, it is reasonable to assume that some residents would utilize the transit services provided. The City's General Plan identifies the transit commute mode split target as 20 percent or more for the year 2040. This level of transit ridership is attainable for a project such as this. It is estimated that the increased transit demand generated by the proposed project could be accommodated by the current available ridership capacity of the transit services in the study area.

Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. Because Second Street and Virginia Street are bicycle travel routes, signage would be particularly important to redirect bicyclists to alternative routes in the event the buffered bike lane on Second Street or any part of Virginia Street is blocked by construction activities. Per City standard practice, the project would be

required to submit a construction management plan for City approval that addresses the construction schedule, street closures and/or detours, construction staging areas and parking, and the truck routes.

Parking

Vehicle Parking Requirements

The City of San Jose Zoning Code requirements for retail development and multiple dwellings with all open parking are as follows: 1.0 parking space per 200 square feet of retail space, 1.25 spaces per studio and one-bedroom unit, 1.7 spaces per two-bedroom unit, and 2.0 spaces per three-bedroom unit.

Although this traffic study evaluates a project consisting of up to 250 residential units and up to 4,700 s.f. of retail space, the project as currently proposed consists of 246 residential unit and 4,662 s.f. of retail space. Based on this project description and the City's parking requirements, the project would be required to provide 20 parking spaces for the retail component of the project (based on a FAR of 0.85) and 308 parking spaces for the residential component, for a total parking requirement of 328 parking spaces. The project's parking requirements are as follows:

- $(4,662 \text{ s.f. of retail} \times 0.85) / 200 = 20$ parking spaces
- $246 \text{ studio units} \times 1.25 \text{ spaces} = 308$ parking spaces

Vehicle Parking Supply

The site plan shows the at-grade parking garage would provide a total of 76 secured parking spaces on the basement level, 19 of which would be shared with the retail use. Thus, according to the City of San Jose Zoning Code requirements, the project would have a parking deficit of 233 spaces (assuming all 19 flex spaces could be shared). The applicant should coordinate with the City of San Jose Planning Department to determine the project's vehicle parking requirement.

Motorcycle and Bicycle Parking Requirements

The motorcycle and bicycle parking requirements for the residential and office components of the project are described below.

Motorcycle Parking Requirement

The City requires one motorcycle parking space for every four residential units and one motorcycle parking space for every 20 code-required vehicle parking spaces for commercial uses (per Chapter 20.90, Table 20-250 of the City's Zoning Code). Thus, the project is required to provide a total of 63 motorcycle parking spaces: 62 spaces to serve the residential use and 1 space to serve the retail use.

Bicycle Parking Requirement

The City requires one bicycle parking space for every four residential units and one bicycle parking space for every 3,000 s.f. of retail space (per Chapter 20.90, Tables 20-190 and 20-210 of the City's Zoning Code). Thus, the project is required to provide 63 bicycle parking spaces.

Motorcycle and Bicycle Parking Supply

The project is not proposing any motorcycle parking spaces. The applicant should coordinate with the City of San Jose Planning Department to determine the project's motorcycle parking requirement.

The project is proposing to provide 63 bicycle parking spaces, which would meet the City's bicycle parking requirement.

5. Conclusions

This report presents the results of the transportation analysis conducted for a proposed residential mixed-use project at 802 First Street in San Jose, California. The project would replace the previous 18,000 square foot (s.f.) tire store (Wheel Works) with up to 250 residential units and up to 4,700 s.f. of ground floor retail space. Vehicular access to the project site would be provided via one full-access driveway on First Street. This study was conducted for the purpose of identifying potential transportation impacts and operational issues related to the proposed residential mixed-use project.

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook*, adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a Local Transportation Analysis (LTA). The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT). VMT is defined in Chapter 1 of this report. The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for signalized intersections. The LTA also includes an analysis of site access, on-site circulation, vehicle queuing, parking, and effects to transit, bicycle, and pedestrian facilities.

CEQA Transportation Analysis

Residential VMT Impact Analysis Results

Based on the VMT Evaluation Tool and the project's location (APN 472-17-006), the existing VMT for residential uses in the project vicinity is 8.19 per capita, and the current citywide average VMT for residential uses is 11.91 per capita. Thus, the VMT levels of existing residential uses in the project vicinity are less than the citywide average VMT levels. The project VMT estimated by the evaluation tool is 7.93 VMT per capita, which is well below the threshold of 10.12 VMT per capita.

Retail VMT Impact Analysis Results

Since the retail component of the project would meet the screening criteria set forth in the City's *Transportation Analysis Handbook* (less than 100,000 s.f. as described in Chapter 3), a VMT impact analysis is not required for the proposed retail use.

Local Transportation Analysis

Project Trip Generation

After applying the ITE trip rates to the proposed project and applying the appropriate trip adjustments and reductions, the project would generate 1,112 new daily vehicle trips, with 69 new trips occurring

during the AM peak hour and 89 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 18 new inbound and 51 new outbound trips during the AM peak hour, and 53 new inbound and 36 new outbound trips during the PM peak hour.

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, none of the study intersections would be adversely affected by the project.

Other Transportation Issues

The proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian or bicycle facilities in the study area. Below are recommendations resulting from the site plan review and parking evaluation.

Recommendations

- Relocate the security gate 35 feet farther into the parking garage in order to provide 50 feet of inbound vehicle storage.
- Remove the three two-hour parking spaces on First Street located just south of the project driveway in order to comply with Caltrans stopping sight distance requirements.
- Provide direct access to the parking garage from the residential move-in space and freight loading space to improve accessibility to the lobby area and elevators.
- Provide a 12-foot wide sidewalk along the project frontage on First Street and a 14-foot wide sidewalk along the project frontage on Second Street.
- Incorporate new ADA compliant curb ramps with truncated domes at the northwest and northeast corners of the project site.
- Coordinate with the City of San Jose Planning Department to determine the project's vehicle and motorcycle parking requirements.

**802 First Street Residential TA
Technical Appendices**

April 20, 2020

Appendix A
New Traffic Counts



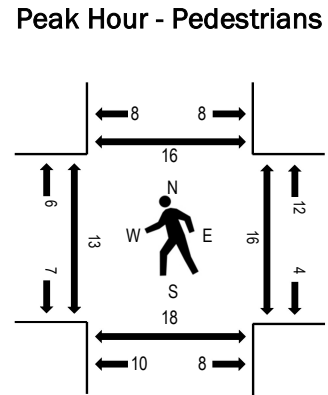
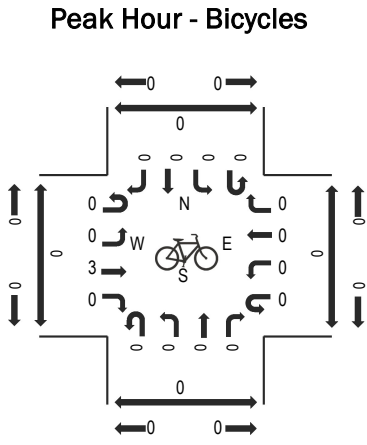
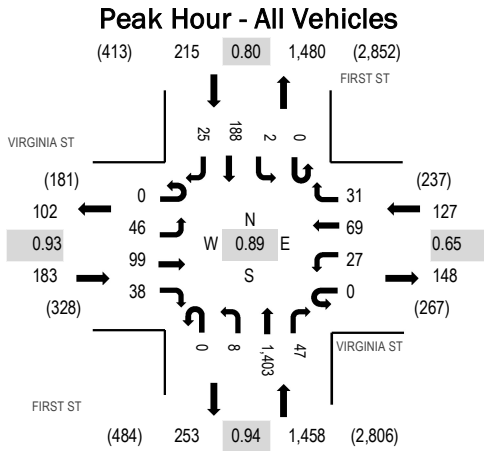
(303) 216-2439
www.alltrafficdata.net

Location: 1 FIRST ST & VIRGINIA ST AM

Date: Thursday, February 28, 2019

Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	VIRGINIA ST Eastbound				VIRGINIA ST Westbound				FIRST ST Northbound				FIRST ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	6	10	9	0	9	12	6	0	2	301	14	0	0	42	2	413	1,906	1	4	3	4
7:15 AM	0	7	20	7	0	6	23	7	0	3	316	8	0	0	42	5	444	1,980	5	1	1	6
7:30 AM	0	12	21	9	0	7	37	11	0	3	377	10	0	1	57	9	554	1,983	4	5	6	6
7:45 AM	0	9	27	9	0	7	12	7	0	3	357	15	0	0	41	8	495	1,887	4	3	3	3
8:00 AM	0	9	27	12	0	5	13	7	0	1	352	16	0	0	41	4	487	1,878	1	4	8	2
8:15 AM	0	16	24	8	0	8	7	6	0	1	317	6	0	1	49	4	447		4	4	1	5
8:30 AM	0	18	30	4	0	5	9	7	0	1	328	13	0	0	41	2	458		0	5	3	1
8:45 AM	0	16	10	8	0	6	10	10	0	3	350	9	0	5	52	7	486		1	2	1	3

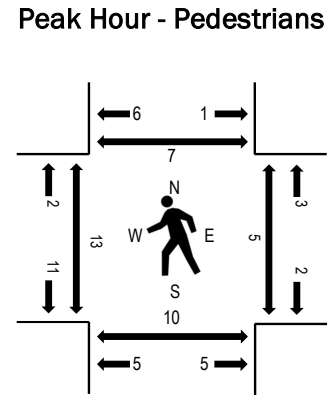
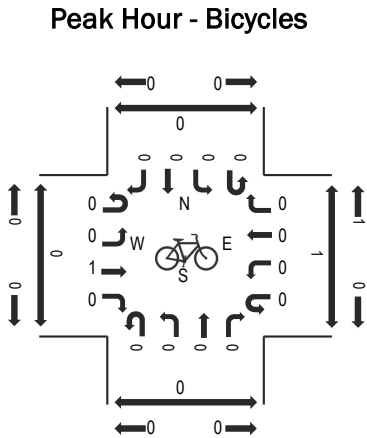
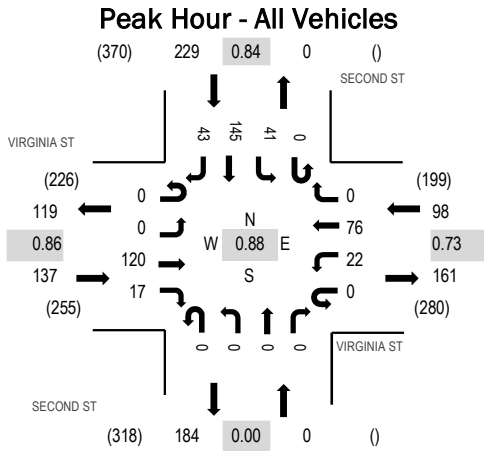
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	3
Bicycles on Road	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lights	0	46	95	34	0	26	69	31	0	7	1,376	47	0	2	167	21	1,921
Mediums	0	0	1	4	0	0	0	0	0	1	26	0	0	0	20	4	56
Total	0	46	99	38	0	27	69	31	0	8	1,403	47	0	2	188	25	1,983



