

## **Appendix H: Transportation Impact Analysis**



HEXAGON TRANSPORTATION CONSULTANTS, INC.

# Blossom Hill Station Transit Oriented Development

## Transportation Analysis

Prepared for:

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## Executive Summary

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This report presents the results of the transportation analysis conducted for a proposed transit-oriented development (TOD) at 605 Blossom Hill Road in San Jose, California. The 7.42-acre project site, located between Canoas Creek and the SR 85 southbound off-ramp, is currently developed with a surface parking lot, VTA bus stop, and VTA light rail transit (LRT) station.

Pursuant to the housing and transit-first goals for the City of San Jose, the Blossom Hill Station TOD project is designed to maximize residential density and promote diversity within close proximity to public transit. The project proposes to remove approximately half of the existing surface parking lot and associated landscaping along Blossom Hill Road and construct a new residential mixed-use building (Building A) and a new affordable residential building (Building B). Building A would be six stories tall and would include up to 239 market rate residential units and up to 22,595 square feet (s.f.) of retail space. Building B would contain 89 affordable residential units. Thus, this traffic analysis evaluates a maximum project size of up to 328 residential units and up to 22,595 s.f. of retail space. Note that although up to 22,595 s.f. of retail space was analyzed, the current project is proposing 13,590 s.f. of retail space. Therefore, this transportation study presents a conservative analysis.

The existing on-site bus stop would be relocated to Blossom Hill Road. The project would retain the LRT station and retain but reconfigure 212 VTA parking spaces at the northern half of the project site. The project would also construct a new bicycle/pedestrian shared-use path along the east side of Canoas Creek. Vehicular access to the project site would continue to be provided via a signalized full-access driveway on Blossom Hill Road, though some minor modifications are being proposed including signal modifications, reducing the width of the driveway from 4 lanes (2 inbound/2 outbound) to 3 lanes (1 inbound/2 outbound), realigning the crosswalk on the west leg of the intersection, adding a crosswalk to the east leg of the intersection, and adding current ADA compliant curb ramps with truncated domes. A detailed traffic signal design is being prepared concurrently with this traffic study.

This study was conducted for the purpose of identifying the potential transportation impacts 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* (April 2018). Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the project includes a California Environmental Quality Act (CEQA) level Transportation Analysis (TA) and a Local Transportation Analysis (LTA). 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 six signalized intersections in the vicinity of the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access.

The effects of the project on freeway segments were evaluated in accordance with the methodologies described in the Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis*



*Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

## CEQA Transportation Analysis

The project vehicle miles traveled (VMT) estimated by the City's VMT Evaluation Tool is 13.37 per capita. The project VMT, therefore, exceeds the threshold of 10.12 VMT per capita. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold (such as the project study area) are referred to as being in "high-VMT areas", and 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.

### Project Impact

Since the VMT generated by the project would exceed the threshold of significance for residential uses in the area, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

### Project Mitigation

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement pedestrian network improvements and increase transit accessibility (Tier 2 strategies), as well as implement a Transportation Demand Management (TDM) Plan (various Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies, as described in detail in Chapter 3, are recommended to mitigate the significant VMT impact:

1. **Pedestrian Network Improvements (Tier 2)**
2. **Increase Transit Accessibility (Tier 2)**
3. **School Pool Program (Tier 4)**
4. **Subsidized Transit Program (Tier 4)**
5. **Voluntary Travel Behavior Change Program (Tier 4)**
6. **On-Site TDM Administration and Services (Tier 4)**

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 11.88 per capita. This represents a reduction of 20% compared to the area VMT and is the maximum reduction possible. Since the project VMT would remain above the City's threshold of 10.12 VMT per capita with mitigation, the VMT impact is considered unmitigable. Therefore, the project would result in a significant and unavoidable VMT impact.

To address the unmitigable project impact, City Council would need to adopt a statement of overriding considerations. The override would apply to the VMT that cannot be mitigated ( $11.88 - 10.12 = 1.76$  VMT) and would be in the form of either the construction or funding of multi-modal improvements. The base override fee for residential projects was established in March of 2018 when Council Policy 5-1 was originally adopted and is \$2,300 per VMT not mitigated per resident. According to the City of San Jose Land Use Assumptions for the 2020 General Plan Four-Year Review, there are approximately 3 residents per household within the City. The override fee is subject to an annual escalation on January 1<sup>st</sup> in line with the Engineering News-Record Construction Cost Index (ENR CCI) for San Francisco. The 2019 and 2020 ENR CCIs for San Francisco are +0.8% and +5.7%, respectively. Thus, based on a 2019 override fee of \$2,318, the 2020 override fee amounts to \$2,450.

Note that since the affordable housing component of the project would meet all the screening criteria outlined in the City's *Transportation Analysis Handbook* for "Restricted Affordable Residential Projects or Components", the affordable housing component of the project (89 affordable apartment units) is exempted from the override VMT fee calculation.

Based on the current override fee the project, which includes up to 239 market rate residential units, would be required to pay a VMT impact fee of \$3,091,704 as follows:

$$\text{VMT Impact Fee: } \$2,450 \times 1.76 \text{ VMT} \times (239 \text{ units} \times 3 \text{ residents per unit}) = \$3,091,704$$

City staff have indicated that the project will be required to implement improvements that are equal to the total VMT impact fee amount. A final list of improvements and associated cost estimates will be prepared as part of the conditions of approval for the project.

## Local Transportation Analysis

### Project Trip Generation

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, the project would generate 1,768 new daily vehicle trips, with 102 new trips occurring during the AM peak hour and 139 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the *ITE Trip Generation Manual*, the project would produce 32 new inbound and 70 new outbound trips during the AM peak hour, and 80 new inbound and 59 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

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

#### Recommendations

- Install an all-way stop at the internal four-way intersection.
- Work with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.
- Implement a shared parking agreement between the market rate developer and the affordable housing developer prior to issuing the building permits.
- Assign all residential tandem parking stalls to individual residential units.
- Provide a larger radius at the bottom of the ramp, widen the ramp, and/or reorient the ramp to better serve inbound (right turning) vehicles.
- Install convex mirrors at all the blind corners of the parking garage to eliminate blind spots for vehicles making turns on both parking levels of the garage.
- Provide a gate or removable bollards at the EVA driveway to prohibit unauthorized vehicular access.

- Work with the VTA to identify an adequate temporary parking area for LRT users during the project construction phase.
- Coordinate with the Santa Clara VTA to determine the exact location and design features of each bus stop on Blossom Hill Road, including the proposed duck-outs and bus pads.
- Coordinate with the Santa Clara VTA and Caltrans to determine if a signal modification is needed at the SR 85 SB Off-Ramp/Blossom Hill Road intersection to implement the proposed curb line work associated with the duck-out design along the project frontage on Blossom Hill Road.
- Provide adequate vehicular parking for the retail component of the project in accordance with the City of San Jose's Zoning Code.
- Coordinate with the Santa Clara VTA to determine whether 212 parking spaces would be adequate to serve the anticipated VTA parking demand.
- Provide adequate motorcycle parking in accordance with the City of San Jose's Zoning Code.

# 1. Introduction

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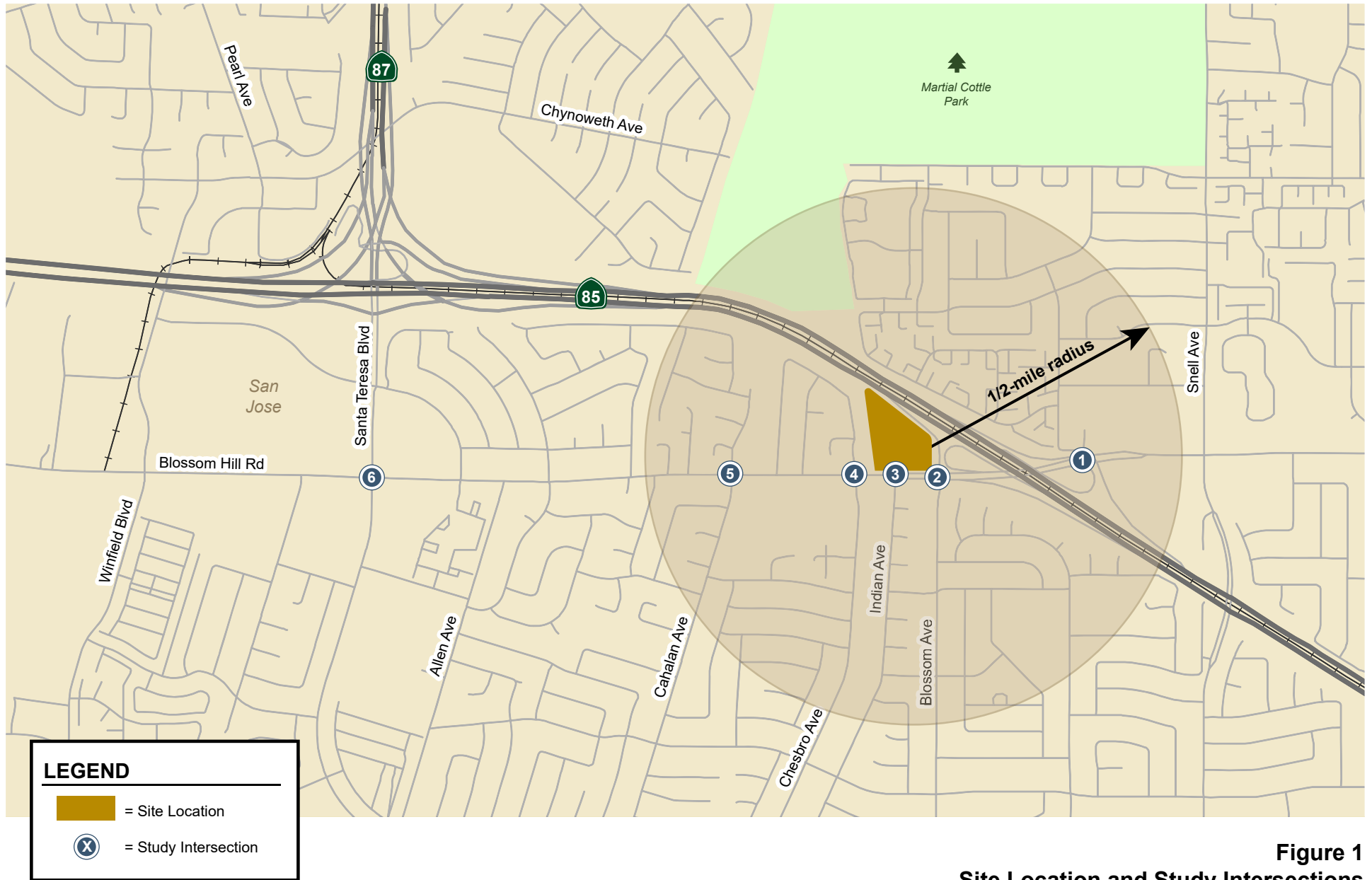
This report presents the results of the transportation analysis conducted for a proposed transit-oriented development (TOD) at 605 Blossom Hill Road in San Jose, California (see Figure 1). The 7.42-acre project site, located between Canoas Creek and the SR 85 southbound off-ramp, is currently developed with a surface parking lot, Santa Clara Valley Transportation Authority (VTA) bus stop, and VTA light rail transit (LRT) station.

This study was conducted for the purpose of identifying the potential transportation impacts 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* (April 2018). Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the project includes a California Environmental Quality Act (CEQA) level Transportation Analysis (TA) and a Local Transportation Analysis (LTA). The effects of the project on freeway segments were evaluated in accordance with the methodologies described in the VTA's *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

## Project Description

Pursuant to the housing and transit-first goals for the City of San Jose, the Blossom Hill Station TOD project is designed to maximize residential density and promote diversity within close proximity to public transit. The project proposes to remove approximately half of the existing surface parking lot and associated landscaping along Blossom Hill Road and construct a new residential mixed-use building (Building A) and a new affordable residential building (Building B). Building A would be six stories tall and would include up to 239 market rate residential units and up to 22,595 square feet (s.f.) of retail space. Building B would contain 89 affordable residential units. Thus, this traffic analysis evaluates a maximum project size of up to 328 residential units and up to 22,595 s.f. of retail space. Note that although up to 22,595 s.f. of retail space was analyzed, the current project is proposing 13,590 s.f. of retail space. Therefore, this transportation study presents a conservative analysis.

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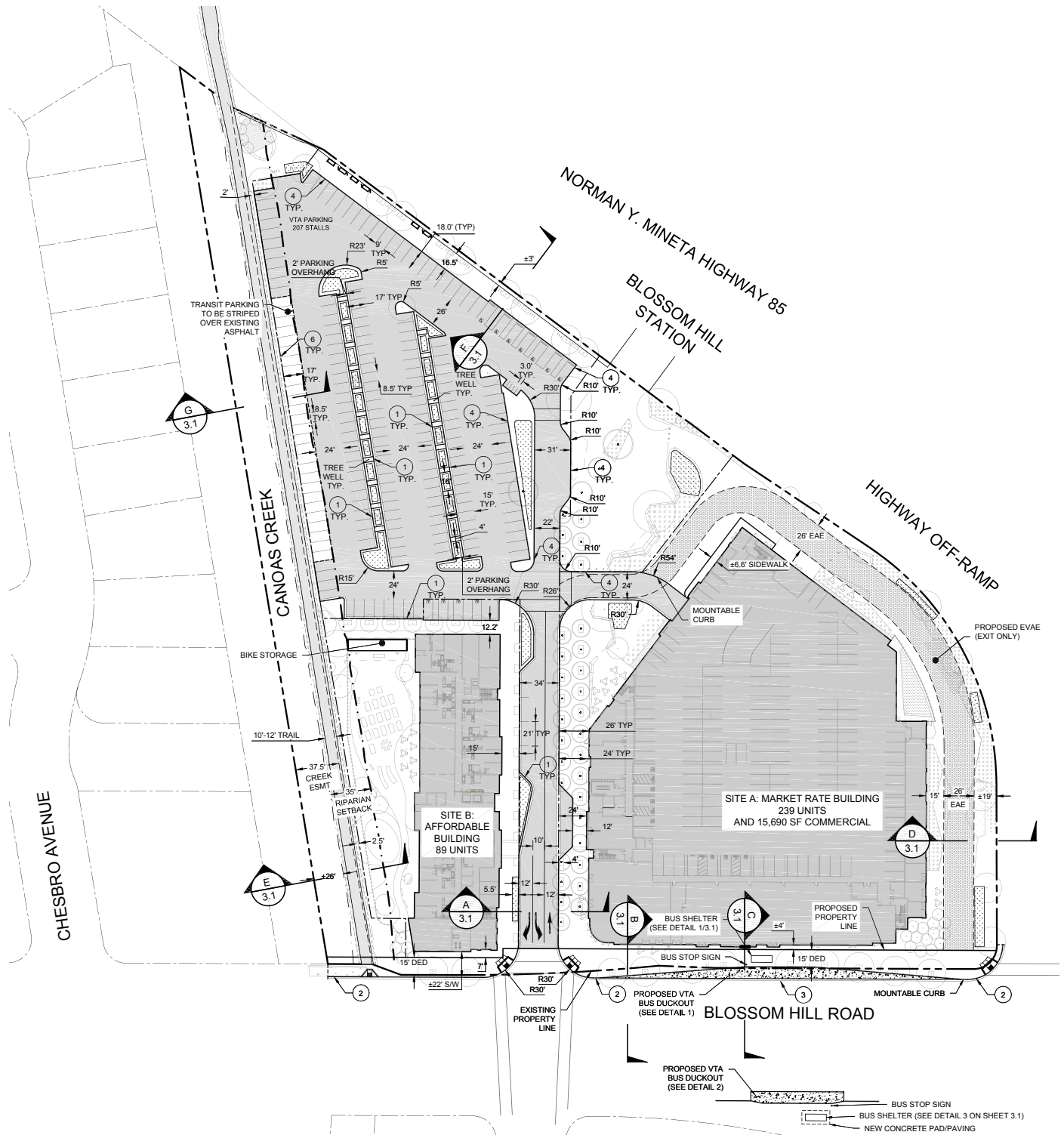


Figure 2  
Site Plan



## 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 the 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. All new projects are required to analyze transportation impacts using the VMT metric and conform to Policy 5-1. The new Transportation Analysis Policy 5-1 took effect on March 29, 2018. The Policy 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);
- 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);
- 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 automobile 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).

## Blossom Hill Road/Cahalan Avenue Urban Village

The project site is located within the future Blossom Hill Road/Cahalan Avenue Urban Village boundaries, according to the Envision San Jose 2040 General Plan Planned Growth Areas Diagram. The Urban Village is currently in the planning stage and includes the Blossom Hill LRT station and adjacent retail uses on the north side of Blossom Hill Road, as well as the shopping center to the south bounded by Blossom Hill Road on the north, Chesbro Avenue on the east, Chemeketa Drive on the south, and Cahalan Avenue on the west.

Urban Villages are walkable, bicycle-friendly, transit-oriented, mixed-use settings that provide both housing and jobs, thus supporting the General Plan’s environmental goals. The Urban Village designation is applied within Urban Village areas to accommodate higher density housing growth in combination with a significant amount of job growth. Projects that are located within an Urban Village boundary are eligible for a 20% parking reduction. The Urban Village strategy fosters:

- Engagement of village area residents in the urban village planning process;
- Mixed residential and employment activities that are attractive to an innovative workforce;
- Revitalization of underutilized properties that have access to existing infrastructure;
- Densities that support transit use, bicycling, and walking; and
- High-quality urban design.

Most sites located within an Urban Village Area Boundary, planned for full redevelopment in a later Plan Horizon, have a *Neighborhood Community Commercial (NCC)* land use designation (such as the project site) or other non-residential designation, so that new residential development is planned only to occur when the City commences the identified Plan Horizon for that Urban Village area. Prior to implementation of the Urban Village Plan the underlying General Plan designation determines the appropriate use and application of General Plan land use policies for the site. Urban Village Plans provide more detailed information related to the allowed uses, density and FAR for particular sites within each Urban Village area and may also recommend that some sites within the Urban Village area be changed to another Land Use designation in order to better represent the uses identified within the Urban Village Plan.

Although the proposed project is in a non-approved Urban Village, it consists of high-density residential development, including an affordable housing component (27% affordable), and is a mixed-use project (includes a retail component). According to Implementation Policy 5.12 (IP-5.12), residential projects in a non-approved Urban Village can only develop on sites with a commercial land use designation (such as the project site’s current *NCC* designation) if they apply as a mixed-use development under the category of Signature Projects or are 100% affordable housing and comply with Policy IP-5.12 of the General Plan.

The project is applying for a special use permit under the Signature Project category. Therefore, although the Blossom Hill Road and Cahalan Avenue Urban Village Plan has not yet been approved, the proposed residential mixed-use development would be allowed to occur under the current *NCC* land use designation.

## 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, industrial, and retail projects with local traffic. The tool calculates 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. For non-residential or non-office projects, very large projects or projects that can potentially shift travel patterns, the City's Travel Demand Forecasting Model can be used to determine project VMT.

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. 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 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 a less-than-significant VMT impact based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis but are typically required to provide a Local Transportation Analysis (LTA) to identify potential operational issues that may arise due to the project.

The City's screening criteria for CEQA transportation analysis for Residential Projects and Local-Serving Retail projects are described below.

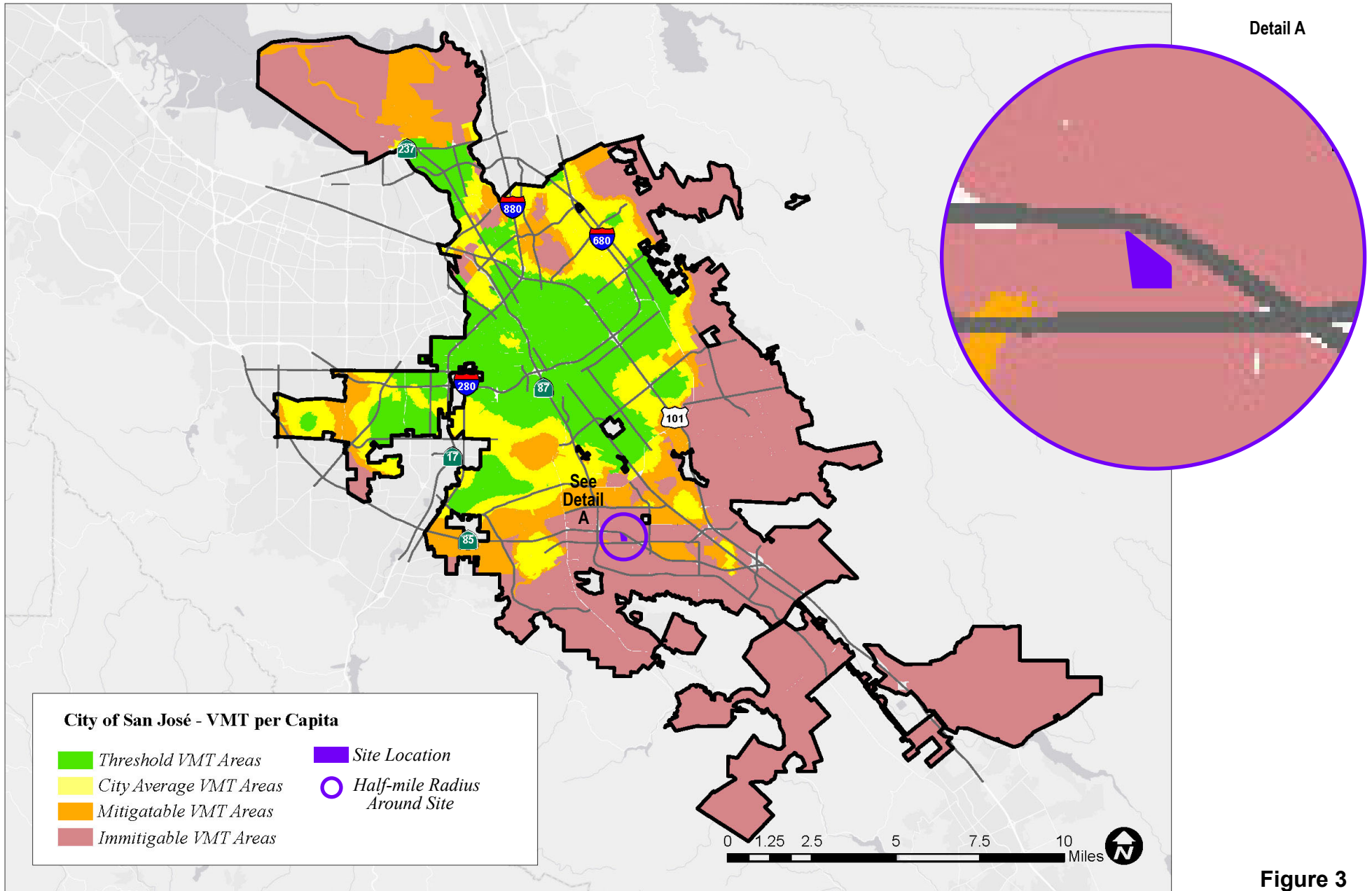


Figure 3  
VMT Heat Map for Residents in San Jose

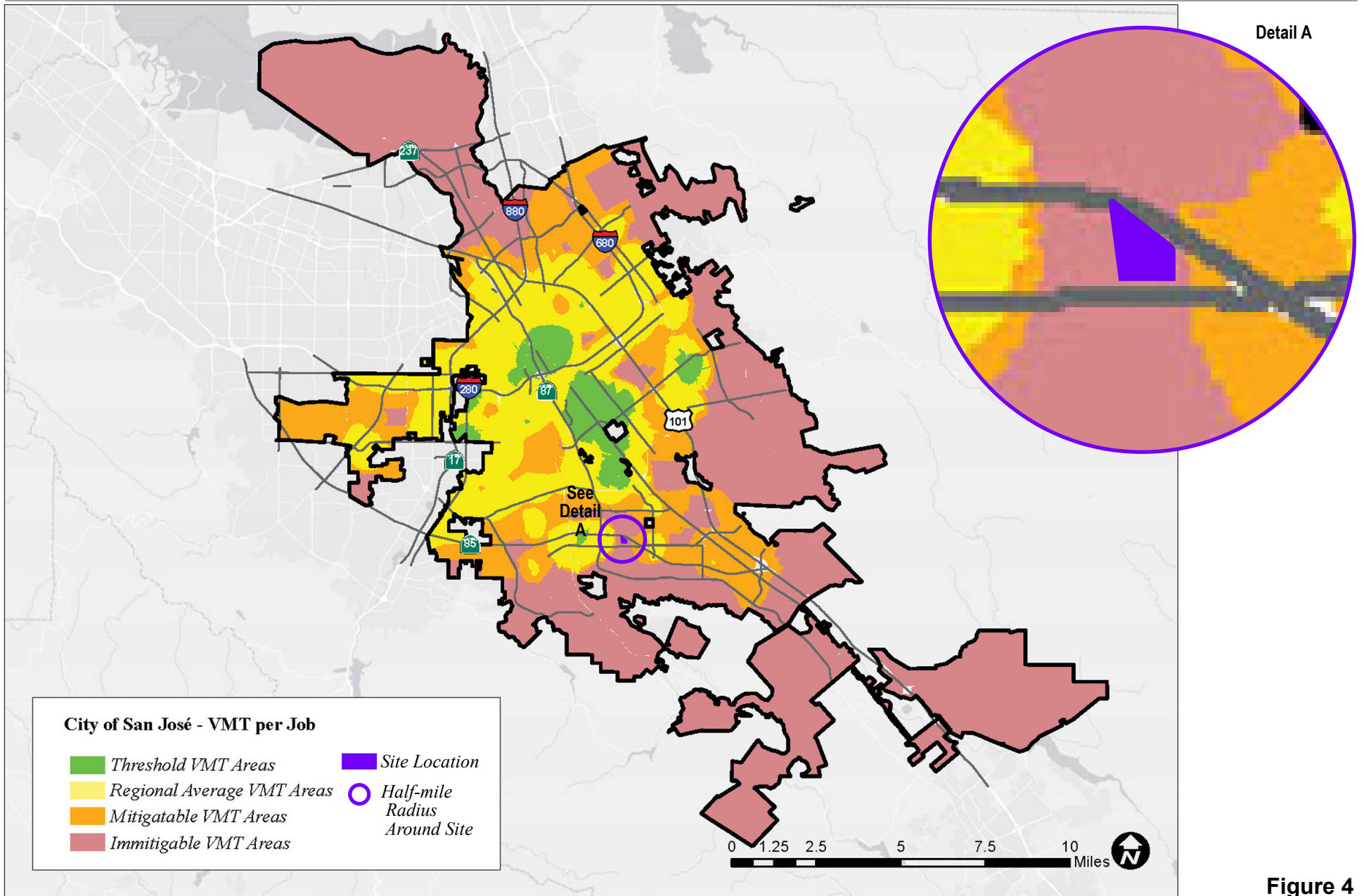


Figure 4  
VMT Heat Map for Employees in San Jose



### **Screening Criteria for Residential Projects**

1. **Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San Jose 2040 General Plan; and
2. **High-Quality Transit:** Located within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor; and
3. **Low VMT Areas:** Located in an area in which the per-capita VMT is less than or equal to the CEQA significance threshold for the land use; and
4. **Transit-Supporting Project Density:**
  - Minimum of 35 units per acre for residential projects or components;
  - If located in a Planned Growth Area with a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; and
5. **Parking:**
  - No more than the minimum number of parking spaces required;
  - If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or “unbundled”, the number of parking spaces can be up to the zoned minimum; and
6. **Active Transportation:** Not negatively impact transit, bike or pedestrian infrastructure.

The residential component of the project would meet all but criterion 3 above as follows:

- Located within the future Blossom Hill Road/Cahalan Avenue Urban Village (Planned Growth Area) = Criterion 1 met;
- Located within ½ mile of high-quality transit (Blossom Hill LRT station) = Criterion 2 met;
- Located in an area in which the per-capita VMT is greater than the CEQA significance threshold (see Figure 8: VMT Evaluation Tool Summary Report) = Criterion 3 not met;
- Residential density of 44 DU/AC (328 DU / 7.42 AC = 44 DU/AC) = Criterion 4 met;
- The project would provide the minimum amount of parking required = Criterion 5 met; and
- The project would not negatively impact transit, bike or pedestrian infrastructure = Criterion 6 met.

Although the proposed project consists of a high-density residential transit-oriented development and is located within a future Urban Village (i.e., planned growth area), it does not meet all the screening criteria for Residential Projects because the project site is located in a high VMT area according to the City’s General Plan (see Criterion 3). Therefore, a detailed CEQA transportation analysis is required.

### **Screening Criteria for Local-Serving Retail**

1. 100,000 square feet of total gross floor area or less without drive-through operations.