(303) 216-2439
www.alltrafficdata.net

Location: 2 SECOND ST & VIRGINIA ST AM
Date: Thursday, February 28, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	VIRGINIA ST Eastbound				VIRGINIA ST Westbound				SECOND ST Northbound				SECOND ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	19	1	0	5	17	0	0	0	0	0	0	0	3	17	6	68	420	1	3	2	1
7:15 AM	0	0	26	3	0	6	23	0	0	0	0	0	0	0	3	27	14	102	461	2	1	2	1
7:30 AM	0	0	28	0	0	7	29	0	0	0	0	0	0	9	37	22	132	464	5	0	3	1	
7:45 AM	0	0	27	10	0	3	13	0	0	0	0	0	0	16	38	11	118	431	3	0	1	3	
8:00 AM	0	0	30	4	0	7	17	0	0	0	0	0	0	8	37	6	109	404	4	3	4	2	
8:15 AM	0	0	35	3	0	5	17	0	0	0	0	0	0	8	33	4	105		1	2	2	1	
8:30 AM	0	0	38	7	0	8	18	0	0	0	0	0	0	3	21	4	99		3	1	0	2	
8:45 AM	0	0	22	2	0	5	19	0	0	0	0	0	0	5	32	6	91		2	1	4	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2
Bicycles on Road	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	0	118	17	0	22	75	0	0	0	0	0	0	41	141	43	457
Mediums	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	4
Total	0	0	120	17	0	22	76	0	0	0	0	0	0	41	145	43	464



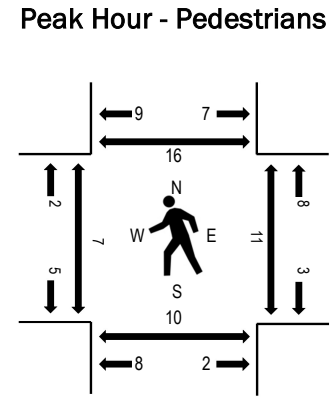
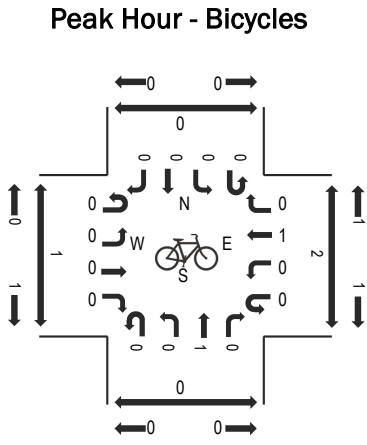
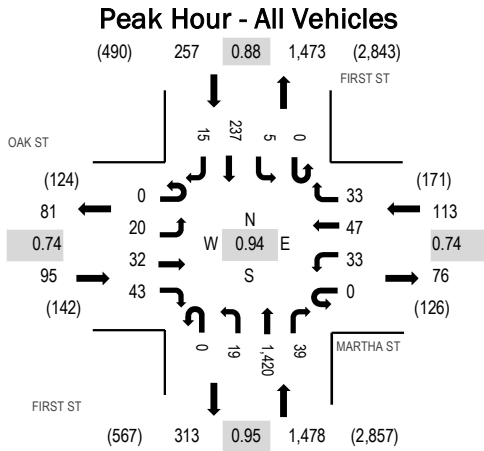
(303) 216-2439
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Location: 3 FIRST ST & MARTHA ST AM

Date: Thursday, February 28, 2019

Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	OAK ST Eastbound				MARTHA ST Westbound				FIRST ST Northbound				FIRST ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	1	6	0	9	4	5	0	4	310	7	0	0	58	4	408	1,853	3	2	0	2
7:15 AM	0	2	7	8	0	5	3	4	0	8	335	5	0	0	51	6	434	1,939	2	1	1	4
7:30 AM	0	4	7	10	0	6	12	9	0	8	379	9	0	1	66	6	517	1,943	1	2	1	2
7:45 AM	0	1	9	6	0	10	17	11	0	8	371	8	0	1	52	0	494	1,847	0	1	3	6
8:00 AM	0	6	8	18	0	13	11	8	0	2	356	10	0	2	53	7	494	1,807	2	4	4	3
8:15 AM	0	9	8	9	0	4	7	5	0	1	314	12	0	1	66	2	438		4	4	2	5
8:30 AM	0	2	8	3	0	3	3	6	0	2	339	7	0	2	44	2	421		6	1	0	9
8:45 AM	0	3	4	3	0	3	3	10	0	2	354	6	0	3	61	2	454		1	1	0	2

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4
Bicycles on Road	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Lights	0	19	31	39	0	32	46	33	0	18	1,389	38	0	5	213	15	1,878
Mediums	0	1	1	4	0	1	0	0	0	1	29	1	0	0	21	0	59
Total	0	20	32	43	0	33	47	33	0	19	1,420	39	0	5	237	15	1,943



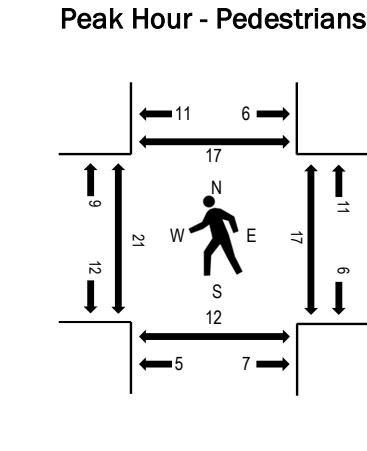
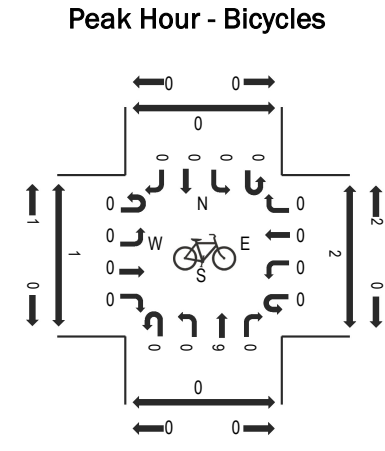
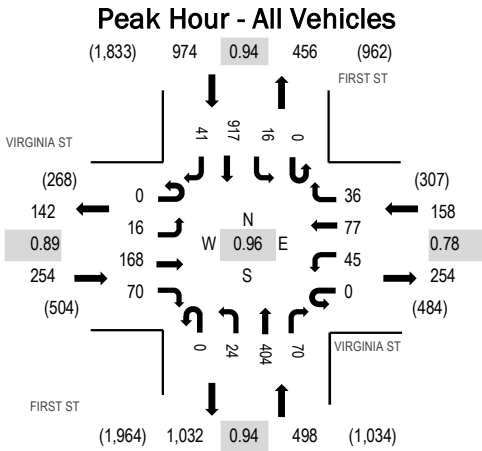
(303) 216-2439
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Location: 1 FIRST ST & VIRGINIA ST PM

Date: Thursday, February 28, 2019

Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	VIRGINIA ST Eastbound				VIRGINIA ST Westbound				FIRST ST Northbound				FIRST ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	6	26	22	0	9	17	9	0	2	111	13	0	9	197	13	434	1,794	6	9	5	9
4:15 PM	0	7	38	24	0	12	12	9	0	7	119	18	0	8	173	11	438	1,801	3	1	1	3
4:30 PM	0	3	36	18	0	14	18	10	0	4	104	18	0	2	220	14	461	1,852	6	3	5	8
4:45 PM	0	4	39	27	0	11	19	9	0	5	115	20	0	3	205	4	461	1,881	3	3	4	2
5:00 PM	0	7	31	15	0	8	16	9	0	9	100	23	0	3	211	9	441	1,884	7	5	4	2
5:15 PM	0	3	39	23	0	12	29	13	0	5	112	18	0	3	220	12	489		6	1	3	6
5:30 PM	0	4	50	19	0	14	16	9	0	2	105	11	0	4	246	10	490		6	6	0	6
5:45 PM	0	2	48	13	0	11	16	5	0	8	87	18	0	6	240	10	464		2	5	5	3

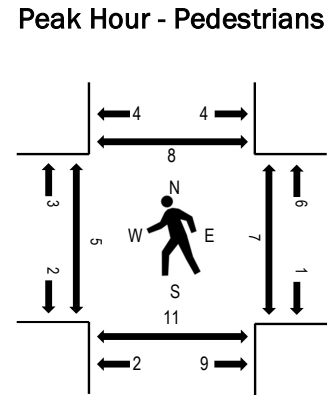
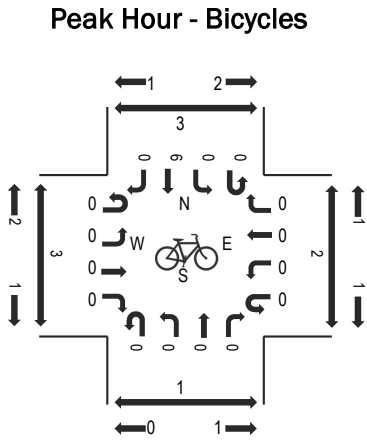
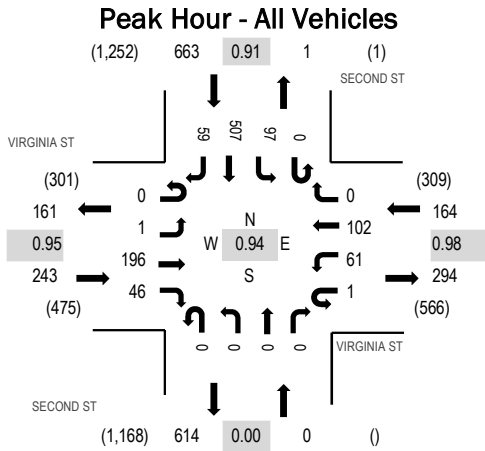
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9
Lights	0	16	167	70	0	45	76	36	0	24	380	70	0	16	898	41	1,839
Mediums	0	0	1	0	0	0	1	0	0	0	15	0	0	0	18	0	35
Total	0	16	168	70	0	45	77	36	0	24	404	70	0	16	917	41	1,884



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Location: 2 SECOND ST & VIRGINIA ST PM
Date: Thursday, February 28, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	VIRGINIA ST Eastbound				VIRGINIA ST Westbound				SECOND ST Northbound				SECOND ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	0	38	7	0	10	28	0	0	0	0	0	0	0	21	120	9	233	969	0	10	6	2
4:15 PM	0	0	54	8	0	11	24	0	0	0	0	0	0	0	15	123	7	242	998	1	8	3	3
4:30 PM	0	0	51	8	0	16	26	0	0	0	0	0	0	0	17	110	15	243	1,040	3	1	2	5
4:45 PM	0	1	48	10	0	15	27	0	0	0	0	0	0	0	24	117	9	251	1,070	1	2	0	3
5:00 PM	0	0	46	12	0	15	25	0	0	0	0	0	0	0	23	129	12	262	1,067	1	3	6	0
5:15 PM	0	0	54	7	1	17	23	0	0	0	0	0	0	0	27	127	28	284		2	1	5	2
5:30 PM	0	0	48	17	0	14	27	0	0	0	0	0	0	0	23	134	10	273		1	1	0	3
5:45 PM	0	0	55	11	0	8	22	0	0	0	0	0	0	0	21	122	9	248		0	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
Lights	0	1	195	46	1	59	100	0	0	0	0	0	0	95	499	59	1,055
Mediums	0	0	1	0	0	1	1	0	0	0	0	0	0	2	2	0	7
Total	0	1	196	46	1	61	102	0	0	0	0	0	0	97	507	59	1,070



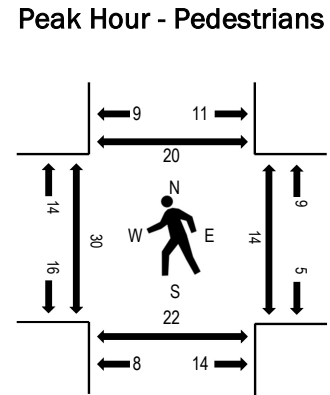
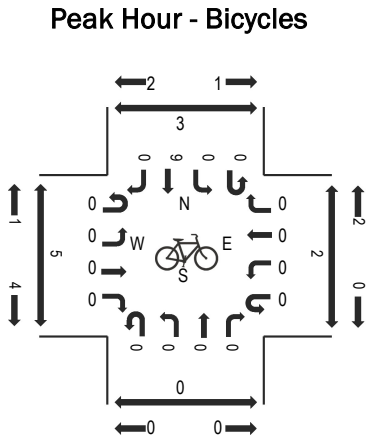
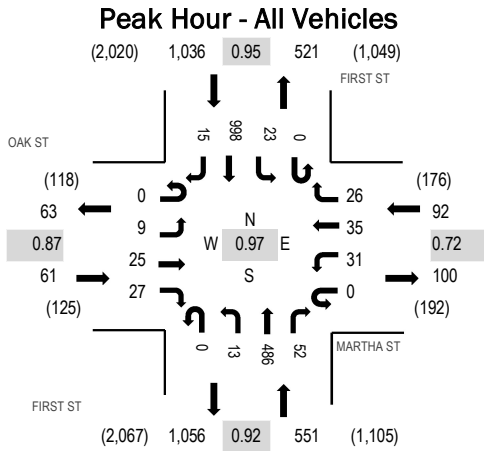
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Location: 3 FIRST ST & MARTHA ST PM

Date: Thursday, February 28, 2019

Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	OAK ST Eastbound				MARTHA ST Westbound				FIRST ST Northbound				FIRST ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	2	7	11	0	6	6	1	0	0	133	13	0	5	236	7	427	1,705	7	9	7	2
4:15 PM	0	1	12	6	0	9	5	5	0	3	145	9	0	4	196	5	400	1,701	7	1	2	5
4:30 PM	0	7	1	5	0	9	10	11	0	3	114	15	0	2	248	4	429	1,731	5	4	7	5
4:45 PM	0	6	6	9	0	8	10	4	0	1	129	13	0	6	249	8	449	1,740	5	0	9	2
5:00 PM	0	2	8	8	0	4	7	8	0	5	128	11	0	9	232	1	423	1,721	7	2	3	5
5:15 PM	0	1	7	4	0	9	7	3	0	1	120	13	0	2	260	3	430		9	8	3	6
5:30 PM	0	0	4	6	0	10	11	11	0	6	109	15	0	6	257	3	438		9	4	7	7
5:45 PM	0	0	5	7	0	12	6	4	0	2	105	12	0	7	266	4	430		12	4	5	5

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9
Lights	0	7	25	27	0	31	35	26	0	13	468	52	0	23	969	15	1,691
Mediums	0	2	0	0	0	0	0	0	0	0	18	0	0	0	18	0	38
Total	0	9	25	27	0	31	35	26	0	13	486	52	0	23	998	15	1,740

Appendix B
San Jose Approved Trips Inventory

AM APPROVED TRIPS

01/30/2019

Intersection of: FIRST/VIRGINIA

Page No: 1

Traffic Node Number: 3520

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
PD08-029 VIRGINIA TERRACE SW QUADRANT OF VIRGINIA STREET AND SIXTH STREET	0	0	5	1	0	0	0	0	0	10	0	2
PDC84-07-059 RIVER PARK II PARK & WOZ (SE/C)	0	8	0	0	0	0	0	0	0	0	0	0
RH00-05-005 BOSTON PROP ALMADEN BLVD/WOZ WAY (NW/C)	0	43	0	0	3	0	0	2	0	0	0	0
TOTAL:	0	51	5	1	3	0	0	2	0	10	0	2
				LEFT	THRU	RIGHT						
				NORTH	1	3	0					
				EAST	10	0	2					
				SOUTH	0	51	5					
				WEST	0	2	0					

PM APPROVED TRIPS

01/30/2019

Intersection of: FIRST/VIRGINIA

Page No: 2

Traffic Node Number: 3520

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
PD08-029 VIRGINIA TERRACE SW QUADRANT OF VIRGINIA STREET AND SIXTH STREET	0	0	10	2	0	0	0	0	0	5	0	1
PDC04-002 BEA SYSTEMS 1ST ST (W/S), B/S OF COMPONENT DR	0	3	0	0	27	0	0	0	0	0	0	0
PDC84-07-059 RIVER PARK II PARK & WOZ (SE/C)	0	1	0	0	8	0	0	0	0	0	0	0
RH00-05-005 BOSTON PROP ALMADEN BLVD/WOZ WAY (NW/C)	0	5	0	0	39	0	0	23	0	0	0	0

TOTAL: 0 9 10 2 74 0 0 23 0 5 0 1

	LEFT	THRU	RIGHT
NORTH	2	74	0
EAST	5	0	1
SOUTH	0	9	10
WEST	0	23	0

AM APPROVED TRIPS

01/30/2019

Intersection of: SECOND/VIRGINIA

Page No: 1

Traffic Node Number: 3796

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
DOWNTOWN DOWNTOWN STRATEGY PLAN 2000 DOWNTOWN CORE	1	62	4	2	10	1	3	12	1	0	7	9
----- PD08-029 VIRGINIA TERRACE SW QUADRANT OF VIRGINIA STREET AND SIXTH STREET	0	0	0	1	0	0	0	7	0	0	12	0
----- RH00-05-005 BOSTON PROP ALMADEN BLVD/WOZ WAY (NW/C)	0	0	0	0	0	0	0	2	0	0	0	0
TOTAL:	1	62	4	3	10	1	3	21	1	0	19	9
				LEFT	THRU	RIGHT						
				NORTH	3	10	1					
				EAST	0	19	9					
				SOUTH	1	62	4					
				WEST	3	21	1					

PM APPROVED TRIPS

01/30/2019

Intersection of: SECOND/VIRGINIA

Page No: 2

Traffic Node Number: 3796

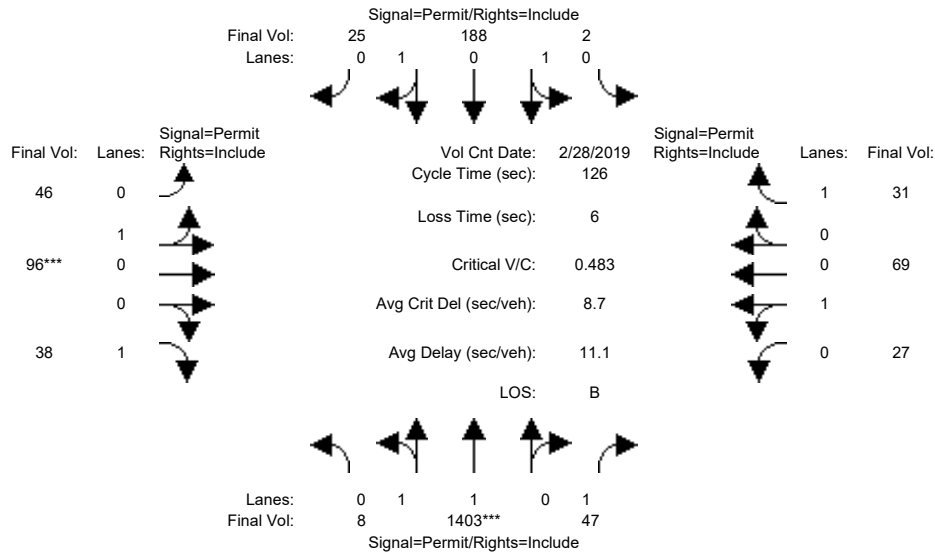
Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
DOWNTOWN DOWNTOWN STRATEGY PLAN 2000 DOWNTOWN CORE	1	12	3	4	27	3	2	13	1	1	6	3
----- PD08-029 VIRGINIA TERRACE SW QUADRANT OF VIRGINIA STREET AND SIXTH STREET	0	0	0	1	0	0	0	12	0	0	6	0
----- RH00-05-005 BOSTON PROP ALMADEN BLVD/WOZ WAY (NW/C)	0	0	0	0	0	0	0	23	0	0	0	0
TOTAL:	1	12	3	5	27	3	2	48	1	1	12	3
				LEFT	THRU	RIGHT						
				NORTH	5	27	3					
				EAST	1	12	3					
				SOUTH	1	12	3					
				WEST	2	48	1					

Appendix C
Intersection Level of Service Calculations

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #1: First St & Virginia St



Street Name: First St Virginia St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	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:	>>	Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	8	1403	47	2	188	25	46	96	38	27	69	31
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:	8	1403	47	2	188	25	46	96	38	27	69	31
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:	8	1403	47	2	188	25	46	96	38	27	69	31
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:	8	1403	47	2	188	25	46	96	38	27	69	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	1403	47	2	188	25	46	96	38	27	69	31
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:	8	1403	47	2	188	25	46	96	38	27	69	31

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.92	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	0.01	1.99	1.00	0.02	1.75	0.23	0.32	0.68	1.00	0.28	0.72	1.00
Final Sat.:	21	3679	1750	33	3148	419	583	1217	1750	506	1294	1750

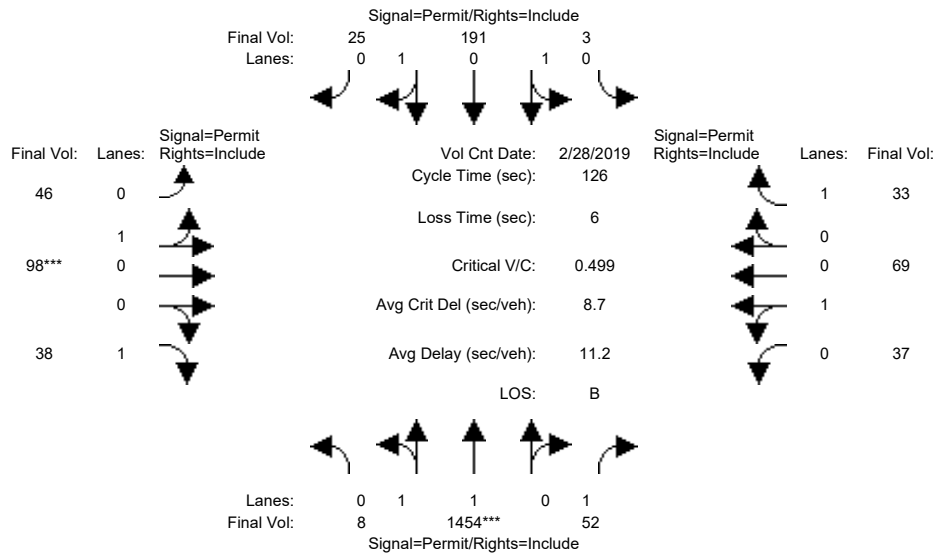
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.03	0.06	0.06	0.06	0.08	0.08	0.02	0.05	0.05	0.02
Crit Moves:	****			****								
Green Time:	99.4	99.4	99.4	99.4	99.4	99.4	20.6	20.6	20.6	20.6	20.6	20.6
Volume/Cap:	0.48	0.48	0.03	0.08	0.08	0.08	0.48	0.48	0.13	0.33	0.33	0.11
Delay/Veh:	4.7	4.7	2.9	3.0	3.0	3.0	49.1	49.1	45.3	47.2	47.2	45.1
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:	4.7	4.7	2.9	3.0	3.0	3.0	49.1	49.1	45.3	47.2	47.2	45.1
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2k95thQ:	18	18	1	2	2	2	11	11	3	7	7	2