The retail component of the project, which consists of 22,595 s.f. of retail space and no drive-through, meets the screening criteria set forth in the City’s *Transportation Analysis Handbook*.

## **Local Transportation Analysis Scope**

The Local Transportation Analysis (LTA) supplements the VMT analysis by identifying potential adverse operational effects that may arise due to a new development, as well as evaluating the effects of a new development on site access, circulation, and other safety-related elements in the project study area.

As part of the LTA, a project is typically required to conduct an analysis of intersection operations if the project is expected to add 10 or more vehicle trips per hour per lane to a 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*, the LTA comprises an analysis of AM and PM peak hour traffic conditions for six signalized intersections. Signalized intersections that do not meet all the criteria may be added to the list of study intersections at the City's discretion. The nearby freeway ramps also were evaluated for potential operational issues.

### Study Intersections:

1. SR 85 NB Off-Ramp and Blossom Hill Road (E) \*
2. SR 85 SB Off-Ramp and Blossom Hill Road (W) \*
3. Indian Avenue and Blossom Hill Road
4. Chesbro Avenue and Blossom Hill Road
5. Cahalan Avenue and Blossom Hill Road
6. Santa Teresa Boulevard and Blossom Hill Road \*

\* Denotes a CMP intersection

### Study Freeway Ramps:

1. SR 85 Northbound Ramps at Blossom Hill Road
2. SR 85 Southbound Ramps at Blossom Hill Road

Traffic conditions at the study intersections and freeway ramps 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 the City of San Jose, the 2018 CMP Annual Monitoring Report, and new manual turning-movement counts conducted in August of 2019 (prior to the COVID-19 pandemic conditions). The new count data are contained in Appendix A and have been reviewed and approved by City of San Jose Department of Transportation staff for use in this traffic study. As required by the VTA CMP, the PM peak hour traffic volumes at the three CMP study intersections were obtained from the latest version of the CMP Annual Monitoring Report.
- **Background Conditions.** Background traffic volumes are typically estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments is provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). However, City staff have indicated that ATI is not available for the study intersections because there are no approved projects in the study area. Thus, background conditions presented in this traffic study are identical to existing conditions. Accordingly, existing/background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project.
- **Project Conditions.** Project conditions reflect projected traffic volumes on the planned roadway network after completion of the project. Project traffic volumes were estimated by adding to existing/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 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 regional average for general employment developments and 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 daily VMT per capita. This equates to a significant impact threshold of 10.12 daily VMT per capita.

Projects that trigger a significant VMT impact can implement 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, new traffic counts, 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

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

Project Types	Significance Criteria	Current Level	Threshold
<b>Residential Uses</b>	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
<b>General Employment Uses</b>	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
<b>Industrial Employment Uses</b>	Project VMT per employee exceeds existing regional average VMT per employee.	14.37 VMT per employee (Regional Average)	14.37 VMT per employee
<b>Retail / Hotel / School Uses</b>	Net increase in existing regional total VMT.	Regional Total VMT	Net Increase
<b>Public / Quasi-Public Uses</b>	In accordance with most appropriate type(s) as determined by Public Works Director.	Appropriate levels listed above	Appropriate thresholds listed above
<b>Mixed-Uses</b>	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
<b>Change of Use / Additions to Existing Development</b>	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
<b>Area Plans</b>	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 Standards

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).

### CMP Signalized Intersections

Since TRAFFIX is the designated level of service methodology for the CMP and the City of San Jose, the three CMP study intersections were not analyzed separately, but rather are among the signalized

intersections analyzed using TRAFFIX. The only difference between the City of San Jose and CMP analyses is that the CMP level of service standard for signalized intersections is LOS E or better.

### 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. For the purpose of this analysis, a substantial number of trips equates to 10 trips per lane. 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

$\lambda$  = 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.

### Freeway Segment Analysis Methodology

According to CMP guidelines, an analysis of freeway segment levels of service is only required if a project is estimated to add trips to a freeway segment equal to or greater than one percent of the capacity of that segment. Since the number of project trips added to the freeways in the area is estimated to be below the one percent threshold, a detailed analysis of freeway segment levels of service was not necessary. A simple freeway segment capacity evaluation to substantiate this determination is presented below in Table 3.

**Table 3**  
**Freeway Segment Capacity Evaluation**

Freeway	Segment	Direction	Peak Hour	Mixed-Flow Lanes Capacity (vph) <sup>1</sup>	1% of Mixed-Flow Capacity	HOV Lane Capacity (vph) <sup>1</sup>	1% of HOV Capacity	Mixed-Flow Lanes Project Trips	HOV Lane Project Trips	1% or More of Capacity?
SR 85	Cottle Rd to Blossom Hill Rd	NB	AM	4400	44	1800	18	2	0	NO
			PM	4400	44	1800	18	5	1	NO
SR 85	Blossom Hill Rd to SR 87	NB	AM	4400	44	1800	18	23	7	NO
			PM	4400	44	1800	18	14	4	NO
SR 85	SR 87 to Almaden Expwy	NB	AM	4400	44	1800	18	10	3	NO
			PM	4400	44	1800	18	6	2	NO
SR 85	Almaden Expwy to SR 87	SB	AM	4400	44	1800	18	4	1	NO
			PM	4400	44	1800	18	10	3	NO
SR 85	SR 87 to Blossom Hill Rd	SB	AM	4400	44	1800	18	8	2	NO
			PM	4400	44	1800	18	23	6	NO
SR 85	Blossom Hill Rd to Cottle Rd	SB	AM	4400	44	1800	18	5	2	NO
			PM	4400	44	1800	18	3	1	NO
SR 87	SR 85 to Capitol Expwy	NB	AM	4400	44	1800	18	21	6	NO
			PM	4400	44	1800	18	12	4	NO
SR 87	Capitol Expwy to SR 85	SB	AM	4400	44	1800	18	7	2	NO
			PM	4400	44	1800	18	20	6	NO

Notes:  
<sup>1</sup> Capacity based on the ideal capacity cited in the 2000 Highway Capacity Manual.

### Report Organization

This report has a total of five chapters. Chapter 2 describes existing transportation conditions including VMT of the existing land uses in the proximity of the project, the existing roadway network, transit service, 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 at intersections and freeway ramps. Chapter 5 presents the conclusions of the transportation analysis.

## 2. Existing Transportation Conditions

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This chapter describes the existing conditions of the transportation system within the study area of the project. It presents the vehicle miles traveled (VMT) of the existing land uses in the proximity of the project and 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 4).

### VMT of Existing Land Uses

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. Based on the sketch tool and the project's APN, the existing VMT for employment uses in the project vicinity is 15.16 per employee, and the existing VMT for residential uses in the project vicinity is 14.85 per capita. The current regional average daily VMT for employment uses is 14.37 per employee, and the citywide average daily VMT for residential uses is 11.91 per capita (see Table 1 in Chapter 1). Thus, the VMT levels of existing employment and residential uses in the project vicinity are higher than the average VMT levels. Chapter 3 presents the VMT analysis results for the project.

### Existing Roadway Network

Regional access to the project site is provided via State Route 85 and State Route 87. These facilities are described below.

**SR 85** is a predominantly north-south freeway that is oriented in an east-west direction in the vicinity of the project. It extends from Mountain View to south San Jose, terminating at US 101. SR 85 is a six-lane freeway with four mixed-flow lanes and two HOV lanes. It connects to I-280, SR 17, SR 87, and US 101. SR 85 provides access to the project site via an interchange at Blossom Hill Road.

**SR 87** is a north-south freeway providing access to the project site via its connection to SR 85. SR 87 extends from SR 85 in the south to and I-280 and US 101 in the north. SR 87 is oriented in a northwest/southwest direction and has four mixed-flow lanes and two HOV lanes.

Local access to the project site is provided via Blossom Hill Road, Blossom Avenue, Chesbro Avenue, Cahalan Avenue, and Santa Teresa Boulevard. These roadways are described below.

**Blossom Hill Road** is a six-lane divided Main Street that runs in an east-west direction in the vicinity of the site. Blossom Hill Road extends westward to Los Gatos and eastward to US 101, where it transitions into Silver Creek Valley Road. Blossom Hill Road includes sidewalks on both sides of the street and has a posted speed limit of 40 mph. Bike lanes exist west of Snell Avenue and along the

project frontage. Blossom Hill Road includes a full interchange at SR 85 and provides direct access to the site.

**Blossom Avenue** is a north-south two-lane Local Connector Street with a two-way center left-turn lane. Blossom Avenue extends from Blossom Hill Road south to Colleen Drive at the base of the Santa Teresa foothills. Blossom Avenue has buffered bike lanes and sidewalks on both sides of the street. It has a posted speed limit of 35 mph between Blossom Hill Road and Santa Teresa Boulevard and a posted speed limit of 25 mph south of Santa Teresa Boulevard. Access to the site is provided via its intersection with Blossom Hill Road.

**Chesbro Avenue** is a two-lane residential street that begins north of Blossom Hill Road and extends south to Colleen Drive at the base of the Santa Teresa foothills. Chesbro Avenue has a posted speed limit of 25 mph and has sidewalks on both sides of the street. Access to the project site is provided via its intersection with Blossom Hill Road.

**Cahalan Avenue** is a two-lane Local Connector Street that extends from Blossom Hill Road south to Colleen Drive at the base of the Santa Teresa foothills. Cahalan Avenue has a two-way center left-turn lane and has bike lanes and sidewalks on both sides of the street. It has a posted speed limit of 35 mph between Blossom Hill Road and Santa Teresa Boulevard and a posted speed limit of 25 mph south of Santa Teresa Boulevard. Access to the site is provided via its intersection with Blossom Hill Road.

**Santa Teresa Boulevard** is a six-lane divided City Connector Street that begins at the terminus of SR 87 and ends in Morgan Hill. It runs in an east-west orientation in the project vicinity and has a posted speed limit of 40 mph. Santa Teresa Boulevard has sidewalks and bike lanes on both sides of the street and provides connections to both SR 87 and SR 85. Access to the project site is provided via its intersection with Blossom Hill Road.

## 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

Sidewalks are found along all previously described local roadways in the study area. The existing network of sidewalks provides good connectivity for pedestrians between the project site and other surrounding land uses and transit stops. Crosswalks with pedestrian signal heads and push buttons are located at most of the signalized intersections in the study area. Curb ramps are provided at all signalized intersections along Blossom Hill Road. However, ADA compliant curb ramps with truncated domes are missing from the following signalized study intersections:

- Indian Avenue and Blossom Hill Road – northwest and northeast corners (project driveway);
- Chesbro Avenue and Blossom Hill Road – northwest, southwest and southeast corners; and
- Cahalan Avenue and Blossom Hill Road – all four corners of the intersection.

### 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 lane markings) to help guide bicyclists on recommended routes to certain locations.

There are a number of roadways in the project study area that have Class II bike lanes. Bike lanes currently exist on the following roadway segments:

- Blossom Hill Road, between Monterey Road and Almaden Expressway
- Snell Avenue, between Ariel Drive (south of SR 85) and Capitol Expressway
- Blossom Avenue, between Blossom Hill Road and Santa Teresa Boulevard
- Cahalan Avenue, between Blossom Hill Road and Santa Teresa Boulevard
- Chynoweth Avenue, between Barron Park Drive and Coleman Road
- Calero Avenue, between Snell Avenue and Allen Avenue
- Santa Teresa Boulevard

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. This multi-use trail system runs adjacent to SR 87 in the project vicinity, with access provided via Blossom Hill Road and Santa Teresa Boulevard, approximately 1.5 miles west of the project site. This trail system is available for use year-round. Figure 5 shows the existing bicycle facilities in the study area.

### **Existing Transit Services**

Existing transit services near the project site are provided by the Santa Clara Valley Transportation Authority (VTA). The Blossom Hill Station is conveniently located adjacent to the project site and is served by Light Rail Transit (LRT) and VTA bus route 27 (see Figure 6).

#### **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 Blossom Hill LRT Station is located adjacent to the project site and is served by the Santa Teresa-Alum Rock LRT Line (Line 901).

#### **VTA Bus Service**

Local bus route 27 stops on the project site adjacent to the Blossom Hill LRT station. Route 27 operates between the Winchester Station and Kaiser San Jose Medical Center and provides service every 30 minutes during the weekday AM and PM peak commute periods of the day. Frequent bus route 66 operates along Snell Avenue approximately ½ mile east of the project site. Route 66 operates between Kaiser San Jose Medical Center and Dixon Road in Milpitas with 15-minute headways during the weekday AM and PM peak commute periods of the day.

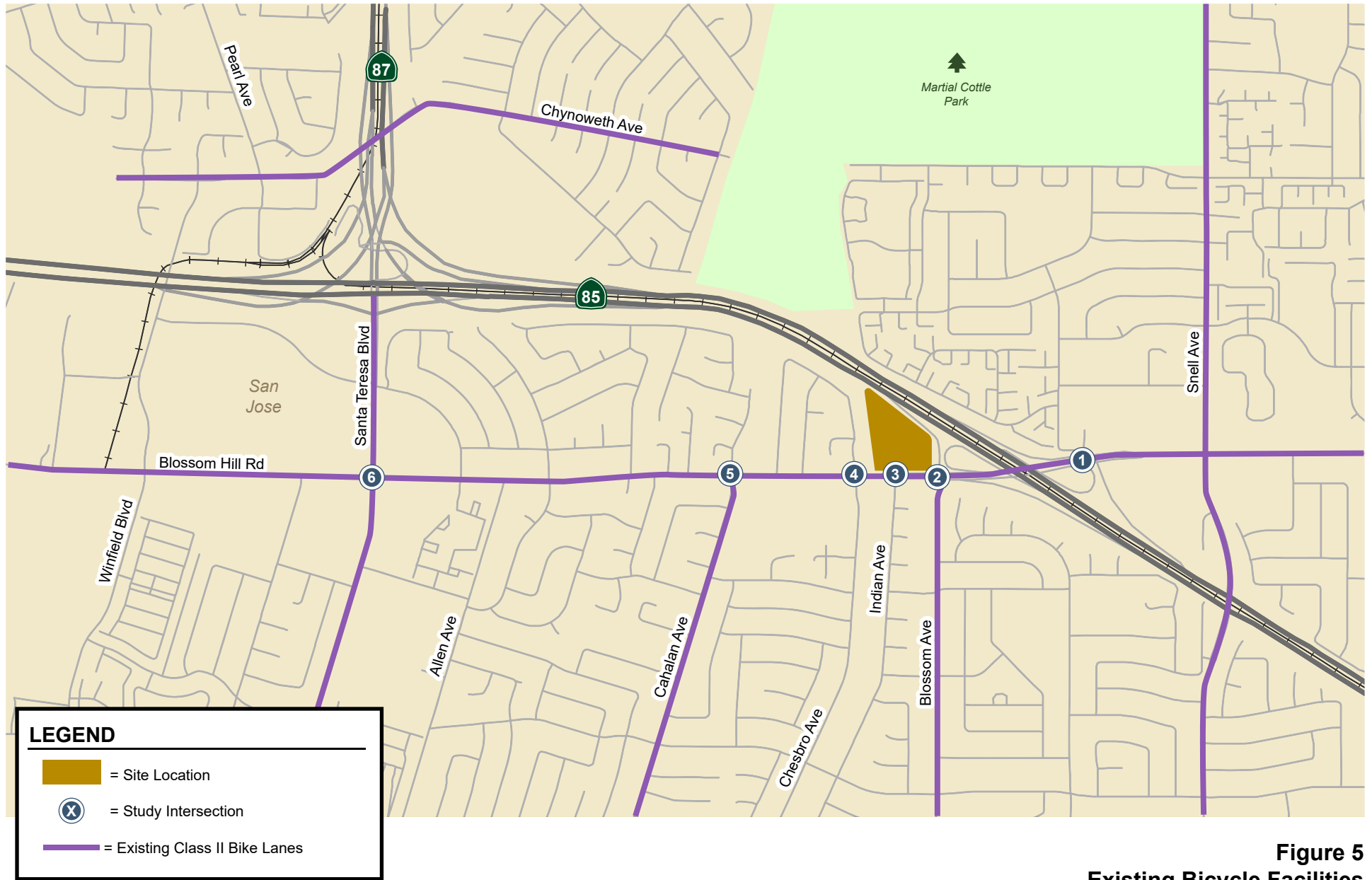
### **Existing Intersection Lane Configurations**

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

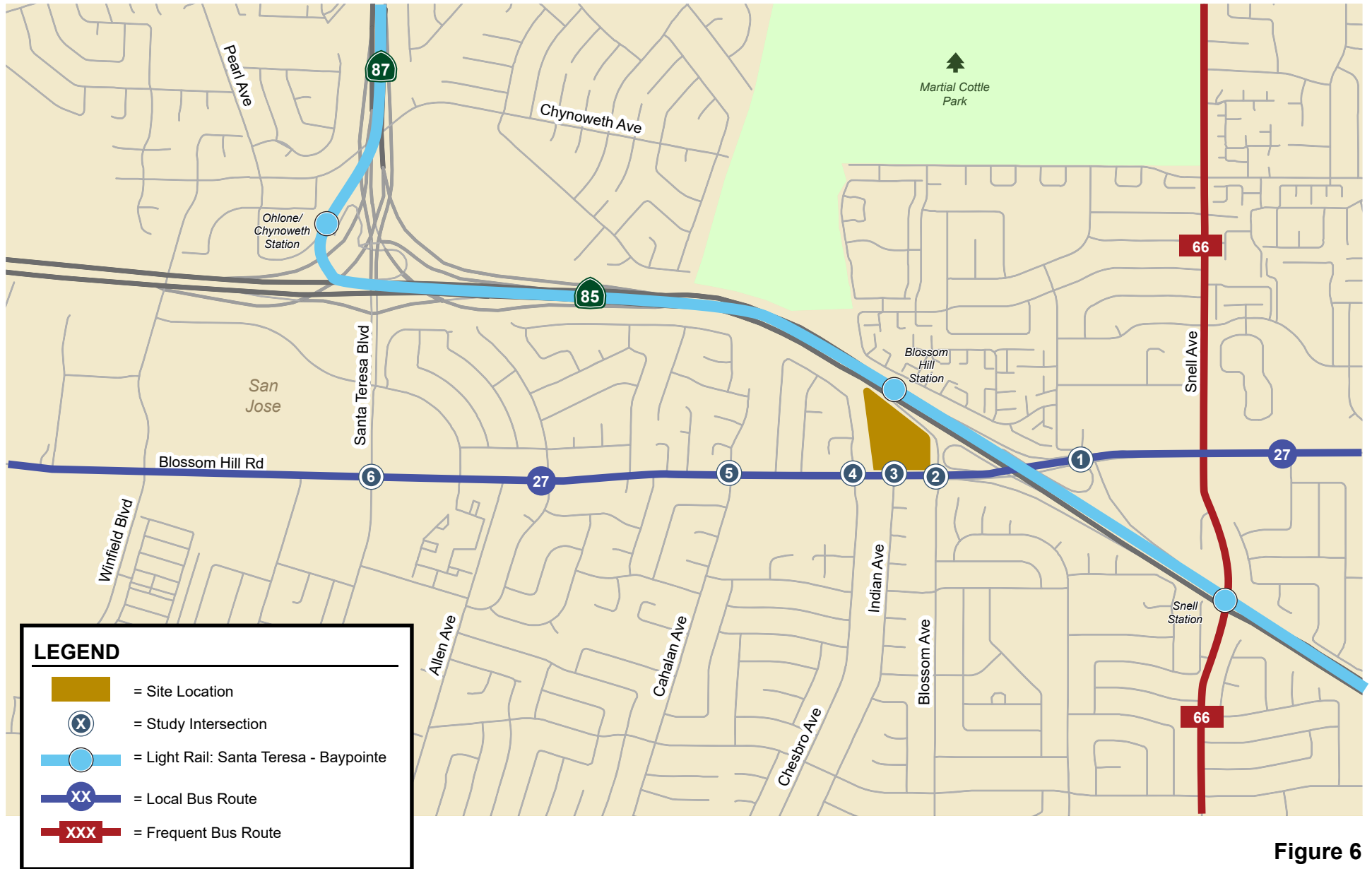
### **Observed Existing Traffic Conditions**

Due to the current COVID-19 pandemic situation, traffic volumes are generally lower than under “normal” conditions. However, it is still valuable to observe traffic conditions in the field to identify any existing operational deficiencies. Accordingly, traffic conditions in the study area were observed during the weekday AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak traffic periods. Field observations revealed the following operational issues:





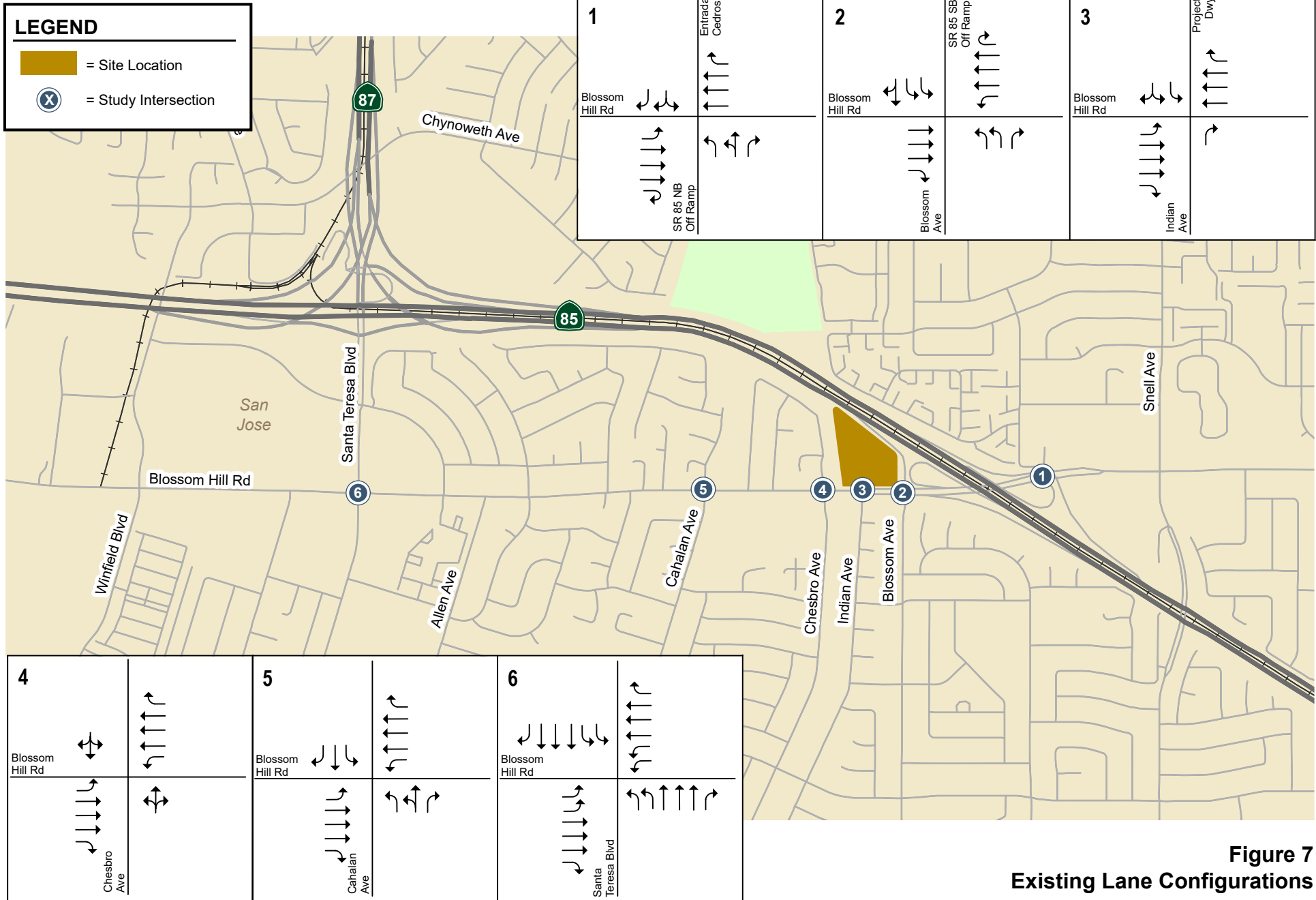
**Figure 5**  
**Existing Bicycle Facilities**



**Figure 6**  
Existing Transit Services



Blossom Hill Station TOD



**Figure 7**  
Existing Lane Configurations

### **SR 85 Northbound On-Ramp and Blossom Hill Road**

Based on field observations, long vehicle queues develop along westbound Blossom Hill Road during the weekday AM peak hour as a result of the disproportionate lane usage due to the metered SR 85 northbound on-ramp. All the vehicles preparing to enter northbound SR 85 use the outside through lane (curb lane) on westbound Blossom Hill Road. The longest vehicle queue nearly extended to Snell Avenue. However, a vehicle queue of this length occurred only once during the AM observation period. Typical vehicle queues observed during the AM peak hour were approximately half this length or less and cleared the intersection in one signal cycle. The vehicle queue on the SR 85 northbound diagonal on-ramp frequently filled the on-ramp due to the metering light, but the queue never affected intersection operations.

Vehicle queues develop on westbound Blossom Hill Road during the weekday PM peak hour as well, although the queue does not back up as far as during the morning peak commute period because this on-ramp is not metered during the PM peak hour. In fact, none of the SR 85 on-ramps are metered during the PM peak hour.

All other study intersections were observed to operate without any noteworthy operational issues during both the AM and PM peak hours.

## 3. CEQA Transportation Analysis

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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, 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 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. Although the proposed project consists of a high-density residential transit-oriented development and is located within a future Urban Village (i.e., planned growth area), it does not meet the screening criteria (as described in Chapter 1) because the project site is located in a high VMT area according to the City's General Plan. Therefore, a detailed CEQA transportation analysis (i.e., VMT analysis) was prepared for the residential component of the project. The retail component of the project, on the other hand, meets the screening criteria set forth in the City's *Transportation Analysis Handbook* as local-serving retail of less than 100,000 s.f. and does not require a VMT analysis.

The San Jose VMT Evaluation Tool was used to estimate the project VMT based on the project location (APN), type of development, project description, and proposed trip reduction measures. The threshold of significance for residential uses (see Table 1 in Chapter 1) is used for the VMT analysis. The VMT threshold for residential uses is the existing citywide average daily VMT level (11.91 per capita) minus 15 percent, or 10.12 daily VMT per capita.

### Project VMT Impact Analysis Results

The project VMT estimated by the City's VMT Evaluation Tool is 13.37 per capita. The project VMT, therefore, exceeds the threshold of 10.12 VMT per capita. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold (such as the project study area) are referred to as being in "high-VMT areas", and 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.

### Project Impact

Since the VMT generated by the project would exceed the threshold of significance for residential uses in the area, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

## **Project Mitigation**

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement pedestrian network improvements and increase transit accessibility (Tier 2 strategies), as well as implement a Transportation Demand Management (TDM) Plan (various Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies are recommended to mitigate the significant VMT impact:

### **Pedestrian Network Improvements**

The project would construct a new bicycle/pedestrian shared-use path along the east side of Canoas Creek adjacent to the western boundary of the project site. The project would also construct a pedestrian path along the eastern boundary of the project site, which would serve as an emergency vehicle access (EVA) road. The paths would connect and create a half-mile loop trail around the site. In addition to constructing a new shared-use trail along the Canoas Creek project frontage, the project would (at a later date yet to be determined) construct a 0.8-mile Canoas Creek trail extension from the project site to Martial Cottle park. The trail extension would potentially include demolition and relocation of portions of the VTA light rail station, including all or a part of the stairs leading to the North side of the VTA station; removal of the fencing and demolition of concrete structures under the Hwy 85 overpass; and the creation of an 8- to 12-foot-wide bicycle/pedestrian shared-use path along Canoas Creek. Signage, landscaping, and/or fencing would buffer the trail from the adjacent residential neighborhoods to the east and west of Canoas Creek. Bridges and platforms over Canoas Creek may be included to link the adjacent portion of the new trail to the future trail extension. Providing pedestrian improvements and enhancing pedestrian connections both on- and off-site would encourage people to walk instead of drive, thereby and reducing VMT.

### **Increase Transit Accessibility**

In addition to being located adjacent to an LRT station, the proposed transit-oriented development project would add bus stops with duck-outs and shelters on both sides of Blossom Hill Road, approximately midway between the project driveway and the SR 85 southbound off-ramp. The new bus stops would be situated near the proposed residential and retail uses on the site (Building A) and in proximity to the surrounding residential areas. Enhancing access to quality transit would encourage the use of transit by people traveling to and from the project site and surrounding area. This would result in a mode shift (i.e., reduces drive-along trips), thereby reducing VMT.