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #1: First St & Virginia St



Street Name:	First St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>> Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM
Base Vol:	8 1403	47	2 188	25	46 96 38
Growth Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
Initial Bse:	8 1403	47	2 188	25	46 96 38
Added Vol:	0 0	0	0 0	0	0 0 0
ATI:	0 51	5	1 3	0	0 2 0
Initial Fut:	8 1454	52	3 191	25	46 98 38
User Adj:	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
PHF Volume:	8 1454	52	3 191	25	46 98 38
Reduct Vol:	0 0	0	0 0	0	0 0 0
Reduced Vol:	8 1454	52	3 191	25	46 98 38
PCE Adj:	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
Final Volume:	8 1454	52	3 191	25	46 98 38

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.92	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	0.01	1.99	1.00	0.03	1.74	0.23	0.32	0.68	1.00	0.35	0.65	1.00
Final Sat.:	20	3680	1750	49	3140	411	575	1225	1750	628	1172	1750

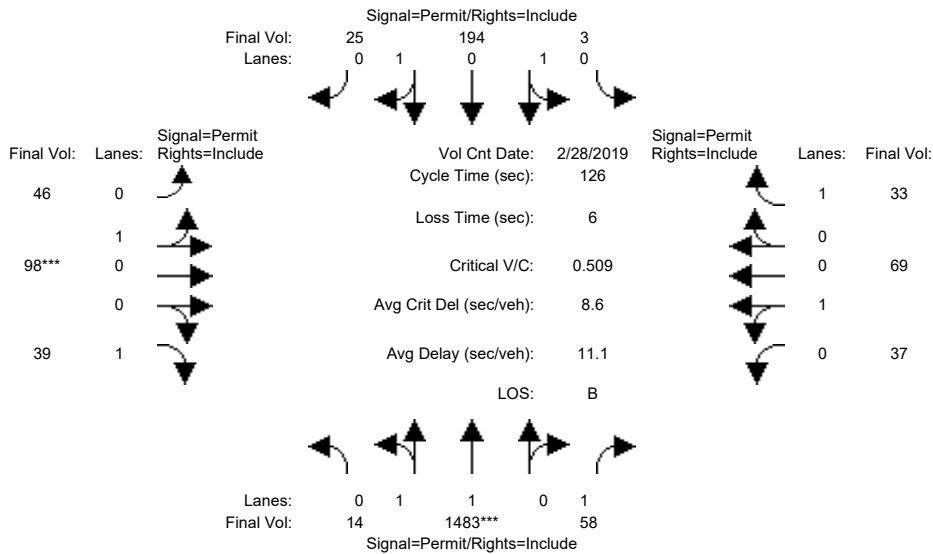
Capacity Analysis Module:												
Vol/Sat:	0.40	0.40	0.03	0.06	0.06	0.06	0.08	0.08	0.02	0.06	0.06	0.02
Crit Moves:	****			****								
Green Time:	99.8	99.8	99.8	99.8	99.8	99.8	20.2	20.2	20.2	20.2	20.2	20.2
Volume/Cap:	0.50	0.50	0.04	0.08	0.08	0.08	0.50	0.50	0.14	0.37	0.37	0.12
Delay/Veh:	4.6	4.6	2.8	2.9	2.9	2.9	49.6	49.6	45.6	48.0	48.0	45.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.6	4.6	2.8	2.9	2.9	2.9	49.6	49.6	45.6	48.0	48.0	45.5
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2k95thQ:	18	18	1	2	2	2	11	11	3	7	7	2

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #1: First St & Virginia St



Street Name:	First St						Virginia St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	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:	>> Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM
Base Vol:	8 1403	47	2 188	25	46 96 38 27 69 31
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:	8 1403	47	2 188	25	46 96 38 27 69 31
Added Vol:	6 29	6	0 3	0	0 0 1 0 0 0
ATI:	0 51	5	1 3	0	0 2 0 10 0 2
Initial Fut:	14 1483	58	3 194	25	46 98 39 37 69 33
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:	14 1483	58	3 194	25	46 98 39 37 69 33
Reduct Vol:	0 0	0	0 0	0	0 0 0 0 0 0
Reduced Vol:	14 1483	58	3 194	25	46 98 39 37 69 33
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
Final Volume:	14 1483	58	3 194	25	46 98 39 37 69 33

Saturation Flow Module:	
Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	0.95 0.97 0.92 0.95 0.95 0.95 0.95 0.95 0.92 0.95 0.95 0.92
Lanes:	0.02 1.98 1.00 0.03 1.75 0.22 0.32 0.68 1.00 0.35 0.65 1.00
Final Sat.:	35 3665 1750 49 3146 405 575 1225 1750 628 1172 1750

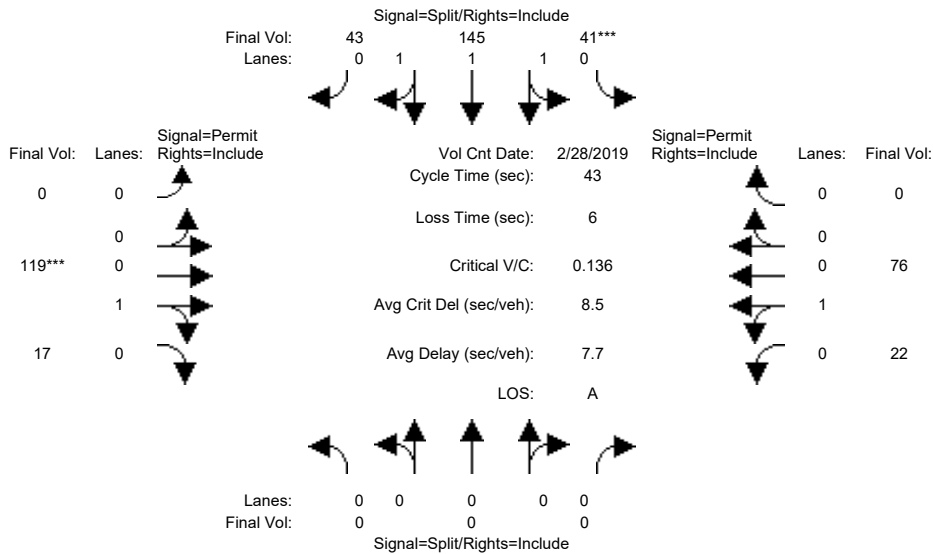
Capacity Analysis Module:	
Vol/Sat:	0.40 0.40 0.03 0.06 0.06 0.06 0.08 0.08 0.02 0.06 0.06 0.02
Crit Moves:	****
Green Time:	100.2 100 100.2 100.2 100 100.2 19.8 19.8 19.8 19.8 19.8 19.8
Volume/Cap:	0.51 0.51 0.04 0.08 0.08 0.08 0.51 0.51 0.14 0.37 0.37 0.12
Delay/Veh:	4.6 4.6 2.7 2.8 2.8 2.8 50.2 50.2 46.0 48.4 48.4 45.8
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:	4.6 4.6 2.7 2.8 2.8 2.8 50.2 50.2 46.0 48.4 48.4 45.8
LOS by Move:	A A A A A A D D D D D
HCM2k95thQ:	19 19 1 2 2 2 11 11 3 7 7 2

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

First & Virginia Residential Mixed-Use Project
250 DU + 4,700 SF Retail
802 First Street, San Jose, CA

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

Intersection #2: Second St & Virginia St



Street Name:	Second St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	10	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	0	0	0	41	145	43	0	119	17	22	76	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	41	145	43	0	119	17	22	76	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	41	145	43	0	119	17	22	76	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	41	145	43	0	119	17	22	76	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	41	145	43	0	119	17	22	76	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
Final Volume:	0	0	0	41	145	43	0	119	17	22	76	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	0.95	0.98	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Lanes:	0.00	0.00	0.00	0.55	1.88	0.57	0.00	0.87	0.13	0.22	0.78	0.00
Final Sat.:	0	0	0	985	3482	1033	0	1575	225	404	1396	0

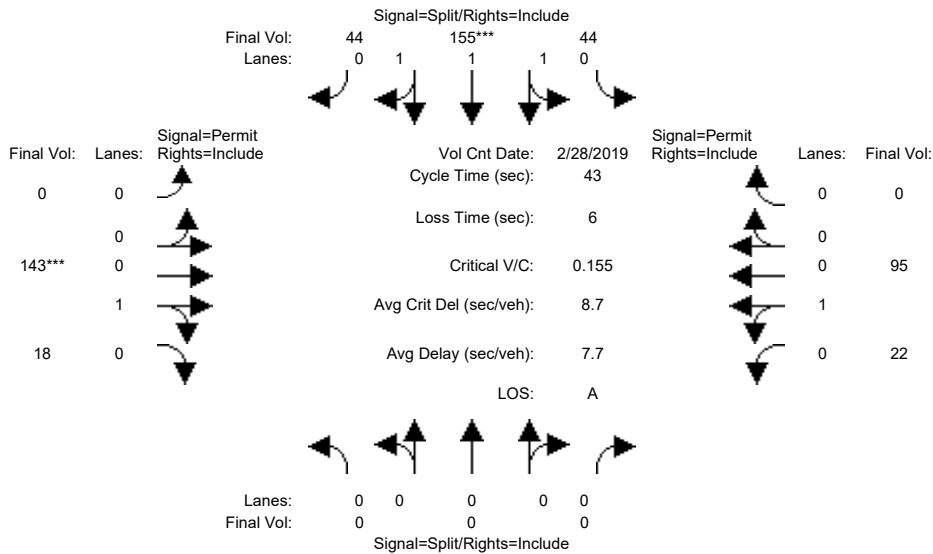
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.08	0.08	0.05	0.05	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	13.1	13.1	13.1	0.0	23.9	23.9	23.9	23.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.14	0.14	0.14	0.00	0.14	0.14	0.10	0.10	0.00
Delay/Veh:	0.0	0.0	0.0	10.9	10.9	10.9	0.0	4.7	4.7	4.6	4.6	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	10.9	10.9	10.9	0.0	4.7	4.7	4.6	4.6	0.0
LOS by Move:	A	A	A	B	B	B	A	A	A	A	A	A
HCM2k95thQ:	0	0	0	2	2	2	0	2	2	1	1	0