### **School Pool Program**

The project should implement a School Pool Program. The purpose of this program would be to match parents of the proposed residential development who transport students to schools without a bussing program, including private schools, charter schools, and neighborhood schools where students cannot walk or bike. The school pool program would be open to all families of the development. It is estimated that half of the families with school-age children would likely participate in the carpool program. School pools reduce the total number of vehicle trips traveling to and from schools, thereby reducing VMT.

### **Subsidized Transit Program**

The project should provide two (2) fully subsidized transit passes (i.e., VTA SmartPass) per residential unit annually for the life of the project. Subsidized transit passes are an effective means of encouraging residents to use transit rather than drive. Transit passes would allow residents to save money, avoid the stress and hassle of driving during the weekday commute periods of traffic, and reduce their overall environmental impact. A subsidized transit program would be an extremely effective way to reduce vehicle trips, thereby reducing VMT, since the proposed residential mixed-use development would be situated adjacent to an existing LRT station. Bus route 27 also serves the project site.

The SmartPass would allow residents to benefit from unlimited free rides on VTA buses and light rail trains, seven days a week. SmartPass is deeply discounted below the standard fares, making it an attractive low-cost benefit to many developments. According to the VTA website, depending on the category, geographic location and size, annual SmartPasses can be purchased from \$20.75 to \$180.00 per year per participant for unlimited rides on VTA buses and light rail trains (2020 rates). This presents a substantial savings, considering it costs \$990 for a standard adult annual SmartPass.

SmartPass is loaded on a Clipper Card, which can be used for transit agencies across the Bay Area. The Clipper Card is an all-in-one transit card that can be used to pay for rides on all major Bay Area transit providers, including VTA. Anyone can obtain a Clipper Card and use it to hold transit passes, including SmartPasses. Additional cash value can be loaded onto the card online or at certain retail locations as a convenient way of paying for transit fares. Clipper offers discount cards for youth, seniors and people with disabilities.

### **Voluntary Travel Behavior Change Program**

The project should provide a program that targets individual attitudes and behaviors towards travel and provides information and tools for residents to analyze and alter their travel behavior. Voluntary Travel Behavior Change programs include mass communication campaigns and travel feedback programs, such as travel diaries or feedback on calories burned from alternative modes of travel. This strategy encourages the use of shared ride modes, transit, walking, and biking, thereby reducing drive-alone vehicle trips and VMT. It is estimated that half of the residents would participate in the Voluntary Travel Behavior Change program.

### **On-Site TDM Administration and Services**

The project should designate a Transportation Coordinator who focuses on transportation issues and is responsible for implementing the TDM measures. The TDM coordinator would be a point of contact for residents should TDM-related questions arise and would be responsible for ensuring that residents are aware of all the transportation options available to them. The TDM coordinator would provide the following services and functions:

- Provide new tenants information packets at the time of move-in. The welcome packets should include information about public transit services, discount transit passes, bicycle maps, the school pool program, and other rideshare/carpool options.
- Assist with school pool/carpool matching. The TDM manager should help match residents interested in carpooling, including the school pool program.
- Maintain a supply of up-to-date transit schedules and route maps for VTA and Caltrain and be knowledgeable enough to answer residents' TDM program related questions.

### **Information Board/Online Kiosk**

An online kiosk with information regarding non-auto transportation alternatives should be provided. The online kiosk would update key transportation information included in the welcome packets. Transportation news and commuter alerts should be posted online. The building developer would have responsibility for creating the website so that it is up and running as soon as the new buildings are ready for leasing. More specific information should be added later to reflect any programs specific to certain tenants. The Transportation Coordinator would be responsible for adding new information to the website (or providing it to the website designer) so that the online kiosk remains current and informative.

### Bicycle Resources

As part of the information available in the online kiosk discussed above, resources useful to cyclists should be included. For example, the local bikeways map should be posted for easy reference.

The following resources are available to bicycle commuters through 511.org. These resources should be noted on the project's online information center to make residents aware of them.

- Free Bike Buddy matching
- Bicycle maps
- Bicycle safety tips
- Information about taking bikes on public transit
- Location and use of bike parking at transit stations
- Information on Bike-to-Work Day
- Tips on selecting a bike, commuter gear, and clothing
- Links to bicycle organizations

### Implementation, Monitoring and Reporting

The TDM Plan would require coordination with City of San Jose staff. The project applicant should submit the TDM Plan to the City of San Jose for approval. The project applicant would also be responsible for ensuring that the TDM strategies are incorporated into the project. After the project is constructed and occupied, the project applicant should identify a TDM Coordinator. The TDM Coordinator would be responsible for implementing the ongoing TDM program. Having a main contact person would help ensure that transportation-related questions from residents are responded to promptly. If the TDM Coordinator changes for any reason, City staff and residents shall be notified of the name and contact information of the newly designated TDM Coordinator.

The TDM Plan would need to be re-evaluated annually for the life of the project. It is recommended that the designated TDM Coordinator consult with City staff to ensure the monitoring and reporting meets the City's expectations. Monitoring should include the following components:

- Annual Vehicle Trip Generation Counts (conducted by a third party). It is assumed that every percent reduction in peak-hour vehicle trips generated by the project is equivalent to a one percent reduction in per-resident VMT. If the counts show the project trip generation is higher than expected, then the TDM Plan may need to be altered or enhanced.
- Annual Mode Share Surveys. A survey to be administered to all tenants would provide qualitative data regarding residents' perceptions of the alternative transportation programs and perceptions of the obstacles to using an alternative mode of transportation. The survey also would provide quantitative data regarding the number of residents who utilize alternative modes of transportation (e.g., bike-to-work, carpool, or use public transit) to commute to work, including the frequency of use. The mode share survey results should measure the relative effectiveness of individual TDM program components and facilitate the design of possible program enhancements in order to reduce single-occupant vehicle trips.
- Annual Monitoring Report. The TDM Coordinator would be responsible for submitting the monitoring reports to the City of San Jose (Department of Building and Code Enforcement's Environmental Review) annually for three years, and then upon request of the Zoning Administrator for the life of the project.



## **Conclusions of VMT Impact and Mitigation**

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 11.88 per capita. This represents a reduction of 20% compared to the area VMT and is the maximum reduction possible.

Figures 8A and 8B show the VMT summary reports generated by the evaluation tool without and with implementation of the recommended mitigation measures, respectively. Since the project VMT would remain above the City's threshold of 10.12 VMT per capita with mitigation, the VMT impact is considered unmitigable. Thus, the project would result in a significant and unavoidable VMT impact.

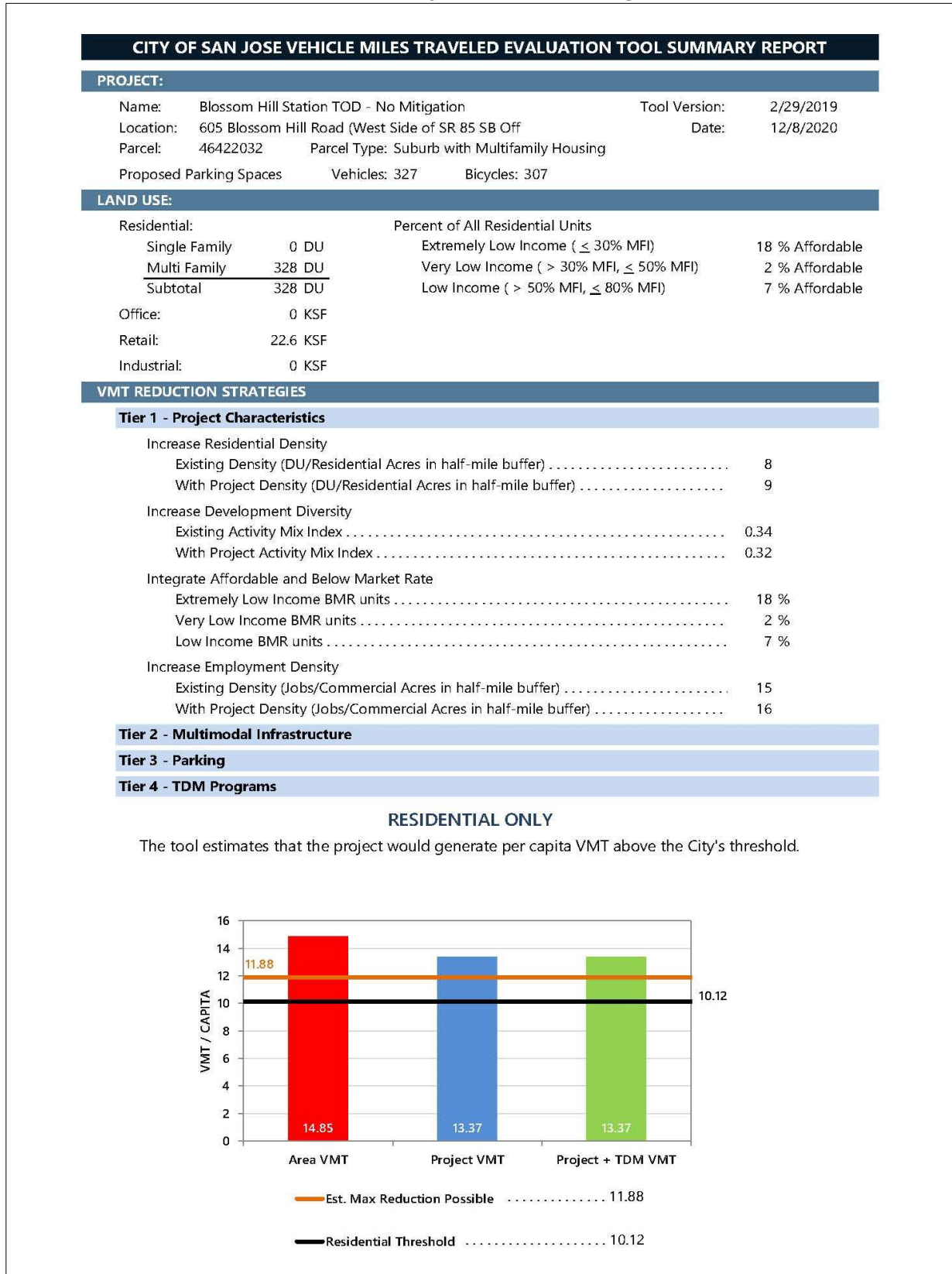
To address the unmitigable project impact, City Council would need to adopt a statement of overriding considerations. The override would apply to the VMT that cannot be mitigated ( $11.88 - 10.12 = 1.76$  VMT) and would be in the form of either the construction or funding of multi-modal improvements. The base override fee for residential projects was established in March of 2018 when Council Policy 5-1 was adopted and is \$2,300 per VMT not mitigated per resident. According to the City of San Jose Land Use Assumptions for the 2020 General Plan Four-Year Review, there are approximately 3 residents per household within the City. The override fee is subject to an annual escalation on January 1<sup>st</sup> in line with the Engineering News-Record Construction Cost Index (ENR CCI) for San Francisco. The 2019 and 2020 ENR CCIs for San Francisco are +0.8% and +5.7%, respectively. Thus, based on a 2019 override fee of \$2,318, the 2020 override fee amounts to \$2,450.

Note that since the affordable housing component of the project would meet all the screening criteria outlined in the City's *Transportation Analysis Handbook* for "Restricted Affordable Residential Projects or Components", the affordable housing component of the project (89 affordable apartment units) is exempted from the override VMT fee calculation. A description of the screening criteria and an explanation of how the affordable housing component of the project satisfies each criterion are included below.

### **Screening Criteria for Restricted Affordable Residential Projects or Components**

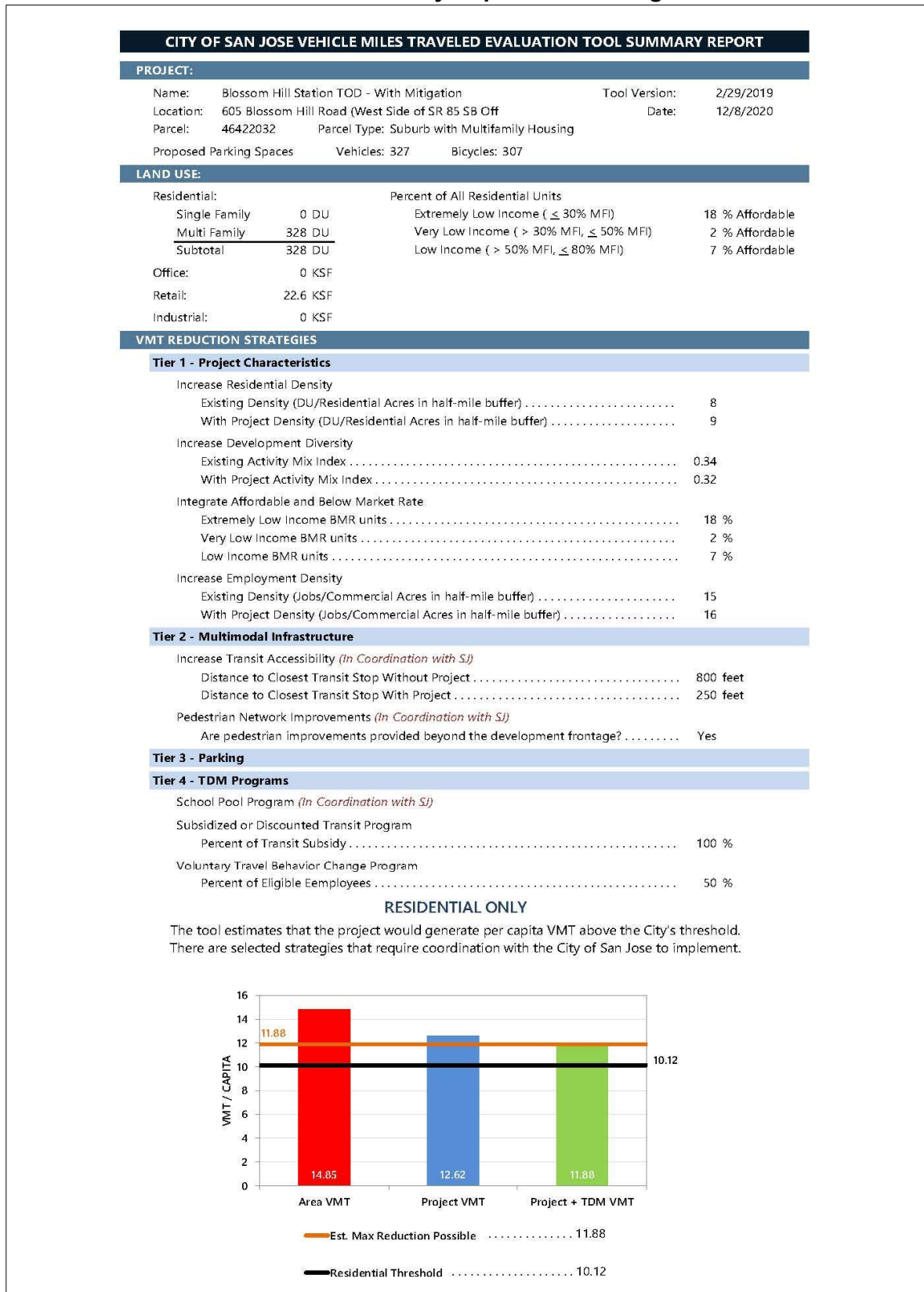
- 1. Affordability:** 100% restricted affordable units; and
- 2. Planned Growth Areas:** Located within a Planned Growth Area as defined in the Envision San Jose 2040 General Plan; and
- 3. High-Quality Transit:** Located within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor; and
- 4. Transit-Supporting Project Density:**
  - Minimum of 35 units per acre for residential projects or components;
  - If located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; and
- 5. Transportation Demand Management (TDM):** If located in an area in which the per capita VMT is higher than the CEQA significance threshold, a robust TDM plan must be included; and
- 6. Parking:**
  - No more than the minimum number of parking spaces required;
  - If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; and
- 7. Active Transportation:** Not negatively impact transit, bike, or pedestrian infrastructure.

**Figure 8A  
San Jose VMT Evaluation Tool Summary Report – No Mitigation**





**Figure 8B  
San Jose VMT Evaluation Tool Summary Report – With Mitigation**



The affordable housing component of the project would meet each criterion as follows:

- Would consists of 100% restricted affordable units = Criterion 1 met;
- Would be located within the future Blossom Hill Road/Cahalan Avenue Urban Village (Planned Growth Area) = Criterion 2 met;
- Would be located within ½ mile of high-quality transit (Blossom Hill station) = Criterion 3 met;
- Would have a residential density of 44 DU/AC (328 DU / 7.42 AC = 44 DU/AC) = Criterion 4 met;
- Would implement a TDM Plan = Criterion 5 met;
- Would provide the minimum amount of parking required = Criterion 6 met; and
- Would not negatively impact transit, bike or pedestrian infrastructure = Criterion 7 met.

### Override VMT Impact Fee Calculation

Based on the current override fee the project, which includes up to 239 market rate residential units, would be required to pay a VMT impact fee of \$3,091,704 as follows:

$$\text{VMT Impact Fee: } \$2,450 \times 1.76 \text{ VMT} \times (239 \text{ units} \times 3 \text{ residents per unit}) = \$3,091,704$$

City staff have indicated that the project will be required to implement improvements that are equal to the total VMT impact fee amount. A final list of improvements and associated cost estimates will be prepared as part of the conditions of approval for the project. The following preliminary list of improvements is subject to change based on the final cost estimates:

#### 1. Blossom Hill Road & Cahalan Avenue Intersection Improvements (Preliminary)

##### Signal Improvements

- Remove pork-chop island at northeast corner and tighten curb radius.
- Provide new signal poles and mast arms at all corners and remove existing signal pole from median island on Blossom Hill Road.

##### Lane Configuration and Striping Improvements

- Upgrade crosswalks to high visibility crosswalks.
- Install intersection lane line extension for northbound left-turn movement.

##### Signal Operations and Street Lighting Improvements

- Provide 8-phase signal operations.
- Upgrade existing signal cabinet and controller on northwest corner.

##### Crosswalk and Curb Ramp Improvements

- Add new crosswalk to west leg of intersection.
- Install accessible pedestrian signals (APS) at all crosswalks.
- Upgrade pedestrian ramps at all corners to ADA standards and provide directional curb cuts.

##### ITS Infrastructure and Identification

- Upgrade to video detection for all intersection approaches (Point-Zoom cameras).

#### 2. Blossom Hill Road & Snell Avenue Intersection Improvements (Preliminary)

##### Signal Improvements

- Remove pork-chop islands at northeast, southeast and southwest corners and tighten curb radii.
- Provide new signal poles and mast arms at all corners and remove existing signal poles from median island on Blossom Hill Road.

### Lane Configuration and Striping Improvements

- Upgrade all crosswalks to high visibility crosswalks.

### Signal Operations and Street Lighting Improvements

- Upgrade existing signal cabinet and controller on northwest corner.

### Crosswalk and Curb Ramp Improvements

- Provide directional pedestrian curb ramps on all corners.

### 3. *Canoas Creek Trail Extension*

- The project would construct a Canoas Creek trail extension from the project site to Martial Cottle Park. The trail extension would potentially include demolition and relocation of portions of the VTA light rail station, including all or a part of the stairs leading to the North side of the VTA station; removal of the fencing and demolition of concrete structures under the Hwy 85 overpass; and the creation of an 8- to 12-foot-wide bicycle/pedestrian shared-use path along Canoas Creek. Signage, landscaping, and/or fencing would buffer the trail from the adjacent residential neighborhoods to the east and west of Canoas Creek. Bridges and platforms over Canoas Creek may be included to link the adjacent portion of the new trail to the future trail extension.

## 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, the project site is designated as Neighborhood Community Commercial (NCC) and is located within the planned Blossom Hill Road and Cahalan Avenue Urban Village. The proposed project consists of a high-density transit-oriented residential development, including an affordable housing component (27% affordable), and is a mixed-use project that includes retail uses. According to Implementation Policy 5.12 (IP-5.12), residential projects in a non-approved Urban Village can develop on sites with a commercial land use designation (such as the project site's current NCC designation) if they either apply as a mixed-use development under the category of Signature Projects or are 100% affordable housing and comply with Policy IP-5.12 of the General Plan. The project is applying for a special use permit under the Signature Project category. And although the Urban Village Plan has not yet been approved, the proposed transit-oriented mixed-use development would be allowed to occur under the current NCC land use designation. Therefore, the project conforms to the current General Plan and would not require a General Plan Amendment.

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

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This chapter describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis for background plus project conditions, 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. It is assumed in this analysis that the future transportation network with the project would be the same as the existing transportation network.

### 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 many types of land uses. This research is compiled in the *Trip Generation Manual, 10<sup>th</sup> Edition* (2017) published by the Institute of Transportation Engineers (ITE). 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.

Trips that would be generated by the residential component of the mixed-use project were estimated using the ITE average trip rates for "Multifamily Housing Mid-Rise" (ITE Land Use 221) located in a General Urban/Suburban setting. This land use category includes apartment, townhouse and condominium developments with a total of at least four (4) dwelling units and that have between three (3) and ten (10) levels. As proposed, both residential buildings would be more than 4 stories tall and less than 10 stories tall. The same trip rates were applied to both the affordable and market rate components of the project.

Trips that would be generated by the retail component of the project were estimated using the ITE average trip rates for “Shopping Center” (ITE Land Use 820) located in a General Urban/Suburban setting. The ITE rates for Shopping Center are commonly used for projects such as this if the specific retail land uses are not known at the time the traffic study is being prepared, since shopping centers typically contain a wide range of retail land uses.

### **Trip Adjustments and Reductions**

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. The applicable trip adjustments and reductions are described below.

#### *Internal Mixed-Use Trip Reduction*

In accordance with VTA’s *Transportation Impact Analysis Guidelines* (October 2014, Section 8.2.1, “Standard Trip Reductions”), a 15% residential/retail mixed-use trip reduction can be applied to account for the internalization of trips between the two land uses. The 15% reduction is first applied to the smaller trip generator (retail use). The same number of trips are then subtracted from the larger trip generator (residential use) to account for both internal trip ends.

#### *Location-Based Trip Adjustment*

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 as per the San Jose Travel Demand Model. The project’s place type was obtained from the San Jose VMT Evaluation Tool. Based on the tool, the project site is located within the place type “Suburban with Multifamily Housing”. Therefore, the baseline project trips were adjusted to reflect a Suburban with Multifamily Housing mode share. Residential and retail developments within Suburban with Multifamily Housing areas have a vehicle mode share of 88% (according to Table 6 of the City’s *Transportation Analysis Handbook*). Thus, a 12% reduction was applied to the project trip generation estimates based on the location-based vehicle mode share outputs produced from the San Jose Travel Demand Model. The 12% trip reduction is based on the percent of mode share for other modes of travel besides vehicles.

#### *Project-Specific Residential Trip Reduction*

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. The standard VMT reduction strategies that apply to the project include the following project characteristics: Increase Residential Density, Increase Employment Density, Increase Development Diversity, Integrate Affordable and Below Market Rate Units, Increase Transit Accessibility, and Provide Pedestrian Network Improvements. The VMT Evaluation Tool calculated a 15% external trip reduction based on the project’s mix of increased residential and employment density, proposed affordable residential units, improved transit accessibility, and proposed pedestrian network improvements.

#### *Retail Pass-By Trip Reduction*

A pass-by trip reduction can be applied to the net peak hour trip generation estimates for the proposed ground floor retail uses. 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. A PM peak hour pass-by trip reduction of 34% was applied to the ground floor retail space based on the ITE *Trip Generation Handbook* (Third Edition) for the Shopping Center land use. No AM peak hour pass-by trip reduction is provided in the handbook, since many retail uses are not open during the weekday AM peak hours. A daily pass-by trip reduction of 17% was calculated based on the average of the AM (0%) and PM (34%) pass-by trip reduction percentages.

### **Net Project Trips**

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, the project would generate 1,768 new daily vehicle trips, with 102 new trips occurring during the AM peak hour and 139 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 32 new inbound and 70 new outbound trips during the AM peak hour, and 80 new inbound and 59 new outbound trips during the PM peak hour (see Table 4).

### **Trip Distribution and Assignment**

The trip distribution patterns for the project were 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 AM and PM peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution patterns.

Figure 9 shows the residential project trip distribution pattern and trip assignment. Figure 10 shows the trip distribution pattern and trip assignment for the retail component of the project. The total project trip assignment is shown on Figure 11.

## **Traffic Volumes Under All Scenarios**

### **Existing Traffic Volumes**

Existing AM and PM peak hour traffic volumes were obtained from the City of San Jose, the 2018 CMP Annual Monitoring Report, and new manual turning-movement counts conducted in August of 2019 (prior to the COVID-19 pandemic conditions). The new count data are contained in Appendix A and have been reviewed and approved by City of San Jose Department of Transportation staff for use in this traffic study. As required by the VTA CMP, the PM peak hour traffic volumes at the three CMP intersections were obtained from the latest version of the CMP Annual Monitoring Report. The existing peak-hour intersection volumes are shown on Figure 12.

### **Background Traffic Volumes**

Background traffic volumes are typically estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments is provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). However, City staff have indicated that ATI is not available for the study intersections because there are no approved projects in the study area. Thus, background conditions presented in this traffic study are identical to existing conditions. Accordingly, existing/background conditions (see Figure 12) represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project.

### **Background Plus Project Traffic Volumes**

Project trips were added to existing/background traffic volumes to obtain project traffic volumes (see Figure 13).

Traffic volumes for all traffic scenarios are tabulated in Appendix B.



**Table 4  
Project Trip Generation Estimates**

ITE Land Use	ITE Land Use Code	% of Vehicle Mode Share	VMT <sup>3</sup>		Reduction %	Size	Daily		AM Peak Hour						PM Peak Hour					
			Existing	Project			Rate	Trip	Pk-Hr Rate	Split		T rip			Pk-Hr Rate	Split		T rip		
										In	Out	In	Out	Total		In	Out	Total		
Multifamily Housing (Mid-Rise) (LU 221)	221					328 DU	5.44	1,784	0.36	26%	74%	31	87	118	0.44	61%	39%	88	56	144
15% housing and retail mixed-use reduction <sup>1</sup>					15%			(128)				(1)	(2)	(3)				(7)	(6)	(13)
Location based reduction (Suburb with Multifamily Homes) <sup>2</sup>		88%			12%			(199)				(4)	(10)	(14)				(10)	(6)	(16)
Project Specific VMT reduction <sup>3</sup>			14.85	12.62	15%			(219)				(4)	(11)	(15)				(11)	(7)	(18)
<b>Total Residential Project Trips:</b>								<b>1,238</b>				<b>22</b>	<b>64</b>	<b>86</b>				<b>60</b>	<b>37</b>	<b>97</b>
Shopping Center (LU 820)	820					22,595 SF	37.75	853	0.94	62%	38%	13	8	21	3.81	48%	52%	41	45	86
15% housing and retail mixed-use reduction <sup>1</sup>					15%			(128)				(2)	(1)	(3)				(6)	(7)	(13)
Location based reduction (Suburb with Multifamily Homes) <sup>2</sup>		88%			12%			(87)				(1)	(1)	(2)				(4)	(5)	(9)
34% PM Passby Reduction <sup>4</sup>					17%/0%/34%			(108)				0	0	0				(11)	(11)	(22)
<b>Total Retail Project Trips:</b>								<b>530</b>				<b>10</b>	<b>6</b>	<b>16</b>				<b>20</b>	<b>22</b>	<b>42</b>
<b>Total New Project Trips</b>								<b>1,768</b>				<b>32</b>	<b>70</b>	<b>102</b>				<b>80</b>	<b>59</b>	<b>139</b>

Source: ITE Trip Generation Manual, 10<sup>th</sup> Edition (2017). Rates for Multifamily Housing (Land Use 221) expressed in trips per DU; rates for Shopping Center (Land Use 820) expressed in trips per 1,000 SF.

<sup>1</sup> A 15% residential/retail internal mixed-use trip reduction was applied per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller trip generator (retail). The same number of trips were subtracted from the larger trip generator (residential) to account for both trip ends.

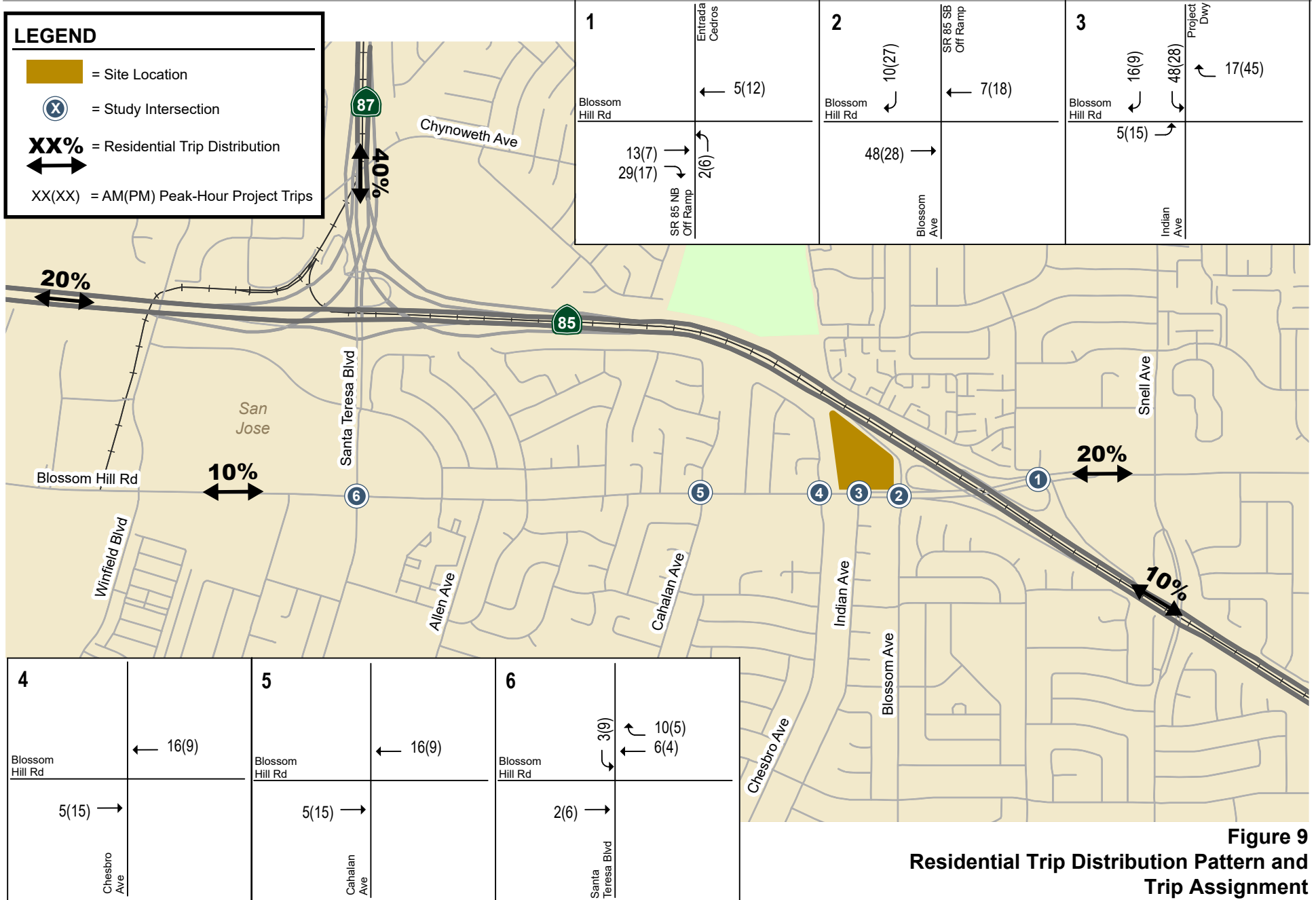
<sup>2</sup> The project site is located within the place type Suburban with Multifamily Housing based on the City of San Jose VMT Evaluation Tool (February 29, 2019). The location-based vehicle mode share percentage outputs are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2018). The 12% trip reduction is based on the percent of mode share for other modes of travel besides vehicles.

<sup>3</sup> Based on the existing and project VMTs per capita obtained from the City's VMT Evaluation Tool, a 15% reduction for the residential component of the project was applied. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips.

<sup>4</sup> The PM peak hour pass-by trip reduction percentage (34% for Shopping Center) was based on the ITE Trip Generation Handbook (Third Edition). No AM peak hour pass-by trip reduction is provided. The daily pass-by trip reduction (17%) was calculated based on the average of the AM and PM pass-by trip reduction percentages.

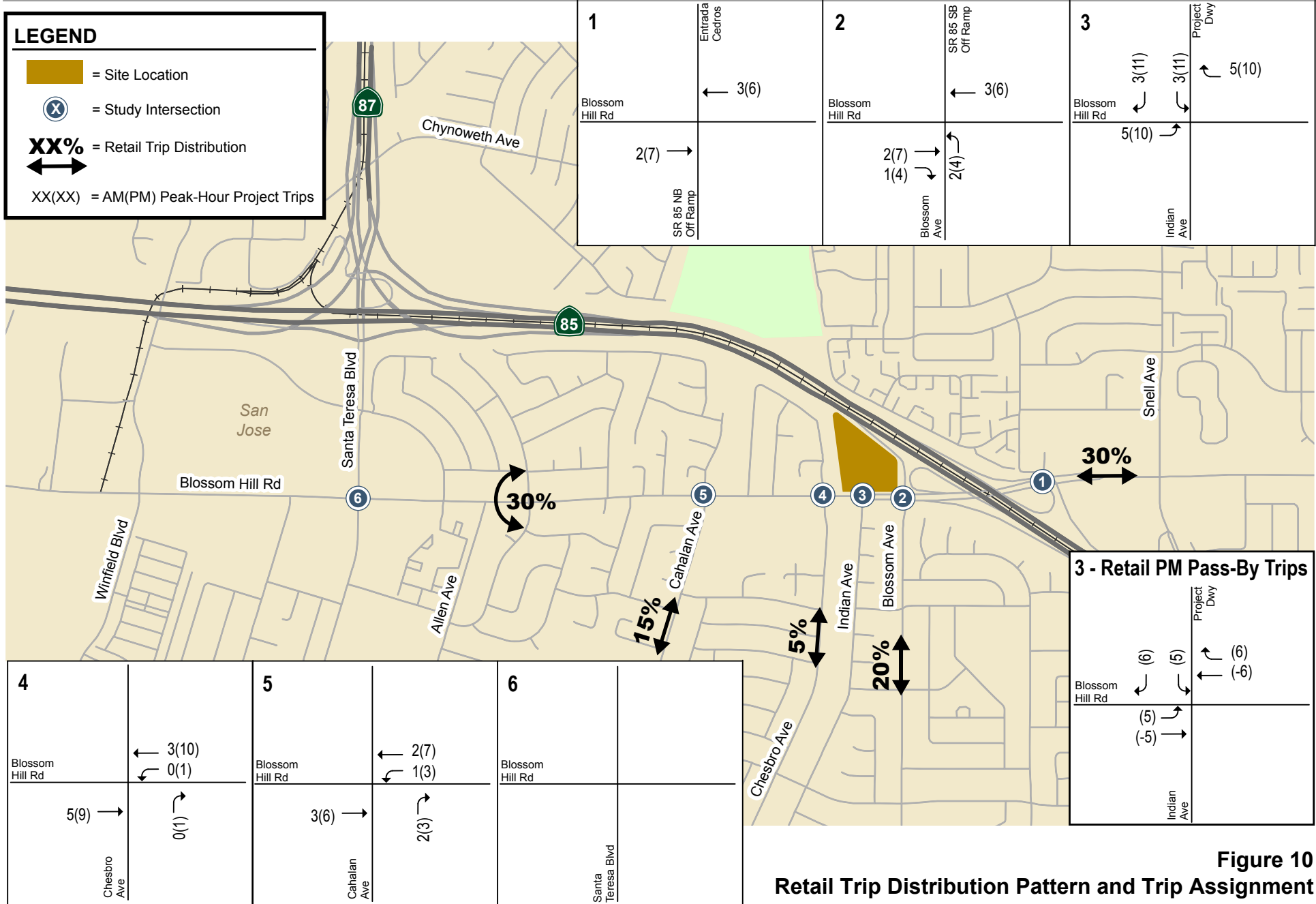


Blossom Hill Station TOD



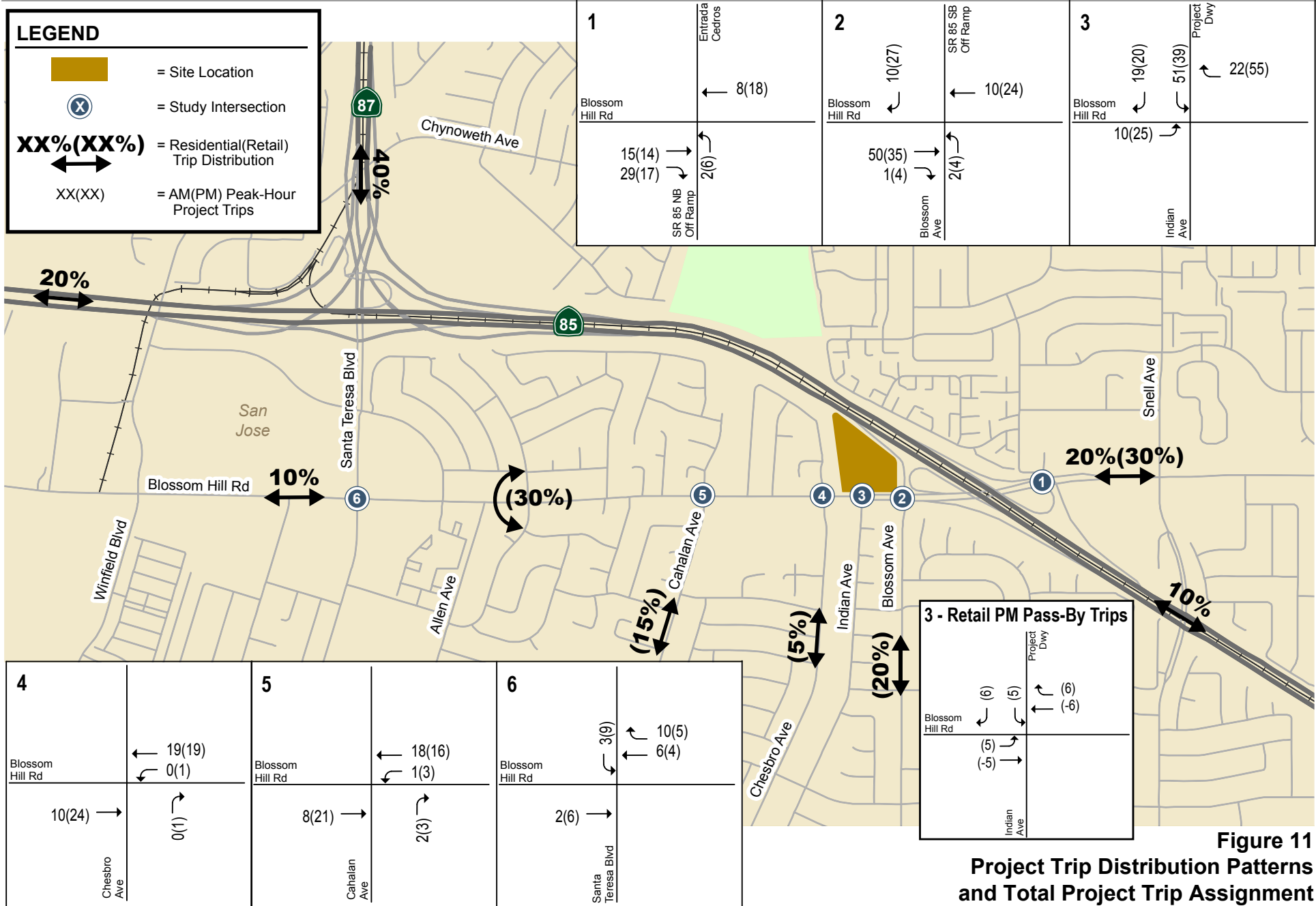
**Figure 9**  
Residential Trip Distribution Pattern and Trip Assignment

Blossom Hill Station TOD



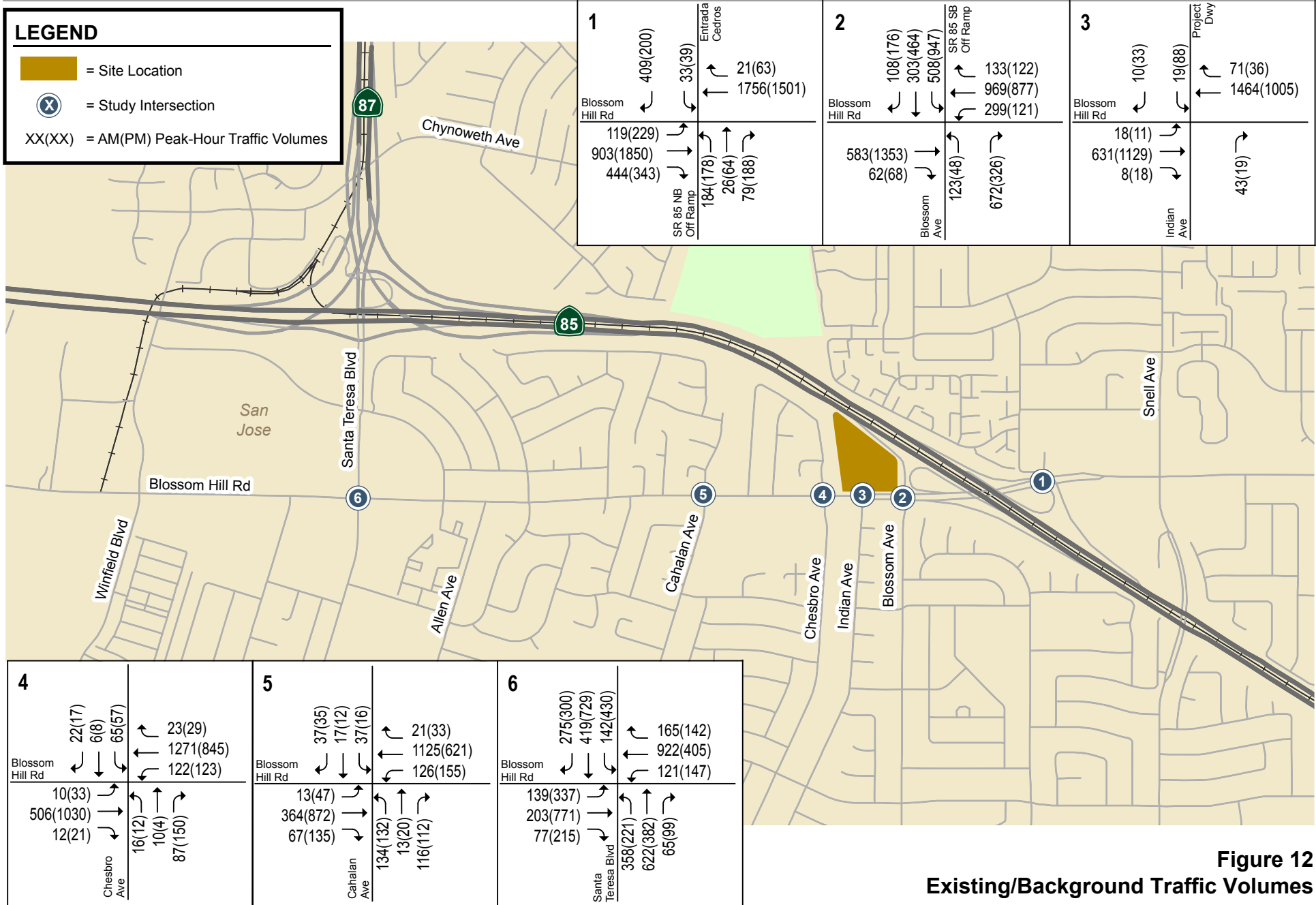
**Figure 10**  
Retail Trip Distribution Pattern and Trip Assignment

Blossom Hill Station TOD



**Figure 11**  
Project Trip Distribution Patterns and Total Project Trip Assignment

Blossom Hill Station TOD



**Figure 12**  
Existing/Background Traffic Volumes

Blossom Hill Station TOD

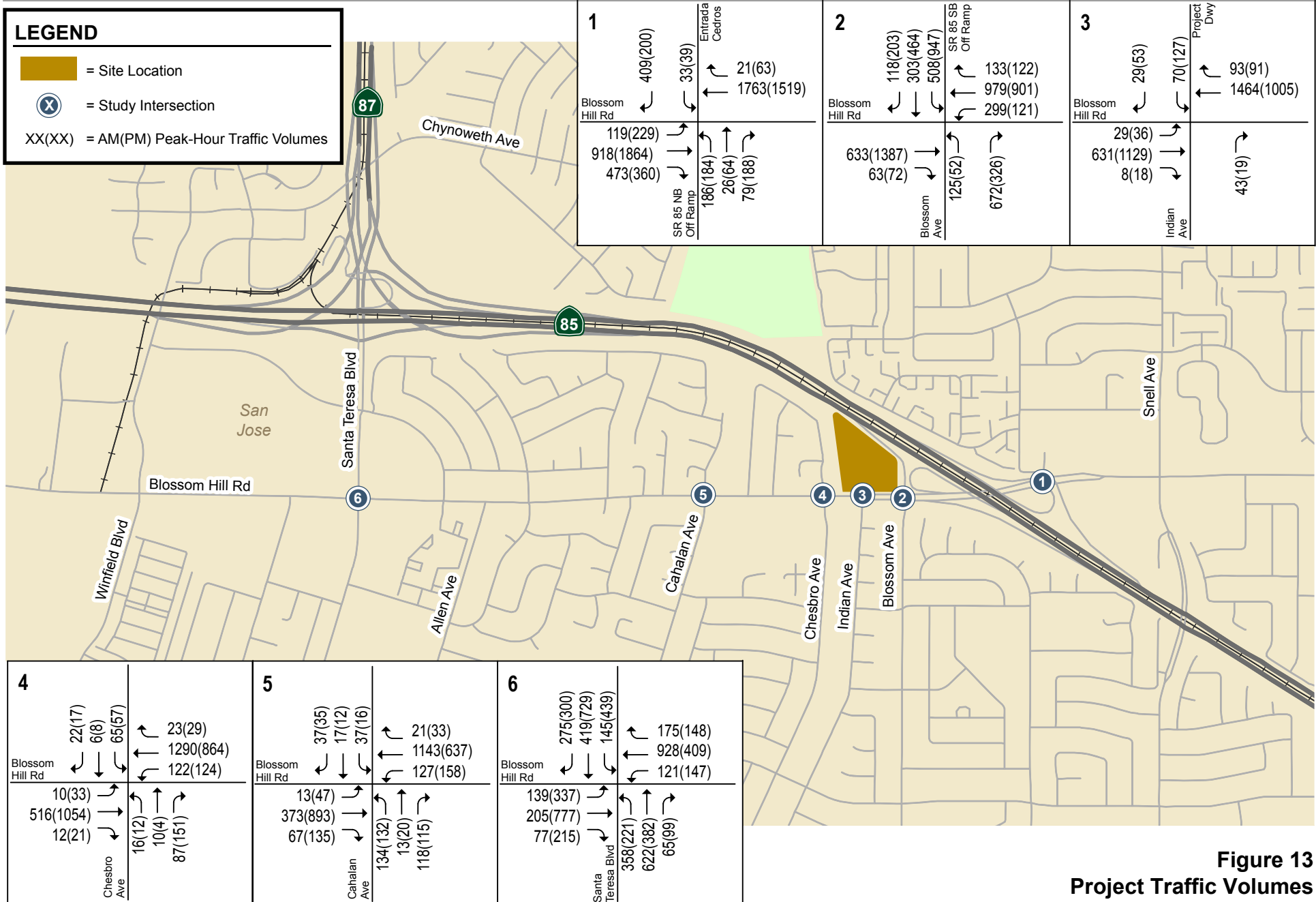


Figure 13  
Project Traffic Volumes

### 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 but one of the signalized study intersections are currently operating at an acceptable level of service (LOS D or better) during both 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 intersection of SR 85 Southbound Off-Ramp/Blossom Hill Road is operating at an unacceptable LOS E during both the AM and PM peak hours of traffic under existing/background conditions and would continue to do so under project conditions. However, the project would not have an adverse effect on intersection operations according to the City’s operational thresholds.

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

**Table 5  
Intersection Level of Service Summary**

Int. #	Intersection	LOS Standard	Peak Hour	Count Date	Existing / Background Conditions		Project Conditions			
					Avg. Delay	LOS	Avg. Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	SR 85 NB Off-Ramp and Blossom Hill Road (E) *	D	AM	12/06/18	30.4	C	30.3	C	0.0	0.002
			PM	12/06/18	33.6	C	33.6	C	-0.1	0.003
2	SR 85 SB Off-Ramp and Blossom Hill Road (W) *	D	AM	12/13/18	<b>60.2</b>	<b>E</b>	<b>61.6</b>	<b>E</b>	<b>2.5</b>	<b>0.010</b>
			PM	12/13/18	<b>59.2</b>	<b>E</b>	<b>60.1</b>	<b>E</b>	<b>1.4</b>	<b>0.006</b>
3	Indian Avenue and Blossom Hill Road	D	AM	08/28/19	7.7	A	11.1	B	3.5	0.042
			PM	08/28/19	12.7	B	18.8	B	6.4	0.058
4	Chesbro Avenue and Blossom Hill Road	D	AM	08/28/19	18.6	B	18.4	B	-0.1	0.004
			PM	08/28/19	28.1	C	27.8	C	-0.2	0.006
5	Cahalan Avenue and Blossom Hill Road	D	AM	08/28/19	21.8	C	21.7	C	-0.1	0.003
			PM	08/28/19	29.8	C	29.6	C	-0.1	0.006
6	Santa Teresa Boulevard and Blossom Hill Road *	D	AM	08/28/19	35.2	D	35.1	D	0.0	0.001
			PM	12/04/18	36.9	D	36.9	D	0.0	0.004

Legend  
 \* Denotes CMP Intersection  
 Bold indicates unacceptable level of service.

### Intersection Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a noteworthy number of trips to the left-turn movements. For the purpose of this analysis, a noteworthy number of trips equates to 10 trips or more per lane. Based on this threshold and the project trip assignment, the eastbound and southbound left-turn movements at the signalized project driveway (Indian Avenue/Project Driveway and Blossom Hill Road intersection) were examined as part of the intersection queuing analysis for this project.

The result of the queuing analysis show that adequate vehicle storage would be provided to accommodate the 95<sup>th</sup> percentile vehicle queues (maximum queues) that would develop for both left-turn movements under project conditions (see Table 6).

It is important to note that the 95<sup>th</sup> percentile queue for the eastbound left-turn pocket is estimated to increase to 4 vehicles in length (double in length) as a result of the project, which would fill the short 100-foot left-turn pocket. A queue of 5 vehicles or more would spill out into the adjacent eastbound through lane on Blossom Hill Road. In order to avoid this potential operational issue, the eastbound left-



turn pocket would need to be lengthened. However, the adjacent westbound left-turn pocket on Blossom Hill Road at Chesbro Avenue would need to be shortened in order to achieve this, since these left-turn pockets are situated back-to-back. This is not recommended because, based on field observations, the westbound left-turn pocket at Chesbro Avenue is currently being fully utilized at peak times. If operational issues occur in the future at the eastbound left-turn pocket serving the project site, signal timing changes should be considered.

**Table 6**  
**Intersection Queuing Analysis Summary**

Measurement	Indian Avenue/Project Driveway & Blossom Hill Road			
	EB LT		SB LT	
	AM	PM	AM	PM
<b>Existing / Background <sup>4</sup></b>				
Cycle/Delay <sup>1</sup> (sec)	140	160	140	160
Volume (vphpl)	18	11	19	88
95th % Queue (veh/ln.)	2	2	2	7
95th % Queue (ft./ln.) <sup>2</sup>	50	50	50	175
Storage (ft./ln.) <sup>3</sup>	100	100	175	175
Adequate (Y/N)	Y	Y	Y	Y
<b>Background Plus Project</b>				
Cycle/Delay <sup>1</sup> (sec)	140	160	140	160
Volume (vphpl)	29	36	70	127
95th % Queue (veh/ln.)	3	4	6	10
95th % Queue (ft./ln.) <sup>2</sup>	75	100	150	250
Storage (ft./ln.) <sup>3</sup>	100	100	300	300
Adequate (Y/N)	Y	Y	Y	Y
<b>Notes:</b>				
<sup>1</sup> Vehicle queue calculations based on cycle length.				
<sup>2</sup> Assumes 25 Feet Per Vehicle Queued.				
<sup>3</sup> Storage Length represents the length of turn pocket or the distance to the closest driveway or cross street.				
<sup>4</sup> There are no approved trips for these intersections; thus, volumes would not change between Existing conditions and Background conditions.				

## Freeway Ramp Operations

### Freeway On-Ramps

An evaluation of metered freeway on-ramps providing access to northbound SR 85 from the project site was performed to identify the effects of the addition of project traffic on the vehicle queues at the metered on-ramps. The two freeway on-ramps listed below in the project study area are currently metered during the AM peak hour. No freeway on-ramps in the project study area are metered during the PM peak hour.

- SR 85 northbound diagonal on-ramp from westbound Blossom Hill Road
- SR 85 northbound loop on-ramp from eastbound Blossom Hill Road



### **SR 85 Northbound Diagonal On-Ramp from Westbound Blossom Hill Road**

Based on field observations, long vehicle queues develop along westbound Blossom Hill Road during the AM peak hour as a result of the disproportionate lane usage due to the metered SR 85 northbound on-ramp. All the vehicles preparing to enter northbound SR 85 use the outside through lane (curb lane) on westbound Blossom Hill Road. The longest vehicle queue nearly extended to Snell Avenue. However, a vehicle queue of this length occurred only once during the AM observation period. Typical vehicle queues observed during the AM peak hour were half this length or less and cleared the intersection in one signal cycle. The vehicle queue on the SR 85 northbound diagonal on-ramp frequently filled the on-ramp due to the metering light, but the queue never affected intersection operations. Since the project would not add any trips to this on-ramp, the project would have no effect on the operation of this on-ramp.

### **SR 85 Northbound Loop On-Ramp from Eastbound Blossom Hill Road**

Based on field observations, no vehicle queuing issues were observed on this on-ramp. It is estimated that the project would add 29 AM peak hour vehicle trips to the loop on-ramp, which equates to about 1 trip every two minutes during the AM peak hour. Based on an existing ramp volume of 444 AM peak hour vehicle trips, this represents a volume increase of about 6.5 percent. Therefore, it can be concluded that the project would not noticeably increase the vehicle queue or delay for the SR 85 northbound loop on-ramp during the AM peak hour.

### **SR 85 Southbound Off-Ramp to Blossom Hill Road**

An evaluation of the southbound SR 85 off-ramp to Blossom Hill Road was prepared to identify the effect of the addition of project traffic on the vehicle queues and delay on the off-ramp. Based on field observations, a long vehicle queue develops on the off-ramp due to the heavy traffic volume exiting the freeway during the PM peak hour. The queue occasionally extends back to where the second lane begins on the off-ramp. It is estimated that the project would add 27 PM peak hour vehicle trips to the southbound right-turn movement (shared through/right-turn lane) on the off-ramp (about 1 trip every two minutes). Based on a volume of 640 PM peak hour vehicle trips currently utilizing the single shared lane, this represents a volume increase of about 4 percent. According to the TRAFFIX intersection level of service calculation for this movement, the project would increase the southbound shared through/right-turn lane vehicle queue by two vehicles in length and would increase the vehicle delay for this movement by 2.1 seconds per vehicle. Therefore, it can be concluded that the project would not substantially increase the vehicle queue or delay for the shared through/right-turn movement on the SR 85 southbound off-ramp during the PM peak hour.

The TRAFFIX level of service calculation sheets are contained in Appendix C.

## **Site Access and On-Site Circulation**

The site access and circulation evaluations are based on the August 19, 2020 site plan prepared by HMM Engineers (see Figure 2 in Chapter 1). Site access was evaluated to determine the adequacy of the site's driveways with regard to the following: traffic volume, delays, vehicle queues, sight distance, and geometric design. On-site vehicular circulation and parking layout were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

### **Site Access and Project Driveways**

Vehicular access to the project site would be provided via a full-access signalized driveway on Blossom Hill Road. The main north-south drive aisle on site would be realigned and would provide access to both residential buildings and to the VTA surface parking lot and passenger loading area (i.e., Kiss & Ride). Parking for residents of the market rate apartments and affordable apartments would be provided via a parking garage within Building A, located on the east side of the main drive aisle. The

project plans to retain 212 surface parking spaces to serve VTA users on the northwest portion of the site adjacent to the LRT station access tunnel.

The site plan shows two designated areas for short-term loading activities along the main north-south drive aisle. One is situated adjacent to the west side of Building A and the other is situated adjacent to the east side of Building B. As proposed, these loading zones would be used for passenger loading, residential move-in/move-out, and deliveries. An additional freight loading zone is provided adjacent to Building A on the north side of the garage entrance between the building and the transit plaza.

### **Project Driveway Volumes and Operations**

According to the site plan provided, the main two-way drive aisle would consist of one 12-foot-wide inbound lane and one 10-foot-wide outbound lane. The single outbound lane would widen to two lanes as it approaches the signal at Blossom Hill Road and consists of a 10-foot southbound left-turn lane and a 12-foot southbound right-turn lane. Based on the proposed improvements, the proposed driveway would be much narrower than the existing driveway. However, large vehicles including trucks and emergency vehicles could adequately access the site due to the large radii of the curb returns at the driveway.