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #2: Second St & Virginia St



Street Name:	Second St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	10	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	0	0	0	41	145	43	0	119	17	22	76	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	41	145	43	0	119	17	22	76	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	3	10	1	0	24	1	0	19	0
Initial Fut:	0	0	0	44	155	44	0	143	18	22	95	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	44	155	44	0	143	18	22	95	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	44	155	44	0	143	18	22	95	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
Final Volume:	0	0	0	44	155	44	0	143	18	22	95	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	0.95	0.97	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Lanes:	0.00	0.00	0.00	0.55	1.90	0.55	0.00	0.89	0.11	0.19	0.81	0.00
Final Sat.:	0	0	0	996	3508	996	0	1599	201	338	1462	0

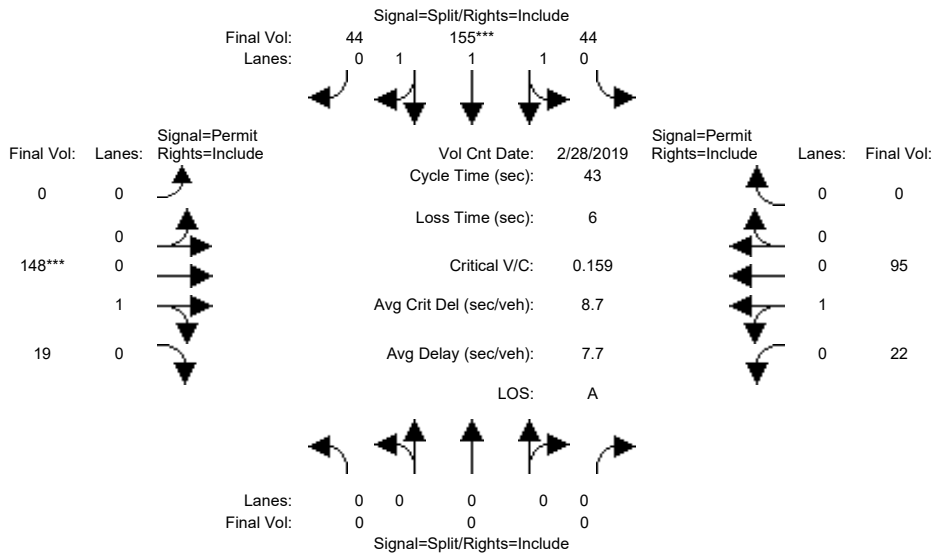
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.09	0.09	0.07	0.07	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	12.2	12.2	12.2	0.0	24.8	24.8	24.8	24.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.16	0.16	0.16	0.00	0.16	0.16	0.11	0.11	0.00
Delay/Veh:	0.0	0.0	0.0	11.6	11.6	11.6	0.0	4.3	4.3	4.2	4.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.6	11.6	11.6	0.0	4.3	4.3	4.2	4.2	0.0
LOS by Move:	A	A	A	B	B	B	A	A	A	A	A	A
HCM2k95thQ:	0	0	0	2	2	2	0	2	2	2	2	0

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #2: Second St & Virginia St



Street Name:	Second St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	10	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	0	0	0	41	145	43	0	119	17	22	76	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	41	145	43	0	119	17	22	76	0
Added Vol:	0	0	0	0	0	0	0	5	1	0	0	0
ATI:	0	0	0	3	10	1	0	24	1	0	19	0
Initial Fut:	0	0	0	44	155	44	0	148	19	22	95	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	44	155	44	0	148	19	22	95	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	44	155	44	0	148	19	22	95	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
Final Volume:	0	0	0	44	155	44	0	148	19	22	95	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	0.95	0.97	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Lanes:	0.00	0.00	0.00	0.55	1.90	0.55	0.00	0.89	0.11	0.19	0.81	0.00
Final Sat.:	0	0	0	996	3508	996	0	1595	205	338	1462	0

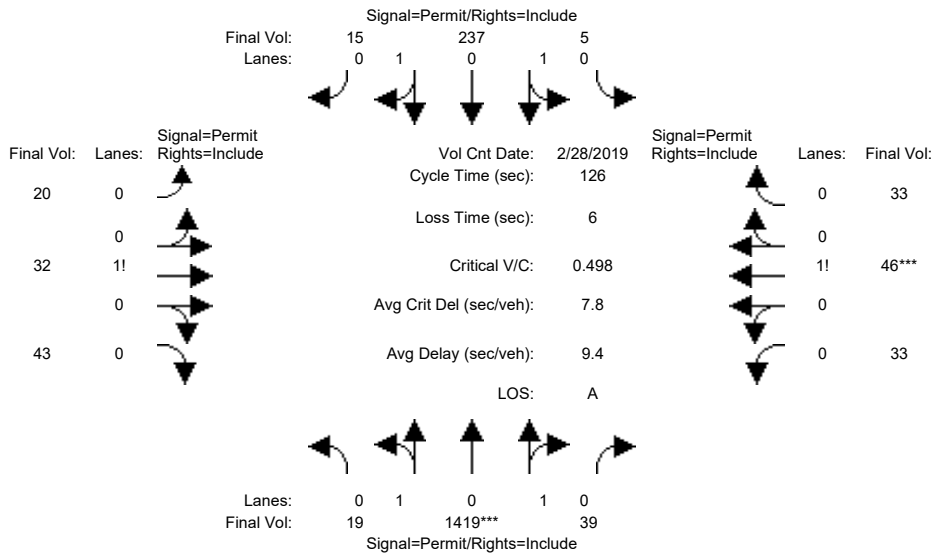
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.09	0.09	0.07	0.07	0.00
Crit Moves:				****			****					
Green Time:	0.0	0.0	0.0	11.9	11.9	11.9	0.0	25.1	25.1	25.1	25.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.16	0.16	0.16	0.00	0.16	0.16	0.11	0.11	0.00
Delay/Veh:	0.0	0.0	0.0	11.8	11.8	11.8	0.0	4.2	4.2	4.0	4.0	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	11.8	11.8	11.8	0.0	4.2	4.2	4.0	4.0	0.0
LOS by Move:	A	A	A	B	B	B	A	A	A	A	A	A
HCM2k95thQ:	0	0	0	2	2	2	0	2	2	2	2	0

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #3: First St & Martha St



Street Name:	First St						Martha St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	19	1419	39	5	237	15	20	32	43	33	46	33
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:	19	1419	39	5	237	15	20	32	43	33	46	33
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:	19	1419	39	5	237	15	20	32	43	33	46	33
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:	19	1419	39	5	237	15	20	32	43	33	46	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	1419	39	5	237	15	20	32	43	33	46	33
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
Final Volume:	19	1419	39	5	237	15	20	32	43	33	46	33

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	0.03	1.92	0.05	0.04	1.84	0.12	0.21	0.34	0.45	0.29	0.42	0.29
Final Sat.:	46	3459	95	70	3320	210	368	589	792	516	719	516

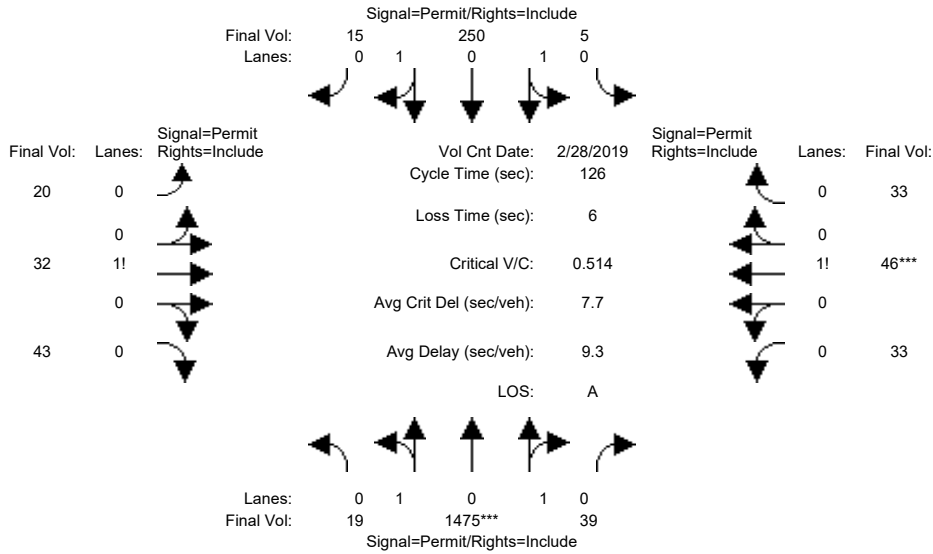
Capacity Analysis Module:												
Vol/Sat:	0.41	0.41	0.41	0.07	0.07	0.07	0.05	0.05	0.05	0.06	0.06	0.06
Crit Moves:	****									****		
Green Time:	103.8	104	103.8	103.8	104	103.8	16.2	16.2	16.2	16.2	16.2	16.2
Volume/Cap:	0.50	0.50	0.50	0.09	0.09	0.09	0.42	0.42	0.42	0.50	0.50	0.50
Delay/Veh:	3.9	3.9	3.9	2.2	2.2	2.2	56.3	56.3	56.3	58.8	58.8	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:	3.9	3.9	3.9	2.2	2.2	2.2	56.3	56.3	56.3	58.8	58.8	58.8
LOS by Move:	A	A	A	A	A	A	E	E	E	E	E	E
HCM2k95thQ:	16	16	16	2	2	2	8	8	8	10	10	10

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #3: First St & Martha St



Street Name:	First St						Martha St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	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:	>> Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM
Base Vol:	19 1419 39	5 237 15	20 32 43	33 46 33	
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:	19 1419 39	5 237 15	20 32 43	33 46 33	
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0	
ATI(Extrapo:	0 56 0	0 13 0	0 0 0	0 0 0	
Initial Fut:	19 1475 39	5 250 15	20 32 43	33 46 33	
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:	19 1475 39	5 250 15	20 32 43	33 46 33	
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	
Reduced Vol:	19 1475 39	5 250 15	20 32 43	33 46 33	
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:	19 1475 39	5 250 15	20 32 43	33 46 33	