The AM and PM peak hour project-generated trips that are estimated to occur at the project driveway on Blossom Hill Road are shown previously on Figure 11. Since the site provides parking for and access to the Blossom Hill LRT station, the existing AM and PM peak hour trips attributable to LRT users are shown previously on Figure 12. The total future AM and PM peak hour trips estimated to occur at the driveway with the project are shown on Figure 13.

As indicated by the detailed intersection level of service calculations (see Appendix C), the outbound movements at the driveway would operate at LOS E during the AM peak hour and LOS D during the PM peak hour due to the delays drivers would experience when exiting the site. The eastbound left-turn movement (inbound movement) would operate at LOS E during both the AM and PM peak hours. The deficient level of service (LOS E) for these specific turning movements stems from the fact that the intersection has a relatively long cycle length, and because the majority of green time is assigned to the through movements on Blossom Hill Road since they carry heavy traffic volumes. Note that the average vehicle delay (weighted average) at the intersection calculates to LOS B under project conditions during both the AM and PM peak hours (see Table 5). Note also that adequate vehicle queuing space would be provided for all inbound and outbound movements at the signalized project driveway (see Table 6).

### **Reduced Driveway Width Configuration**

Based on the relatively low number of vehicles exiting the site during most periods of the day, the project driveway would operate adequately with only one outbound lane (shared right/left-turn lane configuration) instead of two outbound lanes (separate left-turn and right-turn lanes) as currently proposed. However, with a single outbound lane right-turning vehicles would experience more delay when exiting the site because right turns on red would not be possible. In addition, on-site vehicle queuing would increase. The maximum (95<sup>th</sup> percentile) outbound vehicle queue is estimated to be 325 feet in length and would occur during the weekday PM peak hour of traffic. A vehicle queue of this length would extend back into the four-way intersection and affect on-site operations. As previously shown in Table 6, 300 feet of on-site vehicle queuing space would be provided between Blossom Hill Road and the four-way intersection. Therefore, while a single outbound lane would provide adequate capacity most of the time, two outbound lanes would operate more efficiently during the peak traffic periods of the day. With either driveway configuration, the overall width and resulting pedestrian crossing distance would be reduced compared to existing conditions.

### **Sight Distance at the Project Driveway**

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 Blossom Hill Road. Any landscaping and signage should be positioned in such a way to ensure an unobstructed view for drivers exiting the site. 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 considered the Caltrans stopping sight distance. Sight distance requirements vary depending on roadway speeds. For driveways on Blossom Hill Road, which has a posted speed limit of 40 mph, the Caltrans stopping sight distance is 360 feet (based on a design speed of 45 mph). Accordingly, a driver must be able to see 360 feet along Blossom Hill Road in order to stop and avoid a collision.

According to the landscape plan, the project plans to remove all the existing street trees along the project frontage on Blossom Hill Road and replace them with new street trees. Like the existing trees, the new trees would have a high canopy and drivers exiting the signalized project driveway would continue to have an unobstructed view. Furthermore, the project is not proposing to add any signage or artwork along Blossom Hill Road that could negatively affect sight distance. Therefore, adequate stopping sight distance would continue to be provided at the signalized project driveway.

### **On-Site Vehicular Circulation and Parking Layout**

On-site vehicular circulation was reviewed in accordance with the City of San Jose Zoning Code and generally accepted traffic engineering standards. The proposed site plan would provide adequate vehicular circulation throughout the surface parking areas and residential parking garage.

As previously described, the main north-south drive aisle would be realigned and would provide full site access. An east-west drive aisle would intersect the main north-south drive aisle in the middle of the site. All vehicles that enter the site would pass through the intersection and either turn right to enter the residential parking garage (Building A), drive straight to access the Kiss & Ride passenger loading area and VTA surface parking, or turn left to access the affordable residential spaces (4 spaces adjacent to Building B) and VTA surface parking area. The site plan does not indicate the proposed method of traffic control at the intersection. Hexagon recommends all-way stop control be installed.

**Recommendation:** Install an all-way stop at the internal four-way intersection.

### **VTA Passenger Loading and Parking**

A passenger loading zone (Kiss & Ride) would be provided adjacent to the transit plaza and LRT station access point. The loading zone would provide approximately 80 feet of passenger loading space or room for about 4 vehicles. The proposed amount of curb space would be more than adequate to accommodate the anticipated VTA passenger loading operations.

The large surface lot on the northwest portion of the site would provide parking for VTA users. The site plan shows 90-degree parking stalls throughout the surface parking lot. The two-way drive aisles within the surface lot are shown to be 24 feet wide and would be adequate to allow vehicles to navigate through the lot and maneuver in and out of the parking spaces. Circulation throughout the VTA surface lot would be adequate with no dead-end aisles. The parking lot design is subject to VTA review and approval.

### **Residential Parking Garage Circulation**

The parking garage serving the residents of Buildings A and B would have two levels of parking: one ground level (see Figure 14) and one above ground level (see Figure 15). Together, the parking levels would provide 323 vehicle spaces and 54 motorcycle spaces, according to the site plan provided.

Note that prior to building permit issuance, the market rate developer and the affordable housing developer would enter into a shared parking agreement. The agreement would include the number and location of parking spaces within the garage allocated to residents of the affordable housing development, consistent with the Planning approvals.

**Recommendation:** Implement a shared parking agreement between the market rate developer and the affordable housing developer prior to issuing the building permits.

Based on the site plan, residents would access the ground level of the parking garage directly via a 24-foot-wide driveway accessed from the main drive aisle. No security gate would be provided, according to the site plan. The second parking level would be accessed via an internal ramp located on the ground parking level. Although not indicated on the site plan, it is assumed that all parking for the ground floor retail uses would be provided on the first level of the parking garage.

Level two of the parking garage would contain 23 tandem parking stalls (spaces for 46 vehicles). Since all parking for the retail uses would be provided on the ground level of the garage, the tandem parking stalls would be used by residents only. Thus, no conflicts between residents and retail customers would occur at the tandem parking stalls. The tandem stalls should be assigned to individual residential units.

**Recommendation:** Assign all residential tandem parking stalls to individual residential units.

The project would provide 90-degree parking stalls throughout both parking levels. The two-way drive aisles within the garage are shown to be 24 feet wide and would be adequate to allow vehicles to navigate both levels of the garage and maneuver in and out of parking spaces. However, the City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. Thus, the project should confirm with City of San Jose Public Works staff that the proposed 24-foot drive aisle width is acceptable.

**Recommendation:** Work with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.

Level 1 of the parking garage would contain two dead-end drive aisles. Level 2 would also contain two dead-end drive aisles. Vehicular circulation on both levels of the parking garage would be adequate, and three of the four dead-end drive aisles would be very short. Note that dead-end drive aisles are common in residential parking garages and typically are not problematic.

The internal 24 feet wide drive aisles and garage ramp were evaluated for vehicle access by the method of turning-movement templates. Analysis using the Passenger Car turning templates shows that small and large passenger vehicles (turning templates "Pm" and "P", respectively) could adequately negotiate through the site and access the ramp. However, drivers of both small and large vehicles would have difficulty negotiating the hairpin turn (right turn) required when accessing the ramp from the garage entrance. The right-turn (up) movement at the bottom of the ramp would require additional drive aisle width to complete the turn (i.e., vehicles would encroach upon the opposing/down lane), resulting in potential conflicts between inbound and outbound vehicles. Thus, a larger radius, wider ramp, and/or reoriented ramp is recommended to better serve inbound vehicles. In addition, convex mirrors should be located at the top and bottom of the ramps and all blind corners of the parking garage to eliminate blind spots for vehicles making these turns within the garage.

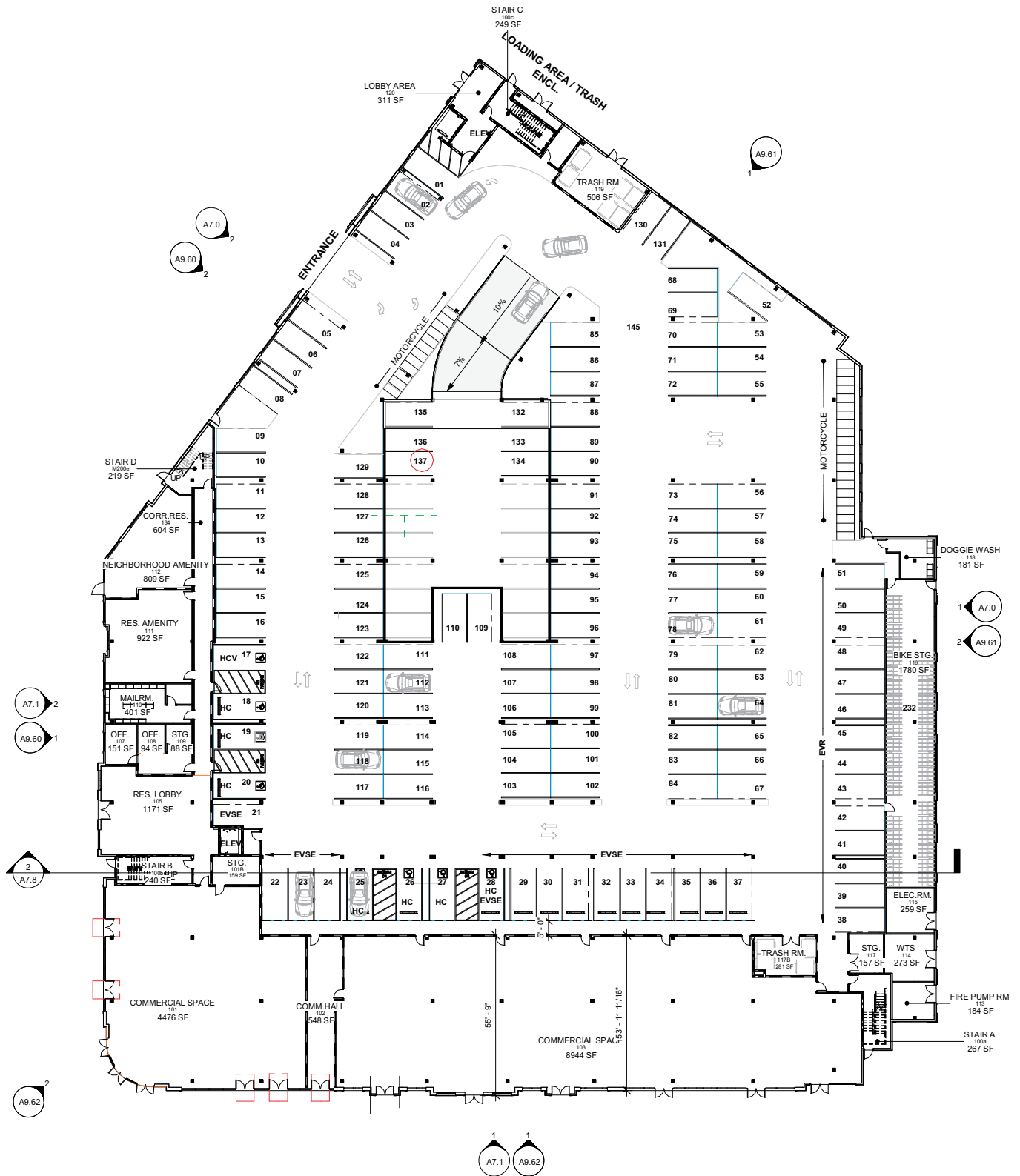


Figure 14  
Level 1 Parking Plan

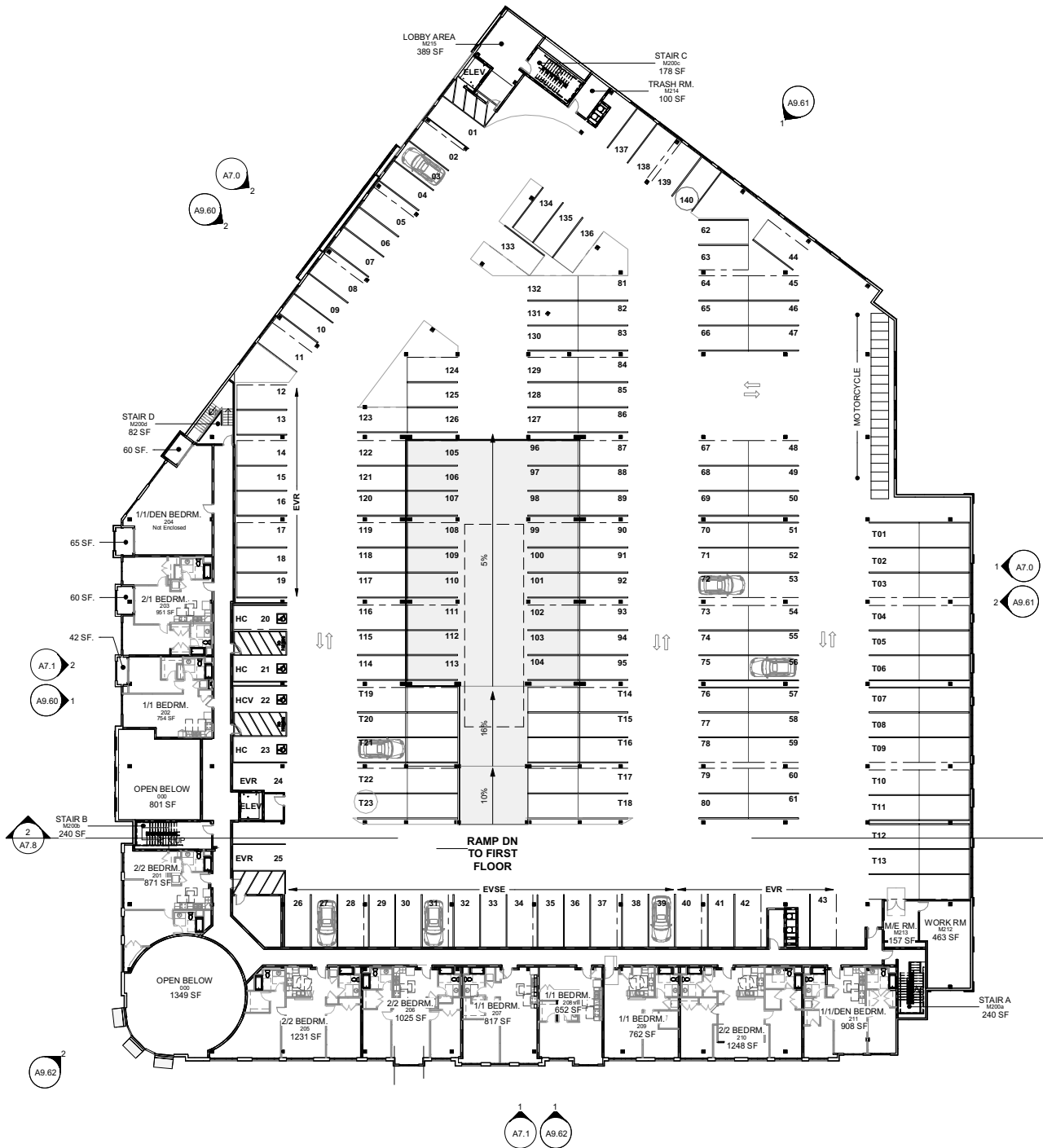


Figure 15  
Level 2 Parking Plan



**Recommendation:** Provide a larger radius at the bottom of the ramp, widen the ramp, and/or reorient the ramp to better serve inbound (right turning) vehicles.

**Recommendation:** Install convex mirrors at all the blind corners of the parking garage to eliminate blind spots for vehicles making turns on both parking levels of the garage.

### **Garage Ramp Slope**

Typical engineering design standards require garage ramps to have no greater than a 20 percent grade with transition grades of half the maximum grade (10 percent or less). The project site plan shows a maximum slope of 16 percent, with a 10 percent transition grade at the top of the ramp and a 5 percent transition grade at the bottom of the ramp. Thus, the garage ramp meets the recommended design standards.

### **Off Street Parking Stall Dimensions**

The City's off-street parking design standard for 90-degree uniform parking stalls is 8.5 feet wide by 17 feet long. It appears all the standard parking stalls shown on the site plan (surface parking and garage parking) would meet this design standard. All compact stalls are shown to be 8 feet wide by 16 feet long, which also meets the City's standard. The accessible ADA stalls all measure 8 feet wide by 20 feet long and include access aisles of 5 feet or more for van accessibility.

### **Truck Access and Circulation**

The project site plan was reviewed for truck access using truck turning-movement templates for a SU-30 truck type, which represents small emergency vehicles, garbage trucks, and small to medium delivery trucks. Based on the site plan configuration, adequate access would be provided for SU-30 trucks to access the site via the project driveway, maneuver through the site, and access the loading zones. Trucks would not have access to the Building A parking garage.

### **Residential Move-In and General Loading Operations**

The site plan shows two designated areas for short-term loading activities along the main north-south drive aisle. One is situated adjacent to the west side of Building A (market rate apartments) and the other is situated adjacent to the east side of Building B (affordable apartments). As proposed, these loading zones would be used for passenger loading, residential move-in/move-out, and deliveries. An additional freight loading zone is provided adjacent to Building A on the north side of the garage entrance between the building and the transit plaza and would be used for move-in/move-out and loading/delivery purposes. The loading zones would be conveniently located near the residential lobbies, elevators and stairwells.

### **Garbage Collection**

Garbage collection activities for the project would occur on site. The site plan shows three trash rooms. One trash room would be located at the northernmost end of Building A. This residential trash room would be located within the building, but truck access would be provided from outside the building. A second trash room would be located at the southeast corner of Building A, adjacent to the retail uses. This retail trash room would be located within the building with no external access provided. For this reason, the retail trash bins would need to be wheeled out to the residential trash staging area on the north side of Building A on garbage collection days. The third trash room would be located on the north end of Building B. This residential trash room would be located within the building, but external truck access would be provided.

## Emergency Vehicle Access

In addition to the standard on site drive aisles provided, additional emergency vehicle access (EVA) would be provided along the eastern boundary of the site between Building A and the SR 85 SB off-ramp. A 26-foot-wide driveway on Blossom Hill Road would provide EVA to and from the fire access road and would be adequate to accommodate the types of emergency vehicles that may need to access the site. A mountable curb is proposed at the EVA driveway so that it is not confused with a standard driveway entrance. In addition, the EVA driveway should be gated or have removable bollards to prevent non-emergency vehicles from using the driveway. The site plan does not show a gate or bollards.

**Recommendation:** Provide a gate or removable bollards at the EVA driveway to prohibit unauthorized vehicular access.

According to Section 504.8 of the Caltrans Highway Design Manual (HDM), access control (e.g., driveways, public roads, etc.) should be situated at least 50 feet from the end of the curb return of an interchange ramp, or as far as necessary to ensure that entry onto the facility (or driveway) does not impair the operational characteristics of the ramp. According to the site plan, the project EVA driveway is shown to be approximately 25 feet from the end of the curb return/freeway off-ramp. However, the 50-foot Caltrans offset requirement does not apply to limited access situations such as the proposed EVA driveway, which would only serve emergency vehicles and would be gated.

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. All areas of the proposed buildings would be within 150 feet of a fire access road, and adequate vertical clearance would be provided along all drive aisles and fire access roads. The proposed driveway widths shown on the site plan would be adequate to accommodate emergency vehicles.

## 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. As 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 planned truck routes.

Note that the LRT parking on site would be closed during the project's construction period. Accordingly, the project should work with the VTA to identify an adequate temporary parking area for LRT users that is as convenient as possible.

**Recommendation:** Work with the VTA to identify an adequate temporary parking area for LRT users during the project construction phase.

## 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.

### **Pedestrian and Bicycle Facilities**

Pedestrian facilities consist mostly of sidewalks along the streets in the immediate vicinity of the project site. Crosswalks with pedestrian signal heads and push buttons are located at most of the signalized intersections in the study area. Many roadways in the study area have bicycle lanes, including Blossom Hill Road. The project would construct a new bicycle/pedestrian shared-use path along the east side of Canoas Creek adjacent to the western boundary of the project site. In addition, the project would construct a pedestrian path along the eastern boundary of the project site, which would also serve as an emergency vehicle access (EVA) road. The paths would connect and create a half-mile loop trail around the site. Overall, the network of sidewalks and bike lanes would exhibit good connectivity and would provide new residents with safe routes to transit services and other points of interest nearby.

The site plan shows the existing sidewalk on Blossom Hill Road would be reconstructed along the entire project frontage. The new wider sidewalk would include tree wells. The signalized project driveway would also be reconstructed. The planned intersection improvements require signal modifications and include realigning the existing crosswalk on Blossom Hill Road (west leg), adding a crosswalk on the east leg, and adding current ADA compliant curb ramps with truncated domes. 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 planned improvements also include narrowing the width of the driveway from 4 lanes (2 inbound/2 outbound) to 3 lanes (1 inbound/2 outbound), thereby reducing the pedestrian crossing distance. A detailed traffic signal design is being prepared concurrently with this traffic study.

The reconstructed sidewalk on Blossom Hill Road would provide pedestrian access to the ground floor retail uses. The new project driveway would include sidewalks on both sides and would provide pedestrian access to the residential lobbies of Buildings A and B. The sidewalks would extend into the site and ultimately provide safe and efficient circulation throughout the site, including access to the transit plaza and LRT station. The transit plaza would serve as a link between the residential Building A and the Blossom Hill LRT Station.

The site plan shows multiple secure bike room locations would provide a total of 307 on-site bicycle parking spaces. Bicycle parking would be provided on the first floor of the Building A parking garage and adjacent to the west side of Building B. Providing convenient bike parking at multiple locations around the site would help create a bicycle-friendly environment and encourage bicycling by residents of the project. The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities.

The pedestrian and bicycle facilities that would be provided as part of the project would help to encourage walking and biking. 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 the project, particularly if transit is utilized in combination with bicycle commuting.

### **Pedestrian and Bicycle Access to Schools**

Earl Frost Elementary School is located on Gettysburg Drive, which intersects Blossom Avenue approximately  $\frac{1}{4}$  mile south of the project site. Leonard Herman Intermediate School is located about  $\frac{3}{4}$  mile south of the project site on Blossom Avenue. Oak Grove High School is located on Blossom Hill Road approximately 1 mile east of the project site.

Safe and direct pedestrian access to all three schools is provided via a continuous network of sidewalks along the streets in the surrounding area. Crosswalks with pedestrian signal heads are provided at all signalized intersections along the school routes (Blossom Hill Road and Blossom Avenue). Crosswalks are also provided at the unsignalized intersections near the schools. Wheelchair ramps are provided at all corners of the intersections, though some do not meet the current ADA design standards. Adequate bicycle access to all three schools also is provided via striped bike lanes on Blossom Hill Road and Blossom Avenue.

The project should consider working with these nearby schools to implement a Safe Routes to Schools program, or participate in a program if one already exists, since some students attending these schools may reside at the project site. Safe Routes to Schools is designed to decrease traffic and pollution and increase the health of children and the community as a whole. The program promotes walking and biking to school through education and incentives. The program also addresses the safety concerns of parents by encouraging greater enforcement of traffic laws, educating the public, and exploring ways to create safer streets. A comprehensive Safe Routes to Schools program should identify a focused area surrounding the school, provide a map with the routes that children can take to and from school, and recommend improvements to routes if necessary. It should address such pedestrian safety issues as dangerous intersections and missing or ineffective crosswalks and sidewalks.

### **Nearby Parks**

Two parks are located within walking distance of the project site: Cahalan Park located approximately ½ mile southwest of the project site, and Comanche Park located adjacent to Leonard Herman Intermediate School about ¾ mile south of the project site. Cahalan Park is a large 9.5-acre City park that includes a full-size basketball court, two ½-size basketball courts, two softball fields, large grass area used for soccer, two tennis courts, two playgrounds, picnic tables, and restrooms. Comanche Park is a 3-acre City park that includes two playgrounds and a large grass area.

### **Transit Services**

The Blossom Hill LRT Station is located adjacent to the project site and would benefit the project considerably. Due to the convenient location of the Blossom Hill Station, it is reasonable to assume that many 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 Transit-Oriented Development 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 capacities of the transit services in the study area.

The project would retain but reconfigure 212 VTA parking spaces at the northern half of the project site. Since there are 542 existing parking spaces at the Blossom Hill station, this represents a loss of 330 VTA parking spaces.

As part of the site development and reconfiguration, the existing on-site bus stop would be relocated to Blossom Hill Road. The project is proposing to add bus stops with duck-outs on both sides of Blossom Hill Road, approximately midway between the project driveway and the SR 85 southbound off-ramp. Although the site plan does not show much detail, it does appear to show that a VTA-standard 55-foot bus pad would be provided at each stop. The new bus stops should include standard signage, benches, and shelters with solar panels.

The project applicant should coordinate with VTA staff regarding the exact location and design of each bus stop, including the proposed duck-outs. Additionally, a signal modification may be needed at the SR 85 SB Off-Ramp/Blossom Hill Road intersection to implement the proposed curb line work associated with the duck-out design along the project frontage on Blossom Hill Road.

**Recommendation:** Coordinate with the Santa Clara VTA to determine the exact location and design features of each bus stop on Blossom Hill Road, including the proposed duck-outs and bus pads.

**Recommendation:** Coordinate with the Santa Clara VTA and Caltrans to determine if a signal modification is needed at the SR 85 SB Off-Ramp/Blossom Hill Road intersection to implement the proposed curb line work associated with the duck-out design along the project frontage on Blossom Hill Road.

## Vision Zero San Jose

The segment of Blossom Hill Road between Meridian Avenue and US 101 has been identified as a Vision Zero Corridor (*Vision Zero San Jose*, April 2015). The goal of Vision Zero San Jose is to create a community culture that prioritizes traffic safety. Vision Zero is designed to create policies that focus on roadway safety for all modes, particularly non-automobile modes. Streets with these “Safety Priority Street” designations are given priority within the City’s Transportation Capital Improvement Program (CIP) to provide safer transportation systems for all users.

### Blossom Hill Road Improvements

Recent improvements to Blossom Hill Road between Meridian Avenue and US 101 include upgrading streetlights to LED lighting. Planned improvements include adding safe routes for walking and bicycling at the US 101/Blossom Hill Road interchange overpass and further evaluation of safety issues to determine other feasible improvements along the Blossom Hill corridor.

## Parking

### Residential Vehicle Parking

The City of San Jose’s off-street parking requirements as described in the City’s Zoning Code (Chapter 20.90, Table 20-210) for multiple dwellings with all open parking are as follows: 1.25 parking spaces for studio and one-bedroom units, 1.7 parking spaces for two-bedroom units, and 2.0 parking spaces for three-bedroom units. Based on the City’s off-street parking requirement and prior to applying any relevant parking reductions, the 328-unit project would require a total of 449 parking spaces calculated as follows:

#### Market Rate Units

- 188 studio/one-bedroom units x 1.25 spaces = 235 parking spaces
  - 51 two-bedroom units x 1.7 spaces = 87 parking spaces
- Total # of Spaces Required for the Market Rate Units = 322 spaces

#### Affordable Units

- 59 studio/one-bedroom units x 1.25 spaces = 74 parking spaces
  - 23 two-bedroom units x 1.7 spaces = 39 parking spaces
  - 7 three-bedroom units x 2.0 spaces = 14 parking spaces
- Total # of Spaces Required for the Affordable Units = 127 spaces

### Residential Parking Reduction for Proximity to a Major Transit Station

Since the project site is located within 2,000 feet of an existing rail station (Blossom Hill Station), the project qualifies for a 20 percent reduction in the City’s parking requirement. After applying a 20 percent



parking reduction, the project would be required to provide a total of 360 residential parking spaces, consisting of 258 spaces to serve the market rate units and 102 spaces to serve the affordable units.

### **Parking Reduction for Affordable Housing Component**

On October 9, 2015 Assembly Bill 744 (AB 744) was signed by Governor Brown which prevents local jurisdictions from imposing vehicular parking requirements higher than those established by the legislation, upon the request of a developer, provided that the project includes enumerated percentages of affordable housing and is located near designated public transit. AB 744 states that for 100% affordable housing developments located within one-half mile of a major transit stop, the parking requirement cannot exceed 0.5 spaces per unit. The project is located adjacent to the Blossom Hill Station and includes 89 affordable apartment units. After applying the reduced parking rate of 0.5 spaces per unit, 45 parking spaces (not 102 spaces) would be required to serve the affordable residential units.

### **Proposed Residential Parking Supply**

The project is proposing to provide a total of 323 residential parking spaces within the Building A parking garage to serve the market rate apartments (282 spaces) and the majority of the affordable apartments (41 spaces). Four additional affordable residential parking spaces would be provided within the surface lot adjacent to Building B. Thus, the project would provide a total of 327 residential parking spaces. After applying the appropriate parking reductions previously discussed, the project would exceed the City's residential parking requirement of 303 spaces.

Note that prior to building permit issuance, the market rate developer and the affordable housing developer would enter into a shared parking agreement. The agreement would include the number and location of parking spaces within the garage allocated to residents of the affordable housing development, consistent with the Planning approvals.

### **Retail Vehicle Parking**

The City of San Jose vehicle parking requirement for retail/commercial uses located within Urban Villages was applied to the project and is 1 space per 400 s.f. (per Section 20.90.220.C.1 of the City's Zoning Code). Based on this parking requirement, the project would require 57 parking spaces to serve the 22,595 s.f. of ground-floor retail space that is being proposed ( $22,595 \text{ s.f.} / 400 = 56.5 \text{ spaces}$ ).

The site plan does not indicate whether the project would provide separate parking within the garage for the retail uses. Thus, it is assumed that the project intends to have the retail users share parking spaces (at least some spaces) with residents, though this has not been confirmed. Although shared parking between residential and retail uses is common since the parking demand for these land uses peak at different times, it is not known how parking would be allocated or enforced between the residents and the retail employees and customers.

**Recommendation:** Provide adequate vehicular parking for the retail component of the project in accordance with the City of San Jose's Zoning Code.

### **VTA Vehicle Parking**

The project would retain but reconfigure 212 VTA parking spaces at the northern half of the project site. Since there are 542 existing parking spaces at the Blossom Hill station, this represents a loss of 330 VTA parking spaces.

**Recommendation:** Coordinate with the Santa Clara VTA to determine whether 212 parking spaces would be adequate to serve the anticipated VTA parking demand.



## Motorcycle and Bicycle Parking

The City requires one motorcycle parking space for every four residential units and one motorcycle parking space per every 20 code-required retail vehicle parking spaces (per Chapter 20.90, Tables 20-190, 20-210 and 20-250 of the City's Zoning Code). This equates to 82 residential motorcycle spaces and 3 retail motorcycle spaces. Applying a 20 percent reduction to the residential component of the project (Urban Village reduction) equates to a total parking requirement of 69 motorcycle spaces.

According to the site plan, it appears the project is proposing to provide 54 motorcycle parking spaces: 33 motorcycle spaces on garage level 1 and 21 motorcycle spaces on garage level 2. Thus, based on the site plan review the project would have a motorcycle parking deficit of 15 spaces.

**Recommendation:** Provide adequate motorcycle parking in accordance with the City of San Jose's Zoning Code.

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 a total of 90 bicycle parking spaces: 82 bicycle spaces to serve the residential use and 8 bicycle spaces to serve the retail use.

According to the site plan, the project is proposing to provide 307 bicycle parking spaces, which would exceed the City's bicycle parking requirements. The site plan shows bicycle parking would be provided in a secure storage room (232 bicycle spaces) located on the first floor of the Building A parking garage, as well as a secure storage room (75 bicycle spaces) located outside of Building B.

## 5. Conclusions

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This report presents the results of the transportation analysis conducted for a proposed transit-oriented development (TOD) at 605 Blossom Hill Road in San Jose, California. The 7.42-acre project site, located between Canoas Creek and the SR 85 southbound off-ramp, is currently developed with a surface parking lot, VTA bus stop, and VTA light rail transit (LRT) station.

This study was conducted for the purpose of identifying the potential transportation impacts 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* (April 2018). Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the project includes a California Environmental Quality Act (CEQA) level Transportation Analysis (TA) and a Local Transportation Analysis (LTA). 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 six signalized intersections in the vicinity of the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access.

The effects of the project on freeway segments were evaluated in accordance with the methodologies described in the Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

### CEQA Transportation Analysis

The project VMT estimated by the City's VMT Evaluation Tool is 13.37 per capita. The project VMT, therefore, exceeds the threshold of 10.12 VMT per capita. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold (such as the project study area) are referred to as being in "high-VMT areas", and 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.

### Project Impact

Since the VMT generated by the project would exceed the threshold of significance for residential uses in the area, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

## Project Mitigation

Based on the four VMT reduction strategy tiers included in the VMT Evaluation Tool, it is recommended that the project implement pedestrian network improvements and increase transit accessibility (Tier 2 strategies), as well as implement a Transportation Demand Management (TDM) Plan (various Tier 4 strategies) to mitigate the significant VMT impact. The following Tier 2 and Tier 4 VMT reduction strategies, as described in detail in Chapter 3, are recommended to mitigate the significant VMT impact:

1. **Pedestrian Network Improvements (Tier 2)**
2. **Increase Transit Accessibility (Tier 2)**
3. **School Pool Program (Tier 4)**
4. **Subsidized Transit Program (Tier 4)**
5. **Voluntary Travel Behavior Change Program (Tier 4)**
6. **On-Site TDM Administration and Services (Tier 4)**

Based on the City's VMT Evaluation Tool, implementing the multimodal infrastructure improvements and TDM measures described above would lower the project VMT to 11.88 per capita. This represents a reduction of 20% compared to the area VMT and is the maximum reduction possible. Since the project VMT would remain above the City's threshold of 10.12 VMT per capita with mitigation, the VMT impact is considered unmitigable. Therefore, the project would result in a significant and unavoidable VMT impact.

To address the unmitigable project impact, City Council would need to adopt a statement of overriding considerations. The override would apply to the VMT that cannot be mitigated ( $11.88 - 10.12 = 1.76$  VMT) and would be in the form of either the construction or funding of multi-modal improvements. The base override fee for residential projects was established in March of 2018 when Council Policy 5-1 was originally adopted and is \$2,300 per VMT not mitigated per resident. According to the City of San Jose Land Use Assumptions for the 2020 General Plan Four-Year Review, there are approximately 3 residents per household within the City. The override fee is subject to an annual escalation on January 1<sup>st</sup> in line with the Engineering News-Record Construction Cost Index (ENR CCI) for San Francisco. The 2019 and 2020 ENR CCIs for San Francisco are +0.8% and +5.7%, respectively. Thus, based on a 2019 override fee of \$2,318, the 2020 override fee amounts to \$2,450.

Note that since the affordable housing component of the project would meet all the screening criteria outlined in the City's *Transportation Analysis Handbook* for "Restricted Affordable Residential Projects or Components", the affordable housing component of the project (89 affordable apartment units) is exempted from the override VMT fee calculation.

Based on the current override fee the project, which includes up to 239 market rate residential units, would be required to pay a VMT impact fee of \$3,091,704 as follows:

$$\text{VMT Impact Fee: } \$2,450 \times 1.76 \text{ VMT} \times (239 \text{ units} \times 3 \text{ residents per unit}) = \$3,091,704$$

City staff have indicated that the project will be required to implement improvements that are equal to the total VMT impact fee amount. A final list of improvements and associated cost estimates will be prepared as part of the conditions of approval for the project.

## Local Transportation Analysis

### Project Trip Generation

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip adjustments and reductions, the project would generate 1,768 new daily vehicle trips, with 102 new

trips occurring during the AM peak hour and 139 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 32 new inbound and 70 new outbound trips during the AM peak hour, and 80 new inbound and 59 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

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

#### Recommendations

- Install an all-way stop at the internal four-way intersection.
- Work with City staff to confirm the 24-foot drive aisle widths within the parking structure are acceptable.
- Implement a shared parking agreement between the market rate developer and the affordable housing developer prior to issuing the building permits.
- Assign all residential tandem parking stalls to individual residential units.
- Provide a larger radius at the bottom of the ramp, widen the ramp, and/or reorient the ramp to better serve inbound (right turning) vehicles.
- Install convex mirrors at all the blind corners of the parking garage to eliminate blind spots for vehicles making turns on both parking levels of the garage.
- Provide a gate or removable bollards at the EVA driveway to prohibit unauthorized vehicular access.
- Work with the VTA to identify an adequate temporary parking area for LRT users during the project construction phase.
- Coordinate with the Santa Clara VTA to determine the exact location and design features of each bus stop on Blossom Hill Road, including the proposed duck-outs and bus pads.
- Coordinate with the Santa Clara VTA and Caltrans to determine if a signal modification is needed at the SR 85 SB Off-Ramp/Blossom Hill Road intersection to implement the proposed curb line work associated with the duck-out design along the project frontage on Blossom Hill Road.
- Provide adequate vehicular parking for the retail component of the project in accordance with the City of San Jose's Zoning Code.
- Coordinate with the Santa Clara VTA to determine whether 212 parking spaces would be adequate to serve the anticipated VTA parking demand.
- Provide adequate motorcycle parking in accordance with the City of San Jose's Zoning Code.

**Blossom Hill Station TOD TA  
Technical Appendices**

## **Appendix A**

### **Traffic Counts**





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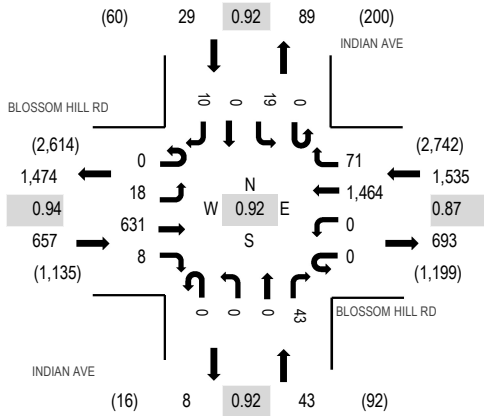
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Date: Wednesday, August 28, 2019

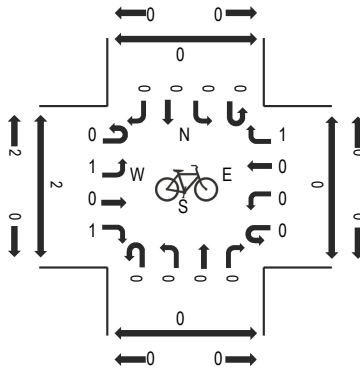
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Peak 15-Minutes: 07:45 AM - 08:00 AM

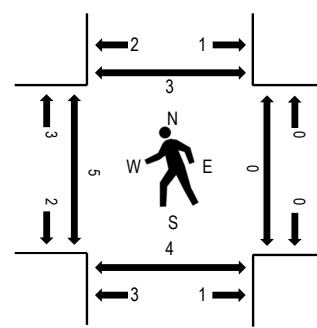
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				INDIAN AVE Northbound				INDIAN AVE 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	7	110	2	0	0	205	22	0	0	0	10	0	4	0	2	362	1,884	2	0	1	1
7:15 AM	1	4	93	1	0	0	299	16	0	0	0	13	0	2	0	5	434	2,061	0	0	0	0
7:30 AM	1	10	103	2	0	0	297	35	0	0	0	15	0	5	0	4	472	2,160	0	0	1	0
<b>7:45 AM</b>	<b>0</b>	<b>5</b>	<b>150</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>411</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>3</b>	<b>616</b>	<b>2,264</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
8:00 AM	0	8	166	1	0	0	327	13	0	0	0	15	0	6	0	3	539	2,145	2	0	0	2
8:15 AM	0	3	167	2	0	0	318	22	0	0	0	15	0	4	0	2	533		0	0	2	0
8:30 AM	0	2	148	4	0	0	408	5	0	0	0	3	0	4	0	2	576		2	0	2	1
8:45 AM	0	4	137	3	0	0	320	13	0	0	0	11	0	3	0	6	497		2	0	2	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	5	0	0	0	5	0	0	0	0	0	0	0	0	0	10
Lights	0	16	608	8	0	0	1,434	63	0	0	0	43	0	11	0	4	2,187
Mediums	0	2	18	0	0	0	25	8	0	0	0	0	0	8	0	6	67
<b>Total</b>	<b>0</b>	<b>18</b>	<b>631</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>1,464</b>	<b>71</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>10</b>	<b>2,264</b>



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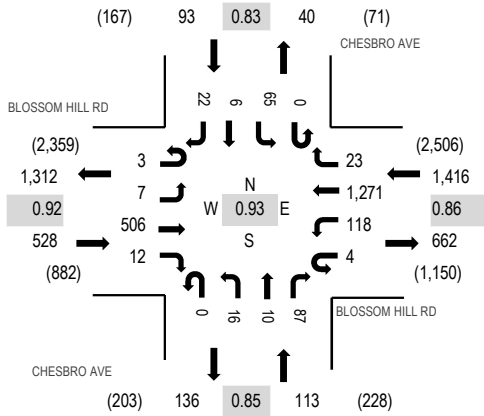
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Date: Wednesday, August 28, 2019

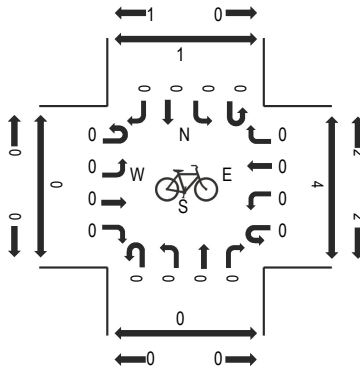
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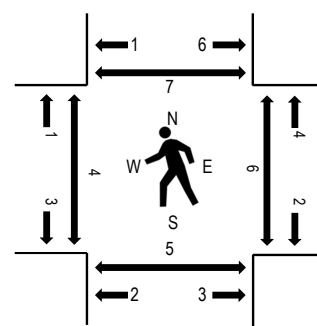
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				CHESBRO AVE Northbound				CHESBRO AVE 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	3	76	2	1	13	172	8	0	4	2	30	0	19	0	4	334	1,698	0	0	2	0
7:15 AM	0	2	72	2	3	11	249	3	0	5	1	16	0	13	0	5	382	1,889	1	1	0	3
7:30 AM	0	1	78	2	1	7	301	4	0	4	0	26	0	7	1	7	439	2,013	1	1	0	1
7:45 AM	0	0	115	3	1	21	340	3	0	8	2	24	0	19	4	3	543	2,150	0	1	0	4
8:00 AM	1	4	138	1	2	33	291	7	0	1	5	19	0	16	0	7	525	2,085	3	1	3	0
8:15 AM	1	1	130	7	0	36	266	6	0	3	2	26	0	22	1	5	506		1	3	1	3
8:30 AM	1	2	123	1	1	28	374	7	0	4	1	18	0	8	1	7	576		0	1	1	0
8:45 AM	1	2	109	4	4	25	285	3	0	5	2	20	0	13	0	5	478		1	1	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	5	0	0	0	4	0	0	0	0	0	0	0	0	0	9
Lights	3	7	484	10	4	117	1,237	22	0	14	10	86	0	63	6	22	2,085
Mediums	0	0	17	2	0	1	30	1	0	2	0	1	0	2	0	0	56
Total	3	7	506	12	4	118	1,271	23	0	16	10	87	0	65	6	22	2,150



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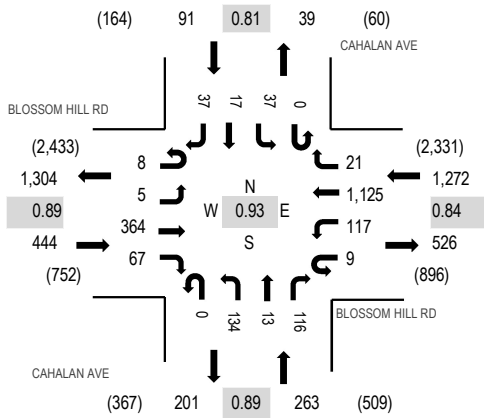
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Date: Wednesday, August 28, 2019

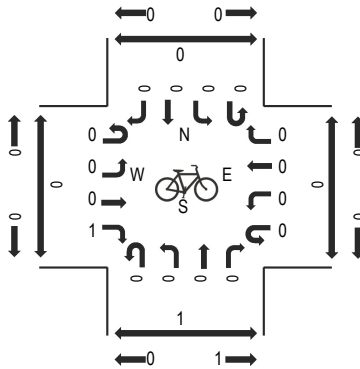
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Peak 15-Minutes: 07:45 AM - 08:00 AM

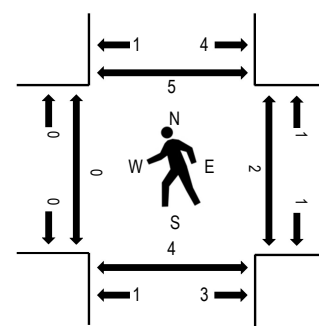
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				CAHALAN AVE Northbound				CAHALAN AVE 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	1	1	57	13	2	17	158	1	0	35	1	25	0	4	0	12	327	1,769	0	1	0	0
7:15 AM	3	1	51	8	0	32	251	2	0	34	0	20	0	0	2	18	422	1,914	0	2	3	1
7:30 AM	3	2	54	13	1	28	271	3	0	39	1	25	0	6	6	13	465	1,991	0	0	0	1
7:45 AM	1	0	87	12	0	21	326	1	0	42	4	30	0	9	9	13	555	2,070	0	1	2	3
8:00 AM	1	4	103	15	2	30	240	2	0	26	2	27	0	11	2	7	472	1,987	0	0	0	0
8:15 AM	3	1	95	26	4	27	235	7	0	40	5	32	0	14	3	7	499		0	0	2	0
8:30 AM	3	0	79	14	3	39	324	11	0	26	2	27	0	3	3	10	544		0	1	0	2
8:45 AM	4	3	87	7	0	38	251	4	0	30	2	34	0	4	2	6	472		0	0	1	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	5	1	0	0	5	0	0	0	0	0	0	0	0	0	11
Lights	8	5	344	62	9	114	1,092	20	0	134	13	108	0	37	17	37	2,000
Mediums	0	0	15	4	0	3	28	1	0	0	0	8	0	0	0	0	59
Total	8	5	364	67	9	117	1,125	21	0	134	13	116	0	37	17	37	2,070



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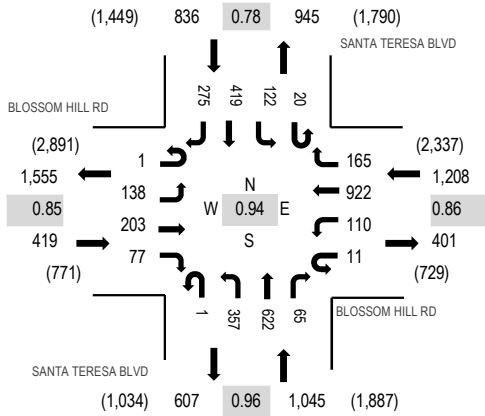
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Date: Wednesday, August 28, 2019

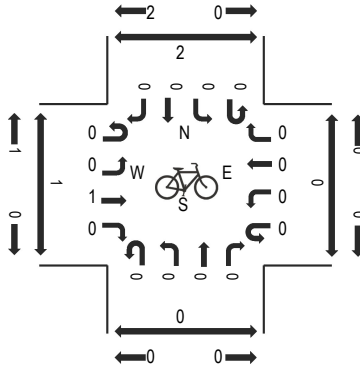
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Peak 15-Minutes: 07:45 AM - 08:00 AM

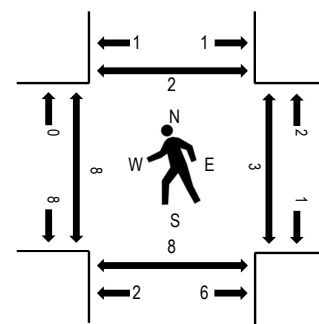
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				SANTA TERESA BLVD Northbound				SANTA TERESA BLVD 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	35	35	7	2	12	202	52	1	56	132	7	0	20	33	36	630	3,145	4	4	0	2
7:15 AM	1	32	25	10	3	22	211	44	1	62	142	8	2	19	68	49	699	3,341	3	3	2	2
7:30 AM	1	27	41	14	2	28	297	45	0	97	157	10	5	25	76	62	887	3,508	1	0	0	0
7:45 AM	0	42	40	20	6	32	281	41	1	91	162	17	2	24	100	70	929	3,490	4	1	1	1
8:00 AM	0	36	66	28	2	17	193	38	0	90	139	24	5	34	89	65	826	3,299	2	1	4	0
8:15 AM	0	33	56	15	1	33	151	41	0	79	164	14	8	39	154	78	866		1	1	3	1
8:30 AM	0	25	62	16	5	31	250	43	1	84	133	17	7	26	94	75	869		2	2	6	0
8:45 AM	0	36	51	17	4	30	181	37	1	60	122	15	3	29	83	69	738		0	1	0	0

### Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	4	4	0	1	0	7	0	0	2	1	0	0	0	2	0	21
Lights	1	131	191	75	9	108	903	161	1	348	615	63	20	118	405	270	3,419
Mediums	0	3	8	2	1	2	12	4	0	7	6	2	0	4	12	5	68
Total	1	138	203	77	11	110	922	165	1	357	622	65	20	122	419	275	3,508



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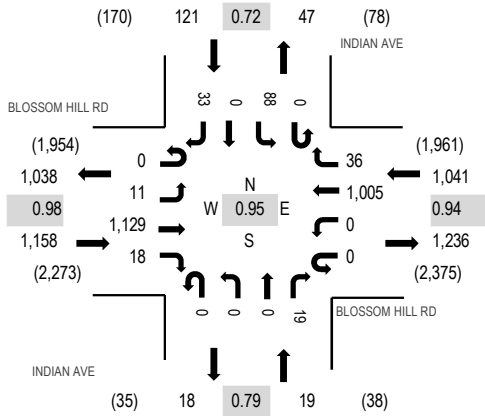
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Date: Wednesday, August 28, 2019

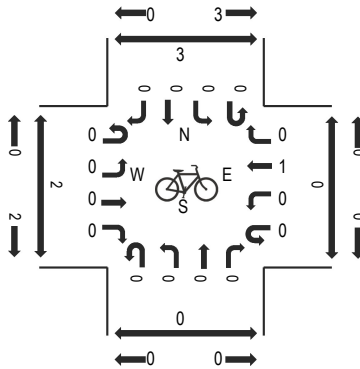
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:45 PM - 06:00 PM

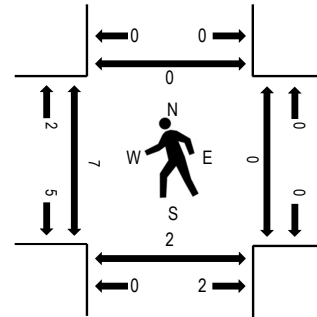
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				INDIAN AVE Northbound				INDIAN AVE 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	259	4	0	0	228	5	0	0	0	6	0	3	1	5	513	2,103	3	0	0	0
4:15 PM	0	3	259	5	0	0	223	4	0	0	0	3	0	10	1	3	511	2,192	1	0	0	0
4:30 PM	0	2	282	3	0	0	235	6	0	0	0	6	0	4	0	5	543	2,285	1	0	1	1
4:45 PM	0	2	291	3	0	0	212	7	0	0	0	4	0	12	0	5	536	2,258	0	0	1	0
5:00 PM	0	4	293	4	0	0	243	13	0	0	0	3	0	30	0	12	602	2,339	0	0	0	0
5:15 PM	0	1	294	3	0	0	271	5	0	0	0	6	0	21	0	3	604		1	0	0	0
5:30 PM	0	4	240	4	0	0	227	10	0	0	0	6	0	15	0	10	516		2	0	1	0
5:45 PM	0	2	302	7	0	0	264	8	0	0	0	4	0	22	0	8	617		4	0	1	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	0	0	1
Lights	0	9	1,126	18	0	0	1,000	29	0	0	0	19	0	80	0	31	2,312
Mediums	0	2	3	0	0	0	4	7	0	0	0	0	0	8	0	2	26
Total	0	11	1,129	18	0	0	1,005	36	0	0	0	19	0	88	0	33	2,339



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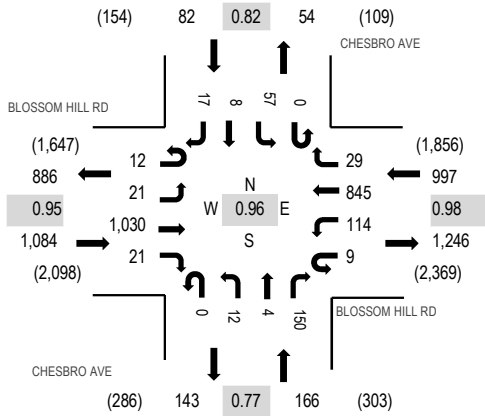
Location: 2 CHESBRO AVE & BLOSSOM HILL RD PM

Date: Wednesday, August 28, 2019

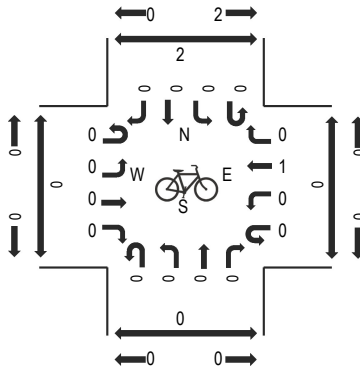
Peak Hour: 05:00 PM - 06:00 PM

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

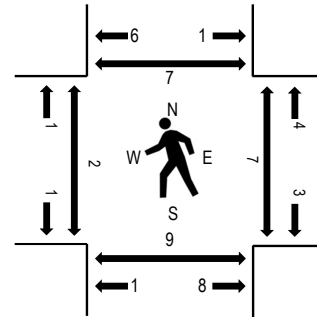
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				CHESBRO AVE Northbound				CHESBRO AVE 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	4	4	227	3	0	31	160	6	0	2	0	26	0	11	1	4	479	2,082	2	5	3	3
4:15 PM	3	4	227	7	4	38	182	9	0	4	0	30	0	11	2	6	527	2,209	0	3	2	1
4:30 PM	0	4	259	2	3	16	199	9	0	4	4	29	0	6	0	10	545	2,262	1	2	0	2
4:45 PM	7	6	248	9	1	30	164	7	0	10	2	26	0	15	4	2	531	2,262	1	3	2	4
5:00 PM	1	4	265	6	1	26	219	8	0	3	1	50	0	17	4	1	606	2,329	0	1	1	0
5:15 PM	7	4	253	5	2	30	214	3	0	3	2	31	0	19	3	4	580		2	5	0	3
5:30 PM	2	7	240	6	2	24	204	9	0	4	1	30	0	11	0	5	545		0	0	2	1
5:45 PM	2	6	272	4	4	34	208	9	0	2	0	39	0	10	1	7	598		0	1	6	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	1	0	0	0	0	0	0	0	0	0	1
Lights	12	21	1,027	21	9	113	840	29	0	12	4	149	0	56	8	16	2,317
Mediums	0	0	3	0	0	1	4	0	0	0	0	1	0	1	0	1	11
Total	12	21	1,030	21	9	114	845	29	0	12	4	150	0	57	8	17	2,329





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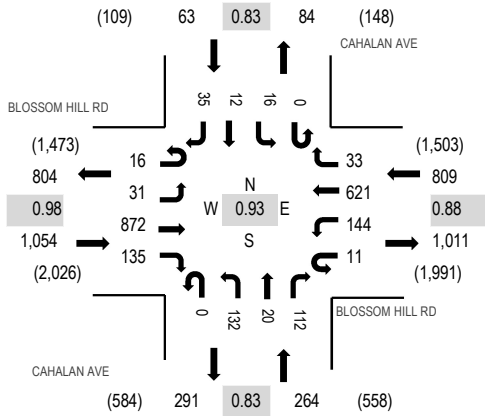
Location: 3 CAHALAN AVE & BLOSSOM HILL RD PM

Date: Wednesday, August 28, 2019

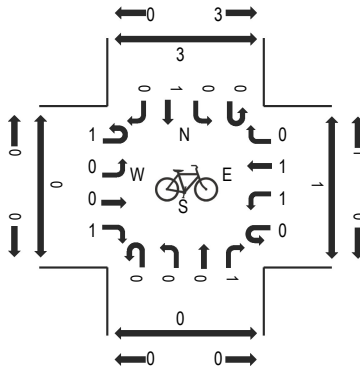
Peak Hour: 05:00 PM - 06:00 PM

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

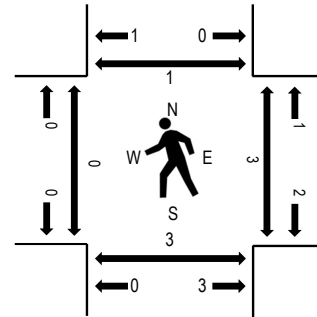
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	BLOSSOM HILL RD Eastbound				BLOSSOM HILL RD Westbound				CAHALAN AVE Northbound				CAHALAN AVE 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	1	5	187	39	1	32	133	7	0	26	1	40	0	4	0	5	481	2,006	0	0	2	0
4:15 PM	7	3	205	36	3	33	127	6	0	47	2	42	0	7	3	5	526	2,081	0	1	3	0
4:30 PM	2	5	178	39	3	47	135	11	0	29	4	34	0	4	1	8	500	2,141	0	0	0	1
4:45 PM	3	6	226	30	0	30	115	11	0	21	3	45	0	1	3	5	499	2,152	0	1	1	1
5:00 PM	4	8	218	39	1	38	149	11	0	32	3	39	0	3	0	11	556	2,190	0	0	0	0
5:15 PM	4	4	229	36	5	38	175	11	0	35	5	25	0	4	7	8	586		0	1	3	1
5:30 PM	3	7	228	27	0	31	145	1	0	28	9	18	0	5	3	6	511		0	1	0	0
5:45 PM	5	12	197	33	5	37	152	10	0	37	3	30	0	4	2	10	537		0	1	0	0