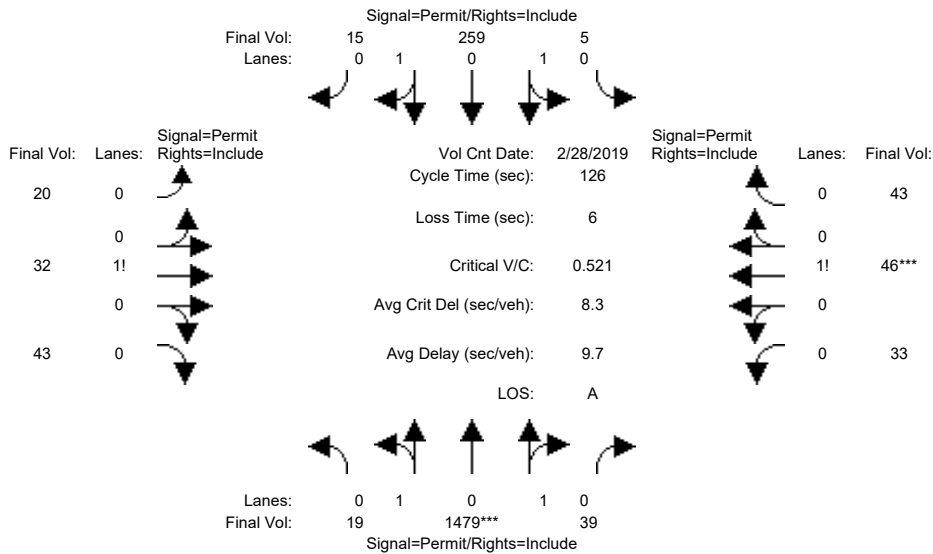
Saturation Flow Module:												
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900								
Adjustment:	0.95 0.95 0.95	0.95 0.95 0.95	0.92 0.92 0.92	0.92 0.92 0.92								
Lanes:	0.02 1.93 0.05	0.04 1.85 0.11	0.21 0.34 0.45	0.29 0.42 0.29								
Final Sat.:	45 3464 92	67 3333 200	368 589 792	516 719 516								

Capacity Analysis Module:												
Vol/Sat:	0.43 0.43 0.43	0.08 0.08 0.08	0.05 0.05 0.05	0.06 0.06 0.06								
Crit Moves:	****			****								
Green Time:	104.3 104 104.3	104.3 104 104.3	15.7 15.7 15.7	15.7 15.7 15.7								
Volume/Cap:	0.51 0.51 0.51	0.09 0.09 0.09	0.44 0.44 0.44	0.51 0.51 0.51								
Delay/Veh:	3.9 3.9 3.9	2.1 2.1 2.1	57.3 57.3 57.3	60.0 60.0 60.0								
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00								
AdjDel/Veh:	3.9 3.9 3.9	2.1 2.1 2.1	57.3 57.3 57.3	60.0 60.0 60.0								
LOS by Move:	A A A	A A A	E E E	E E E								
HCM2k95thQ:	17 17 17	2 2 2	8 8 8	10 10 10								

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA
 Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Project AM

Intersection #3: First St & Martha St



Street Name:	First St						Martha St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	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:	>>	Count	Date:	28 Feb 2019	<<	7:30 AM - 8:30 AM						
Base Vol:	19	1419	39	5	237	15	20	32	43	33	46	33
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:	19	1419	39	5	237	15	20	32	43	33	46	33
Added Vol:	0	4	0	0	9	0	0	0	0	0	0	10
ATI(Extrapo:	0	56	0	0	13	0	0	0	0	0	0	0
Initial Fut:	19	1479	39	5	259	15	20	32	43	33	46	43
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:	19	1479	39	5	259	15	20	32	43	33	46	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	1479	39	5	259	15	20	32	43	33	46	43
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:	19	1479	39	5	259	15	20	32	43	33	46	43

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	0.02	1.93	0.05	0.03	1.86	0.11	0.21	0.34	0.45	0.27	0.38	0.35
Final Sat.:	45	3464	91	65	3342	194	368	589	792	473	660	617

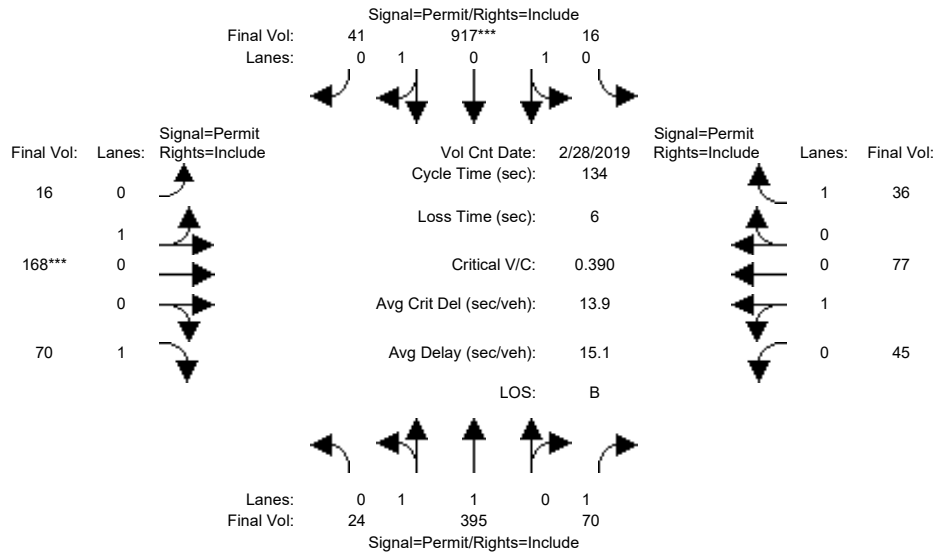
Capacity Analysis Module:												
Vol/Sat:	0.43	0.43	0.43	0.08	0.08	0.08	0.05	0.05	0.05	0.07	0.07	0.07
Crit Moves:	****						****					
Green Time:	103.2	103	103.2	103.2	103	103.2	16.8	16.8	16.8	16.8	16.8	16.8
Volume/Cap:	0.52	0.52	0.52	0.09	0.09	0.09	0.41	0.41	0.41	0.52	0.52	0.52
Delay/Veh:	4.3	4.3	4.3	2.3	2.3	2.3	55.2	55.2	55.2	58.9	58.9	58.9
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:	4.3	4.3	4.3	2.3	2.3	2.3	55.2	55.2	55.2	58.9	58.9	58.9
LOS by Move:	A	A	A	A	A	A	E	E	E	E	E	E
HCM2k95thQ:	17	17	17	3	3	3	8	8	8	10	10	10

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #1: First St & Virginia St



Street Name: First St Virginia St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	10	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: >> Count Date: 28 Feb 2019 << 5:00 PM - 6:00 PM												
Base Vol:	24	395	70	16	917	41	16	168	70	45	77	36
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:	24	395	70	16	917	41	16	168	70	45	77	36
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:	24	395	70	16	917	41	16	168	70	45	77	36
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:	24	395	70	16	917	41	16	168	70	45	77	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	395	70	16	917	41	16	168	70	45	77	36
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
Final Volume:	24	395	70	16	917	41	16	168	70	45	77	36

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.92	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	0.12	1.88	1.00	0.03	1.89	0.08	0.09	0.91	1.00	0.37	0.63	1.00
Final Sat.:	212	3488	1750	59	3389	152	157	1643	1750	664	1136	1750

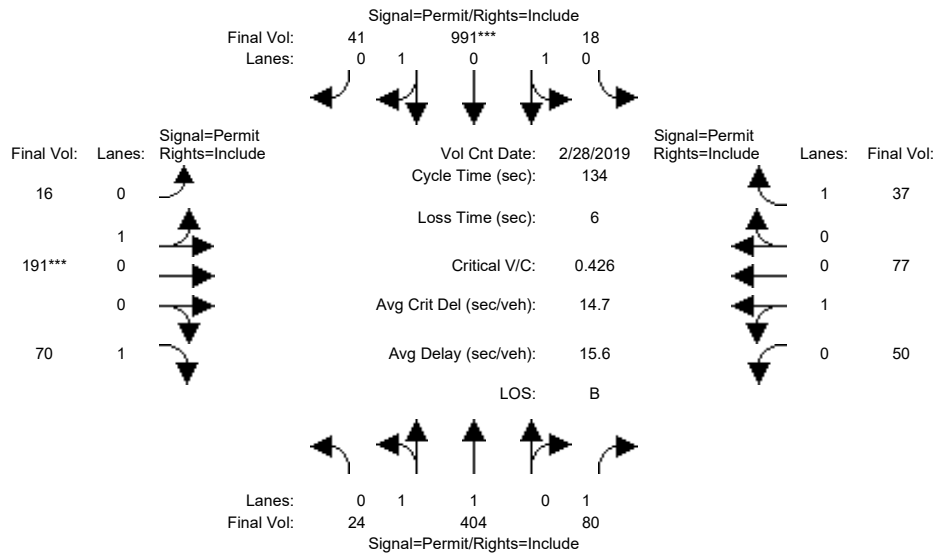
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.04	0.27	0.27	0.27	0.10	0.10	0.04	0.07	0.07	0.02
Crit Moves:				****			****					
Green Time:	92.9	92.9	92.9	92.9	92.9	92.9	35.1	35.1	35.1	35.1	35.1	35.1
Volume/Cap:	0.16	0.16	0.06	0.39	0.39	0.39	0.39	0.39	0.15	0.26	0.26	0.08
Delay/Veh:	7.1	7.1	6.6	8.7	8.7	8.7	41.2	41.2	38.2	39.4	39.4	37.3
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:	7.1	7.1	6.6	8.7	8.7	8.7	41.2	41.2	38.2	39.4	39.4	37.3
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2k95thQ:	6	6	2	16	16	16	13	13	5	8	8	2

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #1: First St & Virginia St



Street Name:	First St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	5:00 PM - 6:00 PM						
Base Vol:	24	395	70	16	917	41	16	168	70	45	77	36
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:	24	395	70	16	917	41	16	168	70	45	77	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	9	10	2	74	0	0	23	0	5	0	1
Initial Fut:	24	404	80	18	991	41	16	191	70	50	77	37
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:	24	404	80	18	991	41	16	191	70	50	77	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	404	80	18	991	41	16	191	70	50	77	37
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
Final Volume:	24	404	80	18	991	41	16	191	70	50	77	37

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.92	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	0.12	1.88	1.00	0.03	1.89	0.08	0.08	0.92	1.00	0.39	0.61	1.00
Final Sat.:	207	3492	1750	62	3398	141	139	1661	1750	709	1091	1750

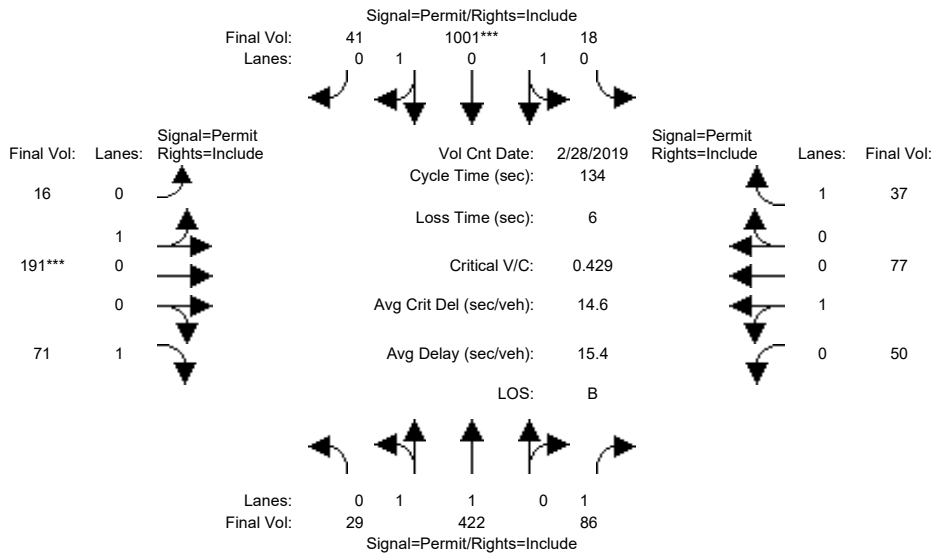
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.05	0.29	0.29	0.29	0.12	0.12	0.04	0.07	0.07	0.02
Crit Moves:	****						****					
Green Time:	91.8	91.8	91.8	91.8	91.8	91.8	36.2	36.2	36.2	36.2	36.2	36.2
Volume/Cap:	0.17	0.17	0.07	0.43	0.43	0.43	0.43	0.43	0.15	0.26	0.26	0.08
Delay/Veh:	7.5	7.5	7.0	9.5	9.5	9.5	40.9	40.9	37.3	38.7	38.7	36.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.5	7.5	7.0	9.5	9.5	9.5	40.9	40.9	37.3	38.7	38.7	36.5
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2k95thQ:	6	6	2	18	18	18	14	14	5	8	8	2

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #1: First St & Virginia St



Street Name:	First St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	5:00 PM - 6:00 PM						
Base Vol:	24	395	70	16	917	41	16	168	70	45	77	36
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:	24	395	70	16	917	41	16	168	70	45	77	36
Added Vol:	5	18	6	0	10	0	0	0	1	0	0	0
ATI:	0	9	10	2	74	0	0	23	0	5	0	1
Initial Fut:	29	422	86	18	1001	41	16	191	71	50	77	37
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:	29	422	86	18	1001	41	16	191	71	50	77	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	422	86	18	1001	41	16	191	71	50	77	37
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
Final Volume:	29	422	86	18	1001	41	16	191	71	50	77	37

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.98	0.92	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	0.13	1.87	1.00	0.03	1.89	0.08	0.08	0.92	1.00	0.39	0.61	1.00
Final Sat.:	238	3462	1750	61	3400	139	139	1661	1750	709	1091	1750

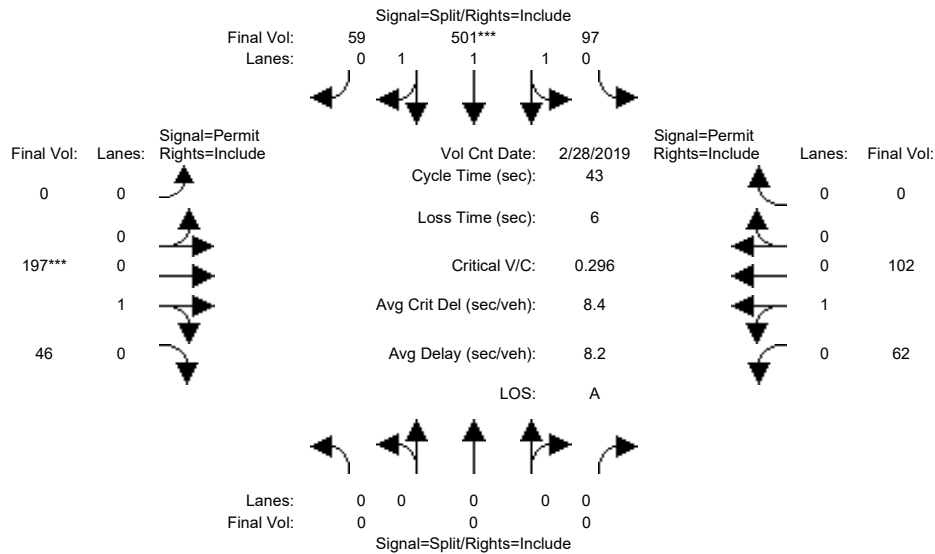
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.05	0.29	0.29	0.29	0.12	0.12	0.04	0.07	0.07	0.02
Crit Moves:					****			****				
Green Time:	92.0	92.0	92.0	92.0	92.0	92.0	36.0	36.0	36.0	36.0	36.0	36.0
Volume/Cap:	0.18	0.18	0.07	0.43	0.43	0.43	0.43	0.43	0.15	0.26	0.26	0.08
Delay/Veh:	7.5	7.5	6.9	9.4	9.4	9.4	41.1	41.1	37.5	38.9	38.9	36.7
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:	7.5	7.5	6.9	9.4	9.4	9.4	41.1	41.1	37.5	38.9	38.9	36.7
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2k95thQ:	7	7	3	18	18	18	14	14	5	8	8	2

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #2: Second St & Virginia St



Street Name:	Second St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	10	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	4:45 PM - 5:45 PM						
Base Vol:	0	0	0	97	501	59	0	197	46	62	102	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	97	501	59	0	197	46	62	102	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	97	501	59	0	197	46	62	102	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	97	501	59	0	197	46	62	102	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	97	501	59	0	197	46	62	102	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
Final Volume:	0	0	0	97	501	59	0	197	46	62	102	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	0.95	0.97	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Lanes:	0.00	0.00	0.00	0.45	2.28	0.27	0.00	0.81	0.19	0.38	0.62	0.00
Final Sat.:	0	0	0	812	4194	494	0	1459	341	680	1120	0

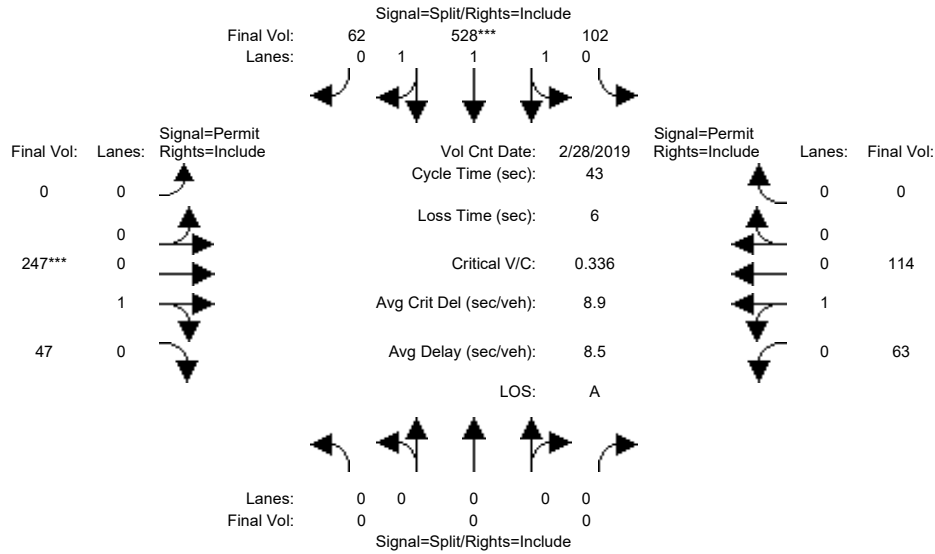
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.12	0.00	0.14	0.14	0.09	0.09	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	17.4	17.4	17.4	0.0	19.6	19.6	19.6	19.6	0.0
Volume/Cap:	0.00	0.00	0.00	0.30	0.30	0.30	0.00	0.30	0.30	0.20	0.20	0.00
Delay/Veh:	0.0	0.0	0.0	8.7	8.7	8.7	0.0	7.5	7.5	7.1	7.1	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	8.7	8.7	8.7	0.0	7.5	7.5	7.1	7.1	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	0	5	5	5	0	4	4	3	3	0

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #2: Second St & Virginia St



Street Name:	Second St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	10	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	4:45 PM - 5:45 PM						
Base Vol:	0	0	0	97	501	59	0	197	46	62	102	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	97	501	59	0	197	46	62	102	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	5	27	3	0	50	1	1	12	0
Initial Fut:	0	0	0	102	528	62	0	247	47	63	114	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	102	528	62	0	247	47	63	114	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	102	528	62	0	247	47	63	114	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
Final Volume:	0	0	0	102	528	62	0	247	47	63	114	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	0.95	0.97	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Lanes:	0.00	0.00	0.00	0.45	2.28	0.27	0.00	0.84	0.16	0.36	0.64	0.00
Final Sat.:	0	0	0	811	4196	493	0	1512	288	641	1159	0

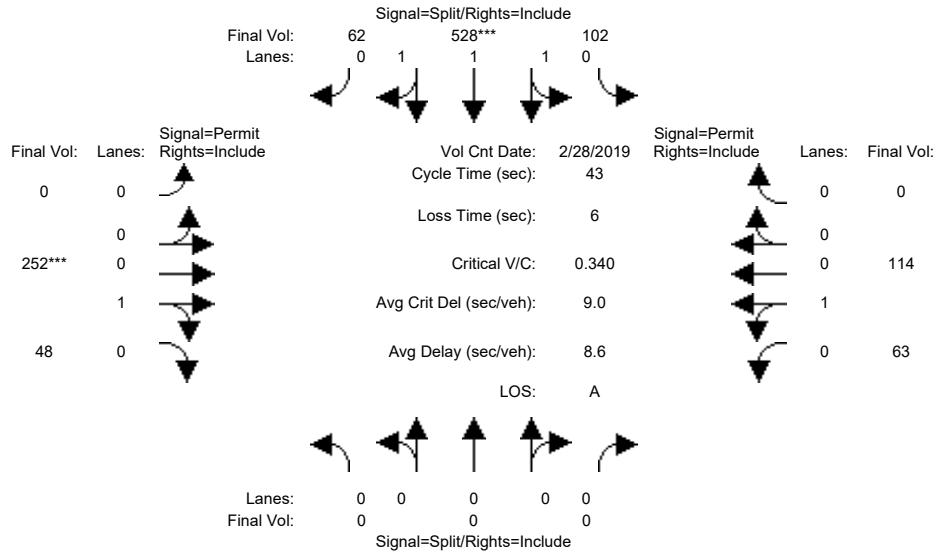
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.13	0.13	0.00	0.16	0.16	0.10	0.10	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	16.1	16.1	16.1	0.0	20.9	20.9	20.9	20.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.34	0.34	0.00	0.34	0.34	0.20	0.20	0.00
Delay/Veh:	0.0	0.0	0.0	9.7	9.7	9.7	0.0	7.0	7.0	6.4	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	9.7	9.7	9.7	0.0	7.0	7.0	6.4	6.4	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	0	5	5	5	0	5	5	3	3	0

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

First & Virginia Residential Mixed-Use Project
250 DU + 4,700 SF Retail
802 First Street, San Jose, CA

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

Intersection #2: Second St & Virginia St



Street Name:	Second St						Virginia St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	10	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	4:45 PM - 5:45 PM						
Base Vol:	0	0	0	97	501	59	0	197	46	62	102	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	97	501	59	0	197	46	62	102	0
Added Vol:	0	0	0	0	0	0	0	5	1	0	0	0
ATI:	0	0	0	5	27	3	0	50	1	1	12	0
Initial Fut:	0	0	0	102	528	62	0	252	48	63	114	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	102	528	62	0	252	48	63	114	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	102	528	62	0	252	48	63	114	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
Final Volume:	0	0	0	102	528	62	0	252	48	63	114	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	0.95	0.97	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Lanes:	0.00	0.00	0.00	0.45	2.28	0.27	0.00	0.84	0.16	0.36	0.64	0.00
Final Sat.:	0	0	0	811	4196	493	0	1512	288	641	1159	0

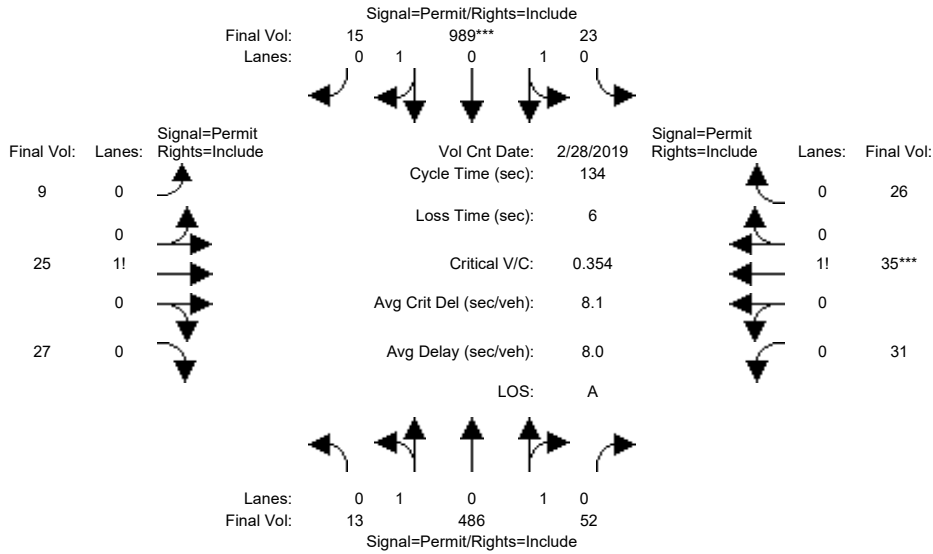
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.13	0.13	0.00	0.17	0.17	0.10	0.10	0.00
Crit Moves:					****			****				
Green Time:	0.0	0.0	0.0	15.9	15.9	15.9	0.0	21.1	21.1	21.1	21.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.34	0.34	0.34	0.00	0.34	0.34	0.20	0.20	0.00
Delay/Veh:	0.0	0.0	0.0	9.9	9.9	9.9	0.0	6.9	6.9	6.3	6.3	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	9.9	9.9	9.9	0.0	6.9	6.9	6.3	6.3	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	0	5	5	5	0	5	5	3	3	0

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

First & Virginia Residential Mixed-Use Project
250 DU + 4,700 SF Retail
802 First Street, San Jose, CA

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

Intersection #3: First St & Martha St



Street Name:	First St						Martha St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	4:45 PM	-	5:45 PM				
Base Vol:	13	486	52	23	989	15	9	25	27	31	35	26
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:	13	486	52	23	989	15	9	25	27	31	35	26
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:	13	486	52	23	989	15	9	25	27	31	35	26
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:	13	486	52	23	989	15	9	25	27	31	35	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	486	52	23	989	15	9	25	27	31	35	26
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
Final Volume:	13	486	52	23	989	15	9	25	27	31	35	26

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	0.05	1.76	0.19	0.04	1.93	0.03	0.15	0.41	0.44	0.34	0.38	0.28
Final Sat.:	85	3175	340	81	3467	53	258	717	775	590	666	495

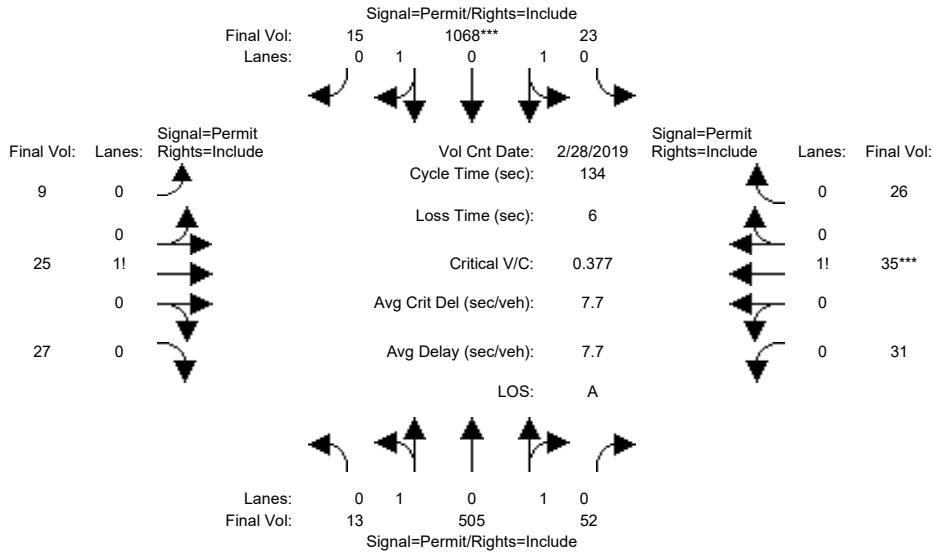
Capacity Analysis Module:													
Vol/Sat:	0.15	0.15	0.15	0.29	0.29	0.29	0.03	0.03	0.03	0.05	0.05	0.05	
Crit Moves:							****						
Green Time:	108.1	108	108.1	108.1	108	108.1	19.9	19.9	19.9	19.9	19.9	19.9	
Volume/Cap:	0.19	0.19	0.19	0.35	0.35	0.35	0.23	0.23	0.23	0.35	0.35	0.35	
Delay/Veh:	3.1	3.1	3.1	3.8	3.8	3.8	52.4	52.4	52.4	55.0	55.0	55.0	
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:	3.1	3.1	3.1	3.8	3.8	3.8	52.4	52.4	52.4	55.0	55.0	55.0	
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D	
HCM2k95thQ:	6	6	6	11	11	11	5	5	5	8	8	8	

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #3: First St & Martha St



Street Name:	First St						Martha St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	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:	>>	Count	Date:	28 Feb 2019	<<	4:45 PM	- 5:45 PM					
Base Vol:	13	486	52	23	989	15	9	25	27	31	35	26
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:	13	486	52	23	989	15	9	25	27	31	35	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI(Extrapo:	0	19	0	0	79	0	0	0	0	0	0	0
Initial Fut:	13	505	52	23	1068	15	9	25	27	31	35	26
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:	13	505	52	23	1068	15	9	25	27	31	35	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	505	52	23	1068	15	9	25	27	31	35	26
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
Final Volume:	13	505	52	23	1068	15	9	25	27	31	35	26

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	0.05	1.77	0.18	0.04	1.93	0.03	0.15	0.41	0.44	0.34	0.38	0.28
Final Sat.:	82	3189	328	75	3476	49	258	717	775	590	666	495

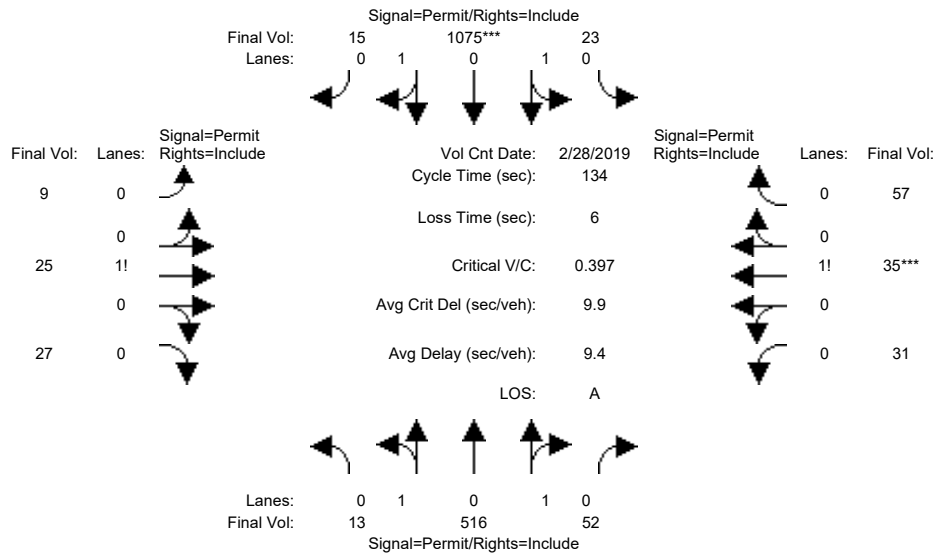
Capacity Analysis Module:													
Vol/Sat:	0.16	0.16	0.16	0.31	0.31	0.31	0.03	0.03	0.03	0.05	0.05	0.05	
Crit Moves:							****						
Green Time:	109.3	109	109.3	109.3	109	109.3	18.7	18.7	18.7	18.7	18.7	18.7	
Volume/Cap:	0.19	0.19	0.19	0.38	0.38	0.38	0.25	0.25	0.25	0.38	0.38	0.38	
Delay/Veh:	2.9	2.9	2.9	3.7	3.7	3.7	53.8	53.8	53.8	56.7	56.7	56.7	
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:	2.9	2.9	2.9	3.7	3.7	3.7	53.8	53.8	53.8	56.7	56.7	56.7	
LOS by Move:	A	A	A	A	A	A	D	D	D	E	E	E	
HCM2k95thQ:	6	6	6	12	12	12	6	6	6	8	8	8	

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

First & Virginia Residential Mixed-Use Project
 250 DU + 4,700 SF Retail
 802 First Street, San Jose, CA

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

Intersection #3: First St & Martha St



Street Name:	First St						Martha St					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Feb 2019	<<	4:45 PM - 5:45 PM						
Base Vol:	13	486	52	23	989	15	9	25	27	31	35	26
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:	13	486	52	23	989	15	9	25	27	31	35	26
Added Vol:	0	11	0	0	7	0	0	0	0	0	0	31
ATI(Extrapo:	0	19	0	0	79	0	0	0	0	0	0	0
Initial Fut:	13	516	52	23	1075	15	9	25	27	31	35	57
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:	13	516	52	23	1075	15	9	25	27	31	35	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	516	52	23	1075	15	9	25	27	31	35	57
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
Final Volume:	13	516	52	23	1075	15	9	25	27	31	35	57

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	0.04	1.78	0.18	0.04	1.93	0.03	0.15	0.41	0.44	0.25	0.28	0.47
Final Sat.:	81	3197	322	74	3477	49	258	717	775	441	498	811

Capacity Analysis Module:													
Vol/Sat:	0.16	0.16	0.16	0.31	0.31	0.31	0.03	0.03	0.03	0.07	0.07	0.07	
Crit Moves:							****						
Green Time:	104.3	104	104.3	104.3	104	104.3	23.7	23.7	23.7	23.7	23.7	23.7	
Volume/Cap:	0.21	0.21	0.21	0.40	0.40	0.40	0.20	0.20	0.20	0.40	0.40	0.40	
Delay/Veh:	4.1	4.1	4.1	5.2	5.2	5.2	48.4	48.4	48.4	52.6	52.6	52.6	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	4.1	4.1	4.1	5.2	5.2	5.2	48.4	48.4	48.4	52.6	52.6	52.6	
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D	
HCM2k95thQ:	7	7	7	14	14	14	5	5	5	10	10	10	

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