**Peak Rolling Hour Flow Rates**

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Lights	16	31	869	135	11	141	618	33	0	131	20	112	0	16	12	35	2,180
Mediums	0	0	3	0	0	2	3	0	0	1	0	0	0	0	0	0	9
Total	16	31	872	135	11	144	621	33	0	132	20	112	0	16	12	35	2,190

**Appendix B**  
**Volume Summary**

Blossom Hill Station TOD

Intersection Number: **1**  
 Traffic Node Number: 3004  
 Intersection Name: SR 85 NB Off-Ramp & Blossom Hill Road (E)  
**Peak Hour:** **AM** Date of Analysis: 09/15/20  
 Count Date: 12/06/18  
 Scenario: 328 Dwelling Units + 22,595 SF Retail

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	409	0	33	21	1756	0	79	26	184	444	903	119	3974
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	409	0	33	21	1756	0	79	26	184	444	903	119	3974
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	409	0	33	21	1756	0	79	26	184	444	903	119	3974
Bkgrd check	409	0	33	21	1756	0	79	26	184	444	903	119	
<b>Project Trips</b>													
Residential Project Trips	0	0	0	0	4	0	0	0	2	29	13	0	48
Retail Project Trips	0	0	0	0	3	0	0	0	0	0	2	0	5
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	7	0	0	0	2	29	15	0	53
Background + Project Conditions	409	0	33	21	1763	0	79	26	186	473	918	119	4027
Bkgrd+Proj check	409	0	33	21	1763	0	79	26	186	473	918	119	

Intersection Number: **2**  
 Traffic Node Number: 3005  
 Intersection Name: SR 85 SB Off-Ramp & Blossom Hill Road (W)  
**Peak Hour:** **AM** Date of Analysis: 09/15/20  
 Count Date: 12/13/18  
 Scenario: 328 Dwelling Units + 22,595 SF Retail

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	108	303	508	133	969	299	672	0	123	62	583	0	3760
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	108	303	508	133	969	299	672	0	123	62	583	0	3760
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	108	303	508	133	969	299	672	0	123	62	583	0	3760
Bkgrd check	108	303	508	133	969	299	672	0	123	62	583	0	
<b>Project Trips</b>													
Residential Project Trips	10	0	0	0	7	0	0	0	0	0	48	0	65
Retail Project Trips	0	0	0	0	3	0	0	0	2	1	2	0	8
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	10	0	0	0	10	0	0	0	2	1	50	0	73
Background + Project Conditions	118	303	508	133	979	299	672	0	125	63	633	0	3833
Bkgrd+Proj check	118	303	508	133	979	299	672	0	125	63	633	0	

Blossom Hill Station TOD

Intersection Number: **3**  
 Traffic Node Number: 3321  
 Intersection Name: Indian Avenue & Blossom Hill Road  
**Peak Hour:** AM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	10	0	19	71	1464	0	43	0	0	8	631	18	2264
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	10	0	19	71	1464	0	43	0	0	8	631	18	2264
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	10	0	19	71	1464	0	43	0	0	8	631	18	2264
Bkgrd check	10	0	19	71	1464	0	43	0	0	8	631	18	
<b>Project Trips</b>													
Residential Project Trips	16	0	48	17	0	0	0	0	0	0	0	6	87
Retail Project Trips	3	0	3	5	0	0	0	0	0	0	0	5	16
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	19	0	51	22	0	0	0	0	0	0	0	11	103
Background + Project Conditions	29	0	70	93	1464	0	43	0	0	8	631	29	2367
Bkgrd+Proj check	29	0	70	93	1464	0	43	0	0	8	631	29	

Intersection Number: **4**  
 Traffic Node Number: 3316  
 Intersection Name: Chesbro Avenue & Blossom Hill Road  
**Peak Hour:** AM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	22	6	65	23	1271	122	87	10	16	12	506	10	2150
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	22	6	65	23	1271	122	87	10	16	12	506	10	2150
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	22	6	65	23	1271	122	87	10	16	12	506	10	2150
Bkgrd check	22	6	65	23	1271	122	87	10	16	12	506	10	
<b>Project Trips</b>													
Residential Project Trips	0	0	0	0	16	0	0	0	0	0	5	0	21
Retail Project Trips	0	0	0	0	3	0	0	0	0	0	5	0	8
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	19	0	0	0	0	0	10	0	29
Background + Project Conditions	22	6	65	23	1290	122	87	10	16	12	516	10	2179
Bkgrd+Proj check	22	6	65	23	1290	122	87	10	16	12	516	10	

Blossom Hill Station TOD

Intersection Number: **5**  
 Traffic Node Number: 3314  
 Intersection Name: Cahalan Avenue & Blossom Hill Road  
**Peak Hour:** AM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	37	17	37	21	1125	126	116	13	134	67	364	13	2070
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	37	17	37	21	1125	126	116	13	134	67	364	13	2070
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	37	17	37	21	1125	126	116	13	134	67	364	13	2070
Bkgrd check	37	17	37	21	1125	126	116	13	134	67	364	13	
<b>Project Trips</b>													
Residential Project Trips	0	0	0	0	16	0	0	0	0	0	6	0	22
Retail Project Trips	0	0	0	0	2	1	2	0	0	0	3	0	8
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	18	1	2	0	0	0	9	0	30
Background + Project Conditions	37	17	37	21	1143	127	118	13	134	67	373	13	2100
Bkgrd+Proj check	37	17	37	21	1143	127	118	13	134	67	373	13	

Intersection Number: **6**  
 Traffic Node Number: 3080  
 Intersection Name: Santa Teresa Boulevard & Blossom Hill Road  
**Peak Hour:** AM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	275	419	142	165	922	121	65	622	358	77	203	139	3508
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	275	419	142	165	922	121	65	622	358	77	203	139	3508
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	275	419	142	165	922	121	65	622	358	77	203	139	3508
Bkgrd check	275	419	142	165	922	121	65	622	358	77	203	139	
<b>Project Trips</b>													
Residential Project Trips	0	0	3	10	6	0	0	0	0	0	2	0	21
Retail Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	3	10	6	0	0	0	0	0	2	0	21
Background + Project Conditions	275	419	145	175	928	121	65	622	358	77	205	139	3529
Bkgrd+Proj check	275	419	145	175	928	121	65	622	358	77	205	139	

Blossom Hill Station TOD

Intersection Number: **1**  
 Traffic Node Number: 3004  
 Intersection Name: SR 85 NB Off-Ramp & Blossom Hill Road (E)  
**Peak Hour:** **PM** Date of Analysis: 09/15/20  
 Count Date: 12/06/18  
 Scenario: 328 Dwelling Units + 22,595 SF Retail

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	200	0	39	63	1501	0	188	64	178	343	1850	229	4655
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	200	0	39	63	1501	0	188	64	178	343	1850	229	4655
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	200	0	39	63	1501	0	188	64	178	343	1850	229	4655
Bkgrd check	200	0	39	63	1501	0	188	64	178	343	1850	229	
<b>Project Trips</b>													
Residential Project Trips	0	0	0	0	12	0	0	0	6	17	7	0	42
Retail Project Trips	0	0	0	0	6	0	0	0	0	0	7	0	13
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	18	0	0	0	6	17	14	0	55
Background + Project Conditions	200	0	39	63	1519	0	188	64	184	360	1864	229	4710
Bkgrd+Proj check	200	0	39	63	1519	0	188	64	184	360	1864	229	

Intersection Number: **2**  
 Traffic Node Number: 3005  
 Intersection Name: SR 85 SB Off-Ramp & Blossom Hill Road (W)  
**Peak Hour:** **PM** Date of Analysis: 09/15/20  
 Count Date: 12/13/18  
 Scenario: 328 Dwelling Units + 22,595 SF Retail

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	176	464	947	122	877	121	326	0	48	68	1353	0	4502
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	176	464	947	122	877	121	326	0	48	68	1353	0	4502
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	176	464	947	122	877	121	326	0	48	68	1353	0	4502
Bkgrd check	176	464	947	122	877	121	326	0	48	68	1353	0	
<b>Project Trips</b>													
Residential Project Trips	27	0	0	0	18	0	0	0	0	0	27	0	72
Retail Project Trips	0	0	0	0	6	0	0	0	4	4	7	0	21
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	27	0	0	0	24	0	0	0	4	4	34	0	93
Background + Project Conditions	203	464	947	122	901	121	326	0	52	72	1387	0	4595
Bkgrd+Proj check	203	464	947	122	901	121	326	0	52	72	1387	0	



Blossom Hill Station TOD

Intersection Number: **3**  
 Traffic Node Number: 3321  
 Intersection Name: Indian Avenue & Blossom Hill Road  
**Peak Hour:** PM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	33	0	88	36	1005	0	19	0	0	18	1129	11	2339
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	33	0	88	36	1005	0	19	0	0	18	1129	11	2339
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	33	0	88	36	1005	0	19	0	0	18	1129	11	2339
Bkgrd check	33	0	88	36	1005	0	19	0	0	18	1129	11	
<b>Project Trips</b>													
Residential Project Trips	9	0	28	45	0	0	0	0	0	0	0	15	97
Retail Project Trips	11	0	11	10	0	0	0	0	0	0	0	10	42
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	20	0	39	55	0	0	0	0	0	0	0	25	139
Background + Project Conditions	53	0	127	91	1005	0	19	0	0	18	1129	36	2478
Bkgrd+Proj check	53	0	127	91	1005	0	19	0	0	18	1129	36	

Intersection Number: **4**  
 Traffic Node Number: 3316  
 Intersection Name: Chesbro Avenue & Blossom Hill Road  
**Peak Hour:** PM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	17	8	57	29	845	123	150	4	12	21	1030	33	2329
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	17	8	57	29	845	123	150	4	12	21	1030	33	2329
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	17	8	57	29	845	123	150	4	12	21	1030	33	2329
Bkgrd check	17	8	57	29	845	123	150	4	12	21	1030	33	
<b>Project Trips</b>													
Residential Project Trips	0	0	0	0	9	0	0	0	0	0	15	0	24
Retail Project Trips	0	0	0	0	10	1	1	0	0	0	9	0	21
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	19	1	1	0	0	0	24	0	45
Background + Project Conditions	17	8	57	29	864	124	151	4	12	21	1054	33	2374
Bkgrd+Proj check	17	8	57	29	864	124	151	4	12	21	1054	33	

Blossom Hill Station TOD

Intersection Number: **5**  
 Traffic Node Number: 3314  
 Intersection Name: Cahalan Avenue & Blossom Hill Road  
**Peak Hour:** PM  
 Count Date: 08/28/19  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	35	12	16	33	621	155	112	20	132	135	872	47	2190
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	35	12	16	33	621	155	112	20	132	135	872	47	2190
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	35	12	16	33	621	155	112	20	132	135	872	47	2190
Bkgrd check	35	12	16	33	621	155	112	20	132	135	872	47	
<b>Project Trips</b>													
Residential Project Trips	0	0	0	0	9	0	0	0	0	0	15	0	24
Retail Project Trips	0	0	0	0	7	3	3	0	0	0	6	0	19
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	16	3	3	0	0	0	21	0	43
Background + Project Conditions	35	12	16	33	637	158	115	20	132	135	893	47	2233
Bkgrd+Proj check	35	12	16	33	637	158	115	20	132	135	893	47	

Intersection Number: **6**  
 Traffic Node Number: 3080  
 Intersection Name: Santa Teresa Boulevard & Blossom Hill Road  
**Peak Hour:** PM  
 Count Date: 12/04/18  
 Scenario: 328 Dwelling Units + 22,595 SF Retail  
 Date of Analysis: 09/15/20

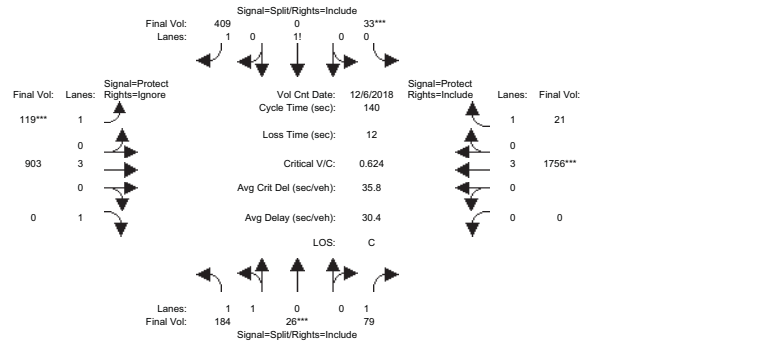
SJ Growth Factor (% Per Year): **0.01**  
 Number of Years: **0.00**

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Count	300	729	430	142	405	147	99	382	221	215	771	337	4178
1% Annual Growth (SJ Count Adjustment)	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	300	729	430	142	405	147	99	382	221	215	771	337	4178
<b>Approved Project Trips</b>													
San Jose ATI	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	300	729	430	142	405	147	99	382	221	215	771	337	4178
Bkgrd check	300	729	430	142	405	147	99	382	221	215	771	337	
<b>Project Trips</b>													
Residential Project Trips	0	0	9	6	4	0	0	0	0	0	6	0	25
Retail Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Trip Credits	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	9	6	4	0	0	0	0	0	6	0	25
Background + Project Conditions	300	729	439	148	409	147	99	382	221	215	777	337	4203
Bkgrd+Proj check	300	729	439	148	409	147	99	382	221	215	777	337	

**Appendix C**  
**Level of Service Calculations**

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail  
Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

Intersection #3004: 85/BLOSSOM HILL (E)



Approach: Movement:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Dec 2018 <<												
Base Vol:	184	26	79	33	0	409	119	903	444	0	1756	21
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:	184	26	79	33	0	409	119	903	444	0	1756	21
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	184	26	79	33	0	409	119	903	444	0	1756	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	184	26	79	33	0	409	119	903	0	0	1756	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	26	79	33	0	409	119	903	0	0	1756	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	184	26	79	33	0	409	119	903	0	0	1756	21

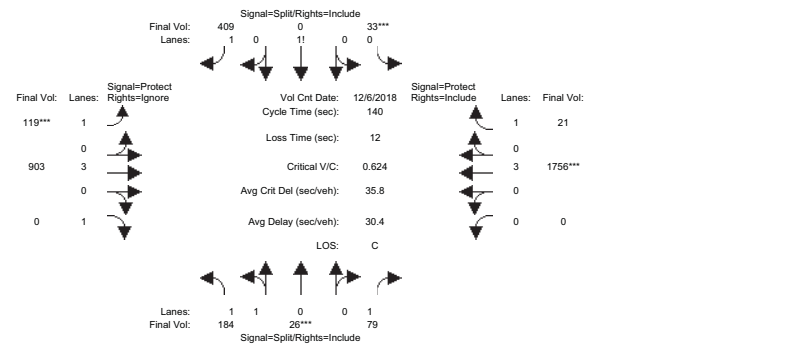
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.76	0.24	1.00	0.14	0.00	1.86	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	3110	440	1750	243	0	3257	1750	5700	1750	0	5700	1750

Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.05	0.14	0.00	0.13	0.07	0.16	0.00	0.00	0.31	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	13.3	13.3	13.3	30.4	0.0	30.4	15.2	84.3	0.0	0.0	69.1	69.1
Volume/Cap:	0.62	0.62	0.48	0.62	0.00	0.58	0.62	0.26	0.00	0.00	0.62	0.02
Delay/Veh:	64.6	64.6	62.2	51.4	0.0	50.1	66.0	13.2	0.0	0.0	26.4	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.6	64.6	62.2	51.4	0.0	50.1	66.0	13.2	0.0	0.0	26.4	18.2
LOS by Move:	E	E	E	D	A	D	E	B	A	A	C	B
DesignQueue:	8	8	6	16	0	15	9	10	0	0	25	1

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail  
Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Background (AM)

Intersection #3004: 85/BLOSSOM HILL (E)



Approach: Movement:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Dec 2018 <<												
Base Vol:	184	26	79	33	0	409	119	903	444	0	1756	21
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:	184	26	79	33	0	409	119	903	444	0	1756	21
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	184	26	79	33	0	409	119	903	444	0	1756	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	184	26	79	33	0	409	119	903	0	0	1756	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	26	79	33	0	409	119	903	0	0	1756	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	184	26	79	33	0	409	119	903	0	0	1756	21

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.76	0.24	1.00	0.14	0.00	1.86	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	3110	440	1750	243	0	3257	1750	5700	1750	0	5700	1750

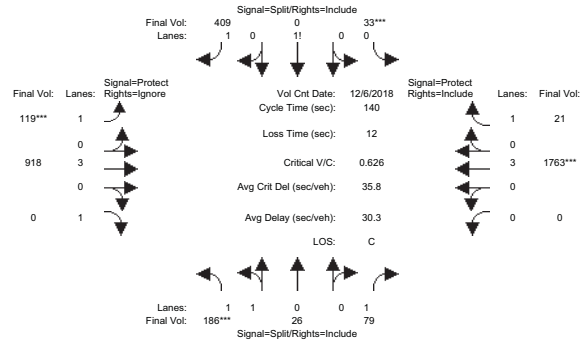
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.05	0.14	0.00	0.13	0.07	0.16	0.00	0.00	0.31	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	13.3	13.3	13.3	30.4	0.0	30.4	15.2	84.3	0.0	0.0	69.1	69.1
Volume/Cap:	0.62	0.62	0.48	0.62	0.00	0.58	0.62	0.26	0.00	0.00	0.62	0.02
Delay/Veh:	64.6	64.6	62.2	51.4	0.0	50.1	66.0	13.2	0.0	0.0	26.4	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.6	64.6	62.2	51.4	0.0	50.1	66.0	13.2	0.0	0.0	26.4	18.2
LOS by Move:	E	E	E	D	A	D	E	B	A	A	C	B
DesignQueue:	8	8	6	16	0	15	9	10	0	0	25	1

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3004: 85/BLOSSOM HILL (E)



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	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	6 Dec 2018	<<							
Base Vol:	184	26	79	33	0	409	119	903	444	0	1756	21
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:	184	26	79	33	0	409	119	903	444	0	1756	21
Added Vol:	2	0	0	0	0	0	0	15	29	0	7	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	186	26	79	33	0	409	119	918	473	0	1763	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	186	26	79	33	0	409	119	918	0	0	1763	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	26	79	33	0	409	119	918	0	0	1763	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	186	26	79	33	0	409	119	918	0	0	1763	21

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.76	0.24	1.00	0.14	0.00	1.86	1.00	3.00	1.00	0.00	3.00	1.00	
Final Sat.:	3115	435	1750	243	0	3257	1750	5700	1750	0	5700	1750	

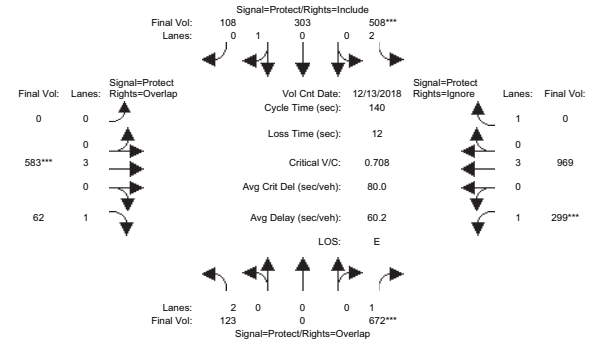
Capacity Analysis Module:	Vol/Sat:	0.06	0.06	0.05	0.14	0.00	0.13	0.07	0.16	0.00	0.00	0.31	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	13.3	13.3	13.3	30.3	0.0	30.3	15.2	84.3	0.0	0.0	69.1	69.1	
Volume/Cap:	0.63	0.63	0.47	0.63	0.00	0.58	0.63	0.27	0.00	0.00	0.63	0.02	
Delay/Veh:	64.6	64.6	62.1	51.5	0.0	50.2	66.1	13.2	0.0	0.0	26.4	18.2	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	64.6	64.6	62.1	51.5	0.0	50.2	66.1	13.2	0.0	0.0	26.4	18.2	
LOS by Move:	E	E	E	D	A	D	E	B	A	A	C	B	
DesignQueue:	8	8	6	16	0	15	9	10	0	0	25	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3005: 85/BLOSSOM HILL (W)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	7	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	13 Dec 2018	<<							
Base Vol:	123	0	672	508	303	108	0	583	62	299	969	133
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:	123	0	672	508	303	108	0	583	62	299	969	133
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	0	672	508	303	108	0	583	62	299	969	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	123	0	672	508	303	108	0	583	62	299	969	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	0	672	508	303	108	0	583	62	299	969	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	123	0	672	508	303	108	0	583	62	299	969	0

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	2.00	0.00	1.00	2.00	0.74	0.26	0.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3150	0	1750	3150	1327	473	0	5700	1750	1750	5700	1750	

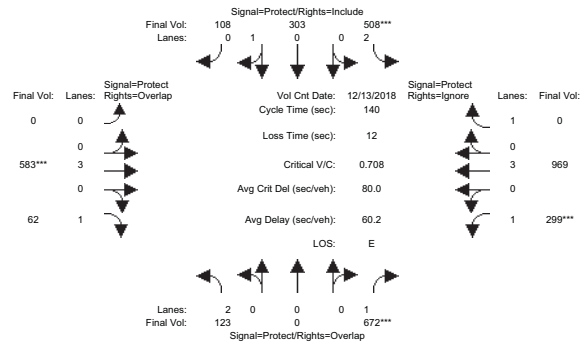
Capacity Analysis Module:	Vol/Sat:	0.04	0.00	0.38	0.16	0.23	0.23	0.00	0.10	0.04	0.17	0.17	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	13.3	0.0	47.1	31.9	60.7	60.7	0.0	20.2	33.5	33.8	54.0	0.0	
Volume/Cap:	0.41	0.00	1.14	0.71	0.53	0.53	0.00	0.71	0.15	0.71	0.44	0.00	
Delay/Veh:	60.6	0.0	129.4	53.1	29.8	29.8	0.0	59.9	42.2	54.1	32.0	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:	60.6	0.0	129.4	53.1	29.8	29.8	0.0	59.9	42.2	54.1	32.0	0.0	
LOS by Move:	E	A	F	D	C	C	A	E	D	D	C	A	
DesignQueue:	5	0	42	19	20	20	0	13	4	20	16	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3005: 85/BLOSSOM HILL (W)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	7	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	13 Dec 2018	<<
Base Vol:	123	0	672	508 303	108
Growth Adj:	1.00	1.00	1.00	1.00 1.00	1.00
Initial Bse:	123	0	672	508 303	108
Added Vol:	0	0	0	0 0	0
ATI:	0	0	0	0 0	0
Initial Fut:	123	0	672	508 303	108
User Adj:	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
PHF Volume:	123	0	672	508 303	108
Reduct Vol:	0	0	0	0 0	0
Reduced Vol:	123	0	672	508 303	108
PCE Adj:	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
Final Volume:	123	0	672	508 303	108

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	1.00	2.00	0.74	0.26	0.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	0	1750	3150	1327	473	0	5700	1750	1750	5700	1750

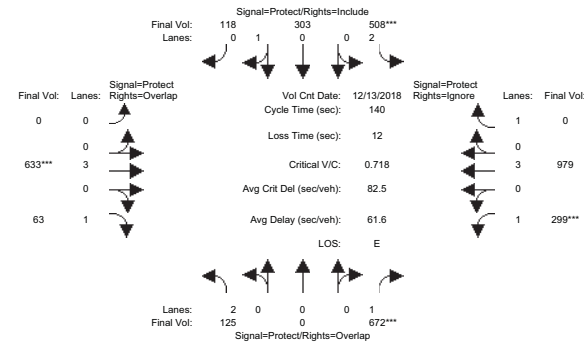
Capacity Analysis Module:	Vol/Sat:	0.04	0.00	0.38	0.16	0.23	0.23	0.00	0.10	0.04	0.17	0.17	0.00
Crit Moves:		****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	13.3	0.0	47.1	31.9	60.7	60.7	0.0	20.2	33.5	33.8	54.0	0.0	
Volume/Cap:	0.41	0.00	1.14	0.71	0.53	0.53	0.00	0.71	0.15	0.71	0.44	0.00	
Delay/Veh:	60.6	0.0	129.4	53.1	29.8	29.8	0.0	59.9	42.2	54.1	32.0	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:	60.6	0.0	129.4	53.1	29.8	29.8	0.0	59.9	42.2	54.1	32.0	0.0	
LOS by Move:	E	A	F	D	C	C	A	E	D	D	C	A	
DesignQueue:	5	0	42	19	20	20	0	13	4	20	16	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3005: 85/BLOSSOM HILL (W)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	7	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	13 Dec 2018	<<
Base Vol:	123	0	672	508 303	108
Growth Adj:	1.00	1.00	1.00	1.00 1.00	1.00
Initial Bse:	123	0	672	508 303	108
Added Vol:	2	0	0	0 0	10
ATI:	0	0	0	0 0	0
Initial Fut:	125	0	672	508 303	118
User Adj:	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
PHF Volume:	125	0	672	508 303	118
Reduct Vol:	0	0	0	0 0	0
Reduced Vol:	125	0	672	508 303	118
PCE Adj:	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
Final Volume:	125	0	672	508 303	118

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	1.00	2.00	0.72	0.28	0.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	0	1750	3150	1295	505	0	5700	1750	1750	5700	1750

Capacity Analysis Module:	Vol/Sat:	0.04	0.00	0.38	0.16	0.23	0.23	0.00	0.11	0.04	0.17	0.17	0.00
Crit Moves:		****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	12.9	0.0	46.2	31.5	60.2	60.2	0.0	21.7	34.5	33.3	55.0	0.0	
Volume/Cap:	0.43	0.00	1.16	0.72	0.54	0.54	0.00	0.72	0.15	0.72	0.44	0.00	
Delay/Veh:	61.2	0.0	138.6	53.7	30.5	30.5	0.0	59.1	41.4	55.0	31.3	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:	61.2	0.0	138.6	53.7	30.5	30.5	0.0	59.1	41.4	55.0	31.3	0.0	
LOS by Move:	E	A	F	D	C	C	A	E	D	D	C	A	
DesignQueue:	5	0	42	19	21	21	0	14	4	20	16	0	

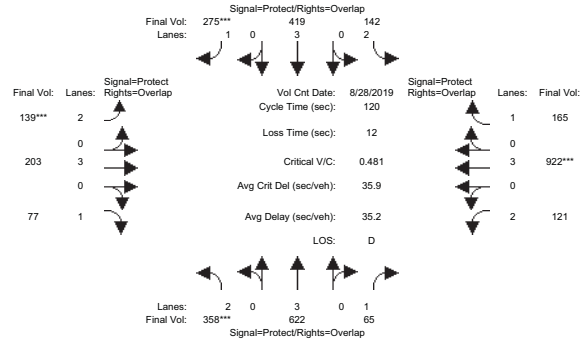
Note: Queue reported is the number of cars per lane.



Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3080: BLOSSOM HILL/SANTA TERESA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<												
Base Vol:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ATI:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Volume:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	

Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150

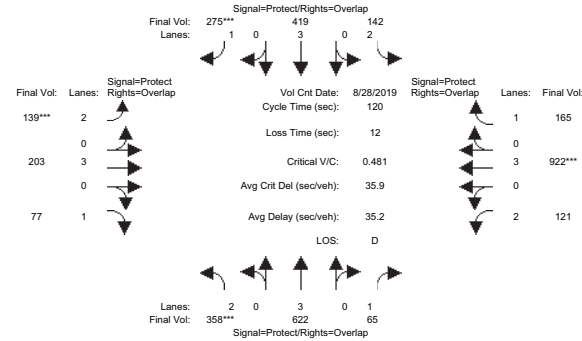
Capacity Analysis Module:																
Vol/Sat:	0.11	0.11	0.04	0.05	0.07	0.16	0.04	0.04	0.04	0.04	0.16	0.09	0.04	0.16	0.09	0.04
Crit Moves:	****			****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	28.4	34.6	55.7	18.5	24.7	35.7	11.0	30.2	58.6	21.2	40.4	58.9	11.0	30.2	58.6	21.2
Volume/Cap:	0.48	0.38	0.08	0.29	0.36	0.53	0.48	0.14	0.09	0.22	0.48	0.19	0.48	0.14	0.09	0.22
Delay/Veh:	40.0	34.3	17.9	45.3	41.1	36.2	53.0	34.9	16.5	42.5	31.7	17.3	53.0	34.9	16.5	42.5
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	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.0	34.3	17.9	45.3	41.1	36.2	53.0	34.9	16.5	42.5	31.7	17.3	53.0	34.9	16.5	42.5
LOS by Move:	D	C	B	D	D	D	D	C	B	D	C	B	D	C	B	D
DesignQueue:	11	10	3	5	8	15	5	3	3	4	14	6	5	3	3	4

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3080: BLOSSOM HILL/SANTA TERESA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<												
Base Vol:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ATI:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Volume:	358	622	65	142	419	275	139	203	77	121	922	165	77	121	922	165	

Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150

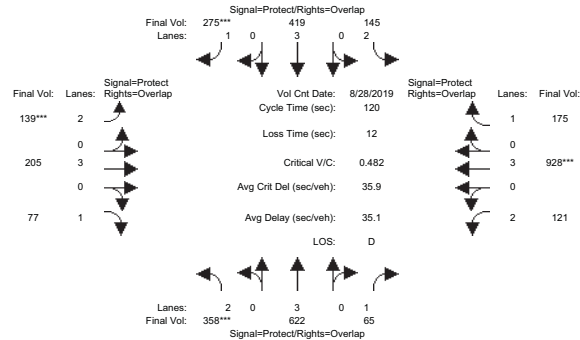
Capacity Analysis Module:																
Vol/Sat:	0.11	0.11	0.04	0.05	0.07	0.16	0.04	0.04	0.04	0.04	0.16	0.09	0.04	0.16	0.09	0.04
Crit Moves:	****			****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	28.4	34.6	55.7	18.5	24.7	35.7	11.0	30.2	58.6	21.2	40.4	58.9	11.0	30.2	58.6	21.2
Volume/Cap:	0.48	0.38	0.08	0.29	0.36	0.53	0.48	0.14	0.09	0.22	0.48	0.19	0.48	0.14	0.09	0.22
Delay/Veh:	40.0	34.3	17.9	45.3	41.1	36.2	53.0	34.9	16.5	42.5	31.7	17.3	53.0	34.9	16.5	42.5
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	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.0	34.3	17.9	45.3	41.1	36.2	53.0	34.9	16.5	42.5	31.7	17.3	53.0	34.9	16.5	42.5
LOS by Move:	D	C	B	D	D	D	D	C	B	D	C	B	D	C	B	D
DesignQueue:	11	10	3	5	8	15	5	3	3	4	14	6	5	3	3	4

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3080: BLOSSOM HILL/SANTA TERESA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	358	622	65	142	419	275	139	203	77	121	922	165
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:	358	622	65	142	419	275	139	203	77	121	922	165
Added Vol:	0	0	0	3	0	0	0	2	0	0	6	10
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	358	622	65	145	419	275	139	205	77	121	928	175
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:	358	622	65	145	419	275	139	205	77	121	928	175
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	358	622	65	145	419	275	139	205	77	121	928	175
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:	358	622	65	145	419	275	139	205	77	121	928	175

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750

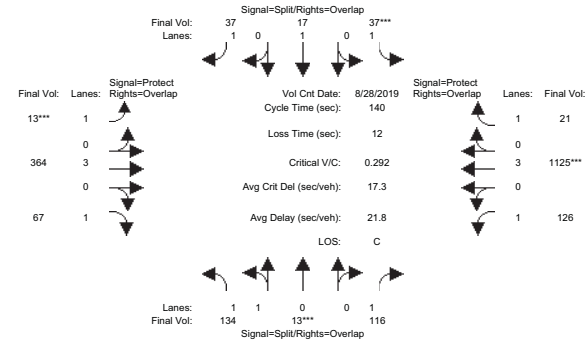
Capacity Analysis Module:	Vol/Sat:	0.11	0.11	0.04	0.05	0.07	0.16	0.04	0.04	0.04	0.04	0.16	0.10
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	28.3	34.5	55.7	18.4	24.6	35.6	11.0	30.3	58.6	21.2	40.6	59.0	
Volume/Cap:	0.48	0.38	0.08	0.30	0.36	0.53	0.48	0.14	0.09	0.22	0.48	0.20	
Delay/Veh:	40.0	34.4	17.9	45.4	41.1	36.3	53.1	34.8	16.5	42.5	31.6	17.4	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	40.0	34.4	17.9	45.4	41.1	36.3	53.1	34.8	16.5	42.5	31.6	17.4	
LOS by Move:	D	C	B	D	D	D	D	C	B	D	C	B	
DesignQueue:	11	10	3	5	8	15	5	3	3	4	14	7	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3314: BLOSSOM HILL/CAHALAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.83	0.17	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3236	314	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750

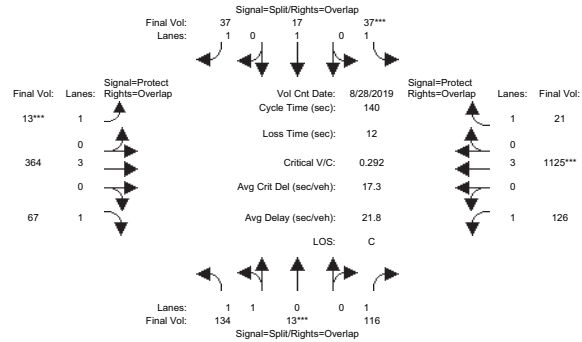
Capacity Analysis Module:	Vol/Sat:	0.04	0.04	0.07	0.02	0.01	0.02	0.01	0.06	0.04	0.07	0.20	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	19.2	19.2	68.8	10.0	10.0	17.0	7.0	49.2	68.4	49.6	91.8	101.8	
Volume/Cap:	0.30	0.30	0.13	0.30	0.13	0.17	0.15	0.18	0.08	0.20	0.30	0.02	
Delay/Veh:	54.7	54.7	19.5	63.0	61.3	55.6	64.4	31.5	19.1	31.6	10.4	5.3	
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:	54.7	54.7	19.5	63.0	61.3	55.6	64.4	31.5	19.1	31.6	10.4	5.3	
LOS by Move:	D	D	B	E	E	E	E	C	B	C	B	A	
DesignQueue:	5	5	5	3	1	3	1	6	3	7	11	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3314: BLOSSOM HILL/CAHALAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.83	0.17	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3236	314	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750	

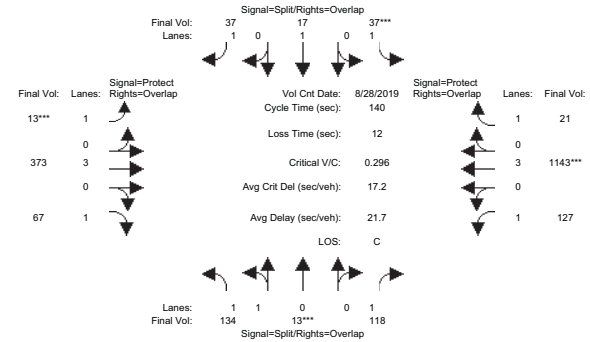
Capacity Analysis Module:	Vol/Sat:	0.04	0.04	0.07	0.02	0.01	0.02	0.01	0.06	0.04	0.07	0.20	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	19.2	19.2	68.8	10.0	10.0	17.0	7.0	49.2	68.4	49.6	91.8	101.8	
Volume/Cap:	0.30	0.30	0.13	0.30	0.13	0.17	0.15	0.18	0.08	0.20	0.30	0.02	
Delay/Veh:	54.7	54.7	19.5	63.0	61.3	55.6	64.4	31.5	19.1	31.6	10.4	5.3	
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:	54.7	54.7	19.5	63.0	61.3	55.6	64.4	31.5	19.1	31.6	10.4	5.3	
LOS by Move:	D	D	B	E	E	E	E	C	B	C	B	A	
DesignQueue:	5	5	5	3	1	3	1	6	3	7	11	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3314: BLOSSOM HILL/CAHALAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	134	13	116	37	17	37	13	364	67	126	1125	21
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:	134	13	116	37	17	37	13	364	67	126	1125	21
Added Vol:	0	0	2	0	0	0	0	9	0	1	18	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	134	13	118	37	17	37	13	373	67	127	1143	21
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:	134	13	118	37	17	37	13	373	67	127	1143	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	13	118	37	17	37	13	373	67	127	1143	21
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:	134	13	118	37	17	37	13	373	67	127	1143	21

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.83	0.17	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3236	314	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750	

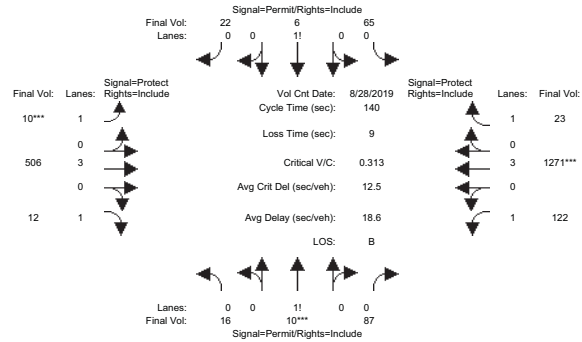
Capacity Analysis Module:	Vol/Sat:	0.04	0.04	0.07	0.02	0.01	0.02	0.01	0.07	0.04	0.07	0.20	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	19.0	19.0	68.9	10.0	10.0	17.0	7.0	49.1	68.1	49.9	92.0	102.0	
Volume/Cap:	0.31	0.31	0.14	0.30	0.13	0.17	0.15	0.19	0.08	0.20	0.31	0.02	
Delay/Veh:	54.9	54.9	19.4	63.0	61.3	55.6	64.4	31.6	19.2	31.4	10.3	5.2	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	54.9	54.9	19.4	63.0	61.3	55.6	64.4	31.6	19.2	31.4	10.3	5.2	
LOS by Move:	D	D	B	E	E	E	E	C	B	C	B	A	
DesignQueue:	5	5	5	3	1	3	1	6	3	7	11	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3316: BLOSSOM HILL/CHESBRO



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	0.14	0.09	0.77	0.70	0.06	0.24	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	248	155	1347	1223	113	414	1750	5700	1750	1750	5700	1750	

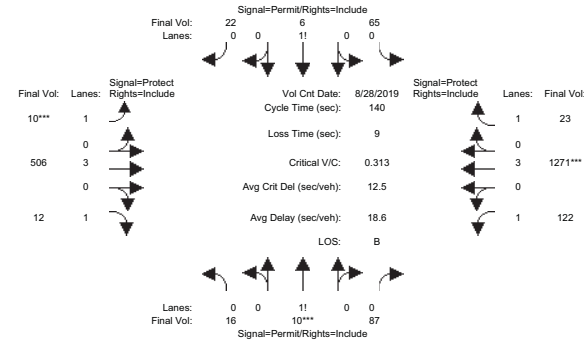
Capacity Analysis Module:	Vol/Sat:	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.09	0.01	0.07	0.22	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	27.8	27.8	27.8	27.8	27.8	27.8	7.0	57.8	57.8	45.4	96.2	96.2	
Volume/Cap:	0.32	0.32	0.32	0.27	0.27	0.27	0.11	0.22	0.02	0.22	0.32	0.02	
Delay/Veh:	48.6	48.6	48.6	47.9	47.9	47.9	64.1	26.5	24.3	34.6	8.9	7.0	
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:	48.6	48.6	48.6	47.9	47.9	47.9	64.1	26.5	24.3	34.6	8.9	7.0	
LOS by Move:	D	D	D	D	D	D	E	C	C	C	A	A	
DesignQueue:	8	8	8	6	6	6	1	8	1	7	11	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3316: BLOSSOM HILL/CHESBRO



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	0.14	0.09	0.77	0.70	0.06	0.24	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	248	155	1347	1223	113	414	1750	5700	1750	1750	5700	1750	

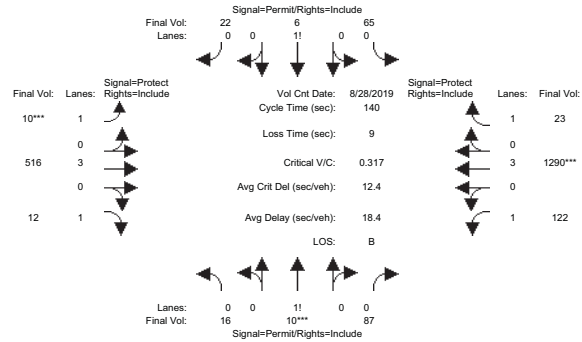
Capacity Analysis Module:	Vol/Sat:	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.09	0.01	0.07	0.22	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	27.8	27.8	27.8	27.8	27.8	27.8	7.0	57.8	57.8	45.4	96.2	96.2	
Volume/Cap:	0.32	0.32	0.32	0.27	0.27	0.27	0.11	0.22	0.02	0.22	0.32	0.02	
Delay/Veh:	48.6	48.6	48.6	47.9	47.9	47.9	64.1	26.5	24.3	34.6	8.9	7.0	
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:	48.6	48.6	48.6	47.9	47.9	47.9	64.1	26.5	24.3	34.6	8.9	7.0	
LOS by Move:	D	D	D	D	D	D	E	C	C	C	A	A	
DesignQueue:	8	8	8	6	6	6	1	8	1	7	11	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3316: BLOSSOM HILL/CHESBRO



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	16	10	87	65	6	22	10	506	12	122	1271	23
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:	16	10	87	65	6	22	10	506	12	122	1271	23
Added Vol:	0	0	0	0	0	0	0	10	0	0	19	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	10	87	65	6	22	10	516	12	122	1290	23
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:	16	10	87	65	6	22	10	516	12	122	1290	23
Reduce Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	10	87	65	6	22	10	516	12	122	1290	23
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:	16	10	87	65	6	22	10	516	12	122	1290	23

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.14	0.09	0.77	0.70	0.06	0.24	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	248	155	1347	1223	113	414	1750	5700	1750	1750	5700	1750

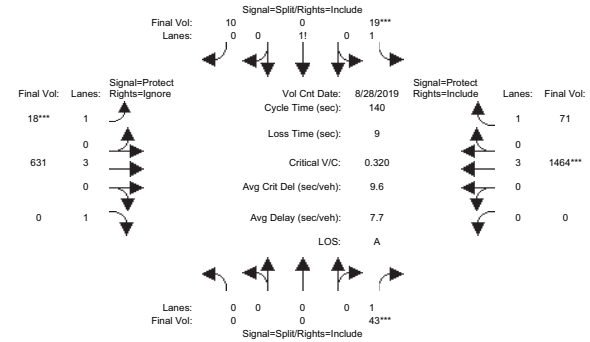
Capacity Analysis Module:	Vol/Sat:	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.09	0.01	0.07	0.23	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	27.5	27.5	27.5	27.5	27.5	27.5	7.0	58.5	58.5	45.0	96.5	96.5	
Volume/Cap:	0.33	0.33	0.33	0.27	0.27	0.27	0.11	0.22	0.02	0.22	0.33	0.02	
Delay/Veh:	48.9	48.9	48.9	48.1	48.1	48.1	64.1	26.2	23.9	34.8	8.8	6.9	
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:	48.9	48.9	48.9	48.1	48.1	48.1	64.1	26.2	23.9	34.8	8.8	6.9	
LOS by Move:	D	D	D	D	D	D	E	C	C	C	A	A	
DesignQueue:	8	8	8	6	6	6	1	8	1	7	11	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3321: BLOSSOM HILL/INDIAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	0	0	43	19	0	10	18	631	8	0	1464	71
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	43	19	0	10	18	631	8	0	1464	71
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	43	19	0	10	18	631	8	0	1464	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	43	19	0	10	18	631	0	0	1464	71
Reduce Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	43	19	0	10	18	631	0	0	1464	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	0	0	43	19	0	10	18	631	0	0	1464	71

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	1.00	1.49	0.00	0.51	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	1750	2603	0	897	1750	5700	1750	0	5700	1750

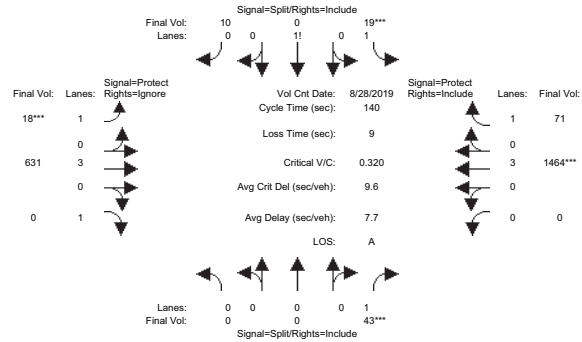
Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.02	0.01	0.00	0.01	0.01	0.11	0.00	0.00	0.26	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	10.0	10.0	0.0	10.0	7.0	111	0.0	0.0	104	104.0	
Volume/Cap:	0.00	0.00	0.34	0.10	0.00	0.16	0.21	0.14	0.00	0.00	0.35	0.05	
Delay/Veh:	0.0	0.0	63.5	61.0	0.0	61.4	65.0	3.4	0.0	0.0	6.3	4.8	
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:	0.0	0.0	63.5	61.0	0.0	61.4	65.0	3.4	0.0	0.0	6.3	4.8	
LOS by Move:	A	A	E	E	A	E	E	A	A	A	A	A	
DesignQueue:	0	0	3	1	0	2	1	3	0	0	10	2	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3321: BLOSSOM HILL/INDIAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	0	0	43	19	0	10	18	631	8	0	1464	71
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	43	19	0	10	18	631	8	0	1464	71
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	43	19	0	10	18	631	8	0	1464	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	43	19	0	10	18	631	0	0	1464	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	43	19	0	10	18	631	0	0	1464	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	0	0	43	19	0	10	18	631	0	0	1464	71

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	1.00	1.49	0.00	0.51	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	1750	2603	0	897	1750	5700	1750	0	5700	1750

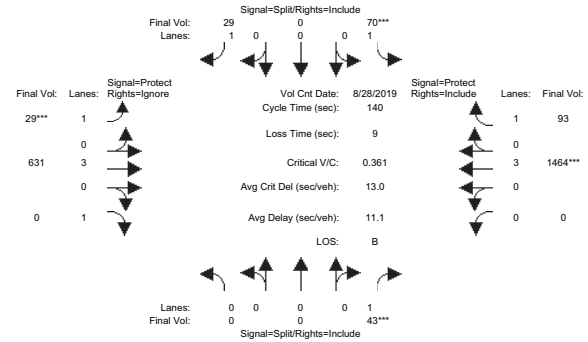
Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.02	0.01	0.00	0.01	0.01	0.11	0.00	0.00	0.26	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	10.0	10.0	0.0	10.0	7.0	11.1	0.0	0.0	10.4	10.0	0.0
Volume/Cap:	0.00	0.00	0.34	0.10	0.00	0.16	0.21	0.14	0.00	0.00	0.35	0.05	0.05
Delay/Veh:	0.0	0.0	63.5	61.0	0.0	61.4	65.0	3.4	0.0	0.0	6.3	4.8	4.8
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	1.00
AdjDel/Veh:	0.0	0.0	63.5	61.0	0.0	61.4	65.0	3.4	0.0	0.0	6.3	4.8	4.8
LOS by Move:	A	A	E	E	A	E	E	A	A	A	A	A	A
DesignQueue:	0	0	3	1	0	2	1	3	0	0	10	2	2

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3321: BLOSSOM HILL/INDIAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	0	0	43	19	0	10	18	631	8	0	1464	71
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	43	19	0	10	18	631	8	0	1464	71
Added Vol:	0	0	0	51	0	19	11	0	0	0	0	22
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	43	70	0	29	29	631	8	0	1464	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	43	70	0	29	29	631	0	0	1464	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	43	70	0	29	29	631	0	0	1464	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	0	0	43	70	0	29	29	631	0	0	1464	93

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	3.00	1.00	0.00	3.00	1.00	
Final Sat.:	0	0	1750	1750	0	1750	1750	5700	1750	0	5700	1750	

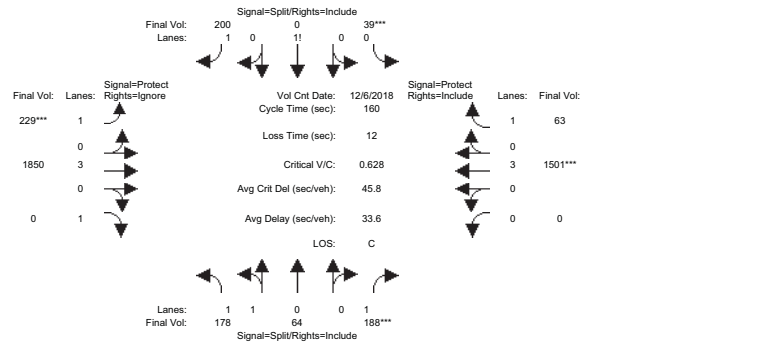
Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.02	0.04	0.00	0.02	0.02	0.11	0.00	0.00	0.26	0.05
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	10.0	15.4	0.0	15.4	7.0	10.6	0.0	0.0	98.6	98.6	0.0
Volume/Cap:	0.00	0.00	0.34	0.36	0.00	0.15	0.33	0.15	0.00	0.00	0.36	0.08	0.08
Delay/Veh:	0.0	0.0	63.5	59.0	0.0	56.8	66.5	4.8	0.0	0.0	8.3	6.5	6.5
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	1.00
AdjDel/Veh:	0.0	0.0	63.5	59.0	0.0	56.8	66.5	4.8	0.0	0.0	8.3	6.5	6.5
LOS by Move:	A	A	E	E	A	E	E	A	A	A	A	A	A
DesignQueue:	0	0	3	5	0	2	2	4	0	0	12	2	2

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



Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail  
Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

Intersection #3004: 85/BLOSSOM HILL (E)



Approach: Movement:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Dec 2018 << 4:45 - 5:45 PM												
Base Vol:	178	64	188	39	0	200	229	1850	343	0	1501	63
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:	178	64	188	39	0	200	229	1850	343	0	1501	63
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	178	64	188	39	0	200	229	1850	343	0	1501	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	178	64	188	39	0	200	229	1850	0	0	1501	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	64	188	39	0	200	229	1850	0	0	1501	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	178	64	188	39	0	200	229	1850	0	0	1501	63

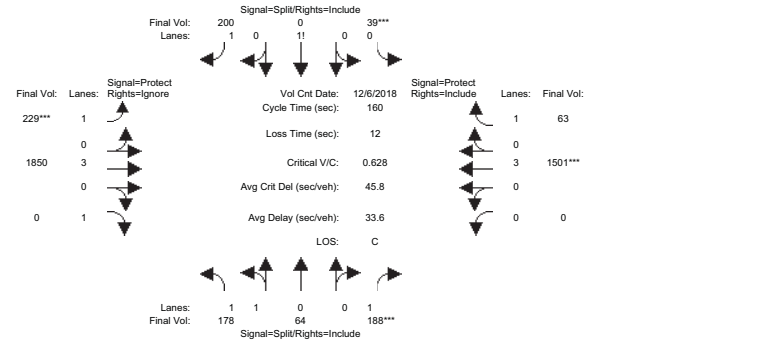
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.48	0.52	1.00	0.28	0.00	1.72	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	2611	939	1750	491	0	3009	1750	5700	1750	0	5700	1750

Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.11	0.08	0.00	0.07	0.13	0.32	0.00	0.00	0.26	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	27.4	27.4	27.4	20.2	0.0	20.2	33.3	100	0.0	0.0	67.1	67.1
Volume/Cap:	0.40	0.40	0.63	0.63	0.00	0.53	0.63	0.52	0.00	0.00	0.63	0.09
Delay/Veh:	59.4	59.4	65.8	69.6	0.0	66.5	61.2	16.6	0.0	0.0	37.2	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.4	59.4	65.8	69.6	0.0	66.5	61.2	16.6	0.0	0.0	37.2	28.0
LOS by Move:	E	E	E	E	A	E	E	B	A	A	D	C
DesignQueue:	10	10	15	12	0	10	18	22	0	0	28	4

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail  
Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Background (PM)

Intersection #3004: 85/BLOSSOM HILL (E)



Approach: Movement:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Dec 2018 << 4:45 - 5:45 PM												
Base Vol:	178	64	188	39	0	200	229	1850	343	0	1501	63
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:	178	64	188	39	0	200	229	1850	343	0	1501	63
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	178	64	188	39	0	200	229	1850	343	0	1501	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	178	64	188	39	0	200	229	1850	0	0	1501	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	64	188	39	0	200	229	1850	0	0	1501	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	178	64	188	39	0	200	229	1850	0	0	1501	63

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.48	0.52	1.00	0.28	0.00	1.72	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	2611	939	1750	491	0	3009	1750	5700	1750	0	5700	1750

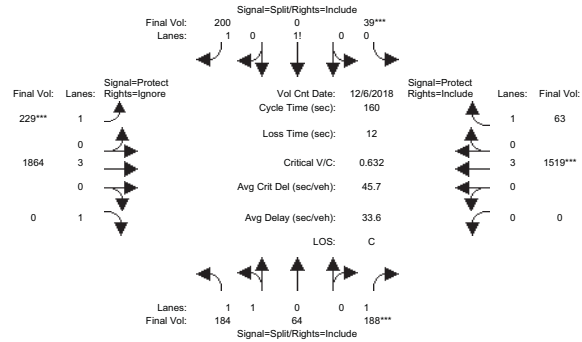
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.11	0.08	0.00	0.07	0.13	0.32	0.00	0.00	0.26	0.04
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	27.4	27.4	27.4	20.2	0.0	20.2	33.3	100	0.0	0.0	67.1	67.1
Volume/Cap:	0.40	0.40	0.63	0.63	0.00	0.53	0.63	0.52	0.00	0.00	0.63	0.09
Delay/Veh:	59.4	59.4	65.8	69.6	0.0	66.5	61.2	16.6	0.0	0.0	37.2	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.4	59.4	65.8	69.6	0.0	66.5	61.2	16.6	0.0	0.0	37.2	28.0
LOS by Move:	E	E	E	E	A	E	E	B	A	A	D	C
DesignQueue:	10	10	15	12	0	10	18	22	0	0	28	4

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3004: 85/BLOSSOM HILL (E)



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	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	6 Dec 2018	<<	4:45 - 5:45 PM
Base Vol:	178	64	188	39	0	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	178	64	188	39	0	200
Added Vol:	6	0	0	0	0	0
ATI:	0	0	0	0	0	0
Initial Fut:	184	64	188	39	0	200
User Adj:	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
PHF Volume:	184	64	188	39	0	200
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	184	64	188	39	0	200
PCE Adj:	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
Final Volume:	184	64	188	39	0	200

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.49	0.51	1.00	0.28	0.00	1.72	1.00	3.00	1.00	0.00	3.00	1.00	
Final Sat.:	2634	916	1750	491	0	3009	1750	5700	1750	0	5700	1750	

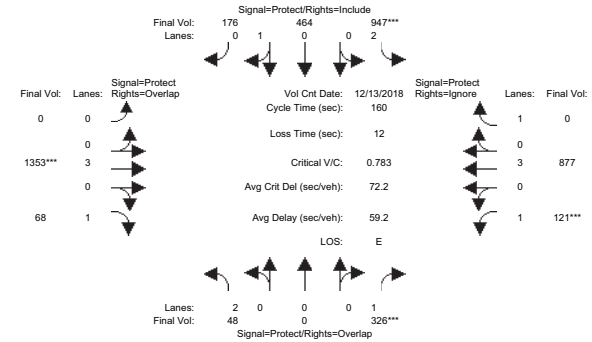
Capacity Analysis Module:	Vol/Sat:	0.07	0.07	0.11	0.08	0.00	0.07	0.13	0.33	0.00	0.00	0.27	0.04
Crit Moves:		****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	27.2	27.2	27.2	20.1	0.0	20.1	33.2	101	0.0	0.0	67.5	67.5	
Volume/Cap:	0.41	0.41	0.63	0.63	0.00	0.53	0.63	0.52	0.00	0.00	0.63	0.09	
Delay/Veh:	59.7	59.7	66.1	69.9	0.0	66.7	61.4	16.5	0.0	0.0	37.0	27.8	
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:	59.7	59.7	66.1	69.9	0.0	66.7	61.4	16.5	0.0	0.0	37.0	27.8	
LOS by Move:	E	E	E	E	A	E	E	B	A	A	D	C	
DesignQueue:	10	10	15	12	0	10	18	22	0	0	28	4	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3005: 85/BLOSSOM HILL (W)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	7	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	13 Dec 2018	<<	5:00 - 6:00 PM
Base Vol:	48	0	326	947	464	176
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	326	947	464	176
Added Vol:	0	0	0	0	0	0
ATI:	0	0	0	0	0	0
Initial Fut:	48	0	326	947	464	176
User Adj:	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
PHF Volume:	48	0	326	947	464	176
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	48	0	326	947	464	176
PCE Adj:	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
Final Volume:	48	0	326	947	464	176

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	2.00	0.00	1.00	2.00	0.72	0.28	0.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3150	0	1750	3150	1305	495	0	5700	1750	1750	5700	1750	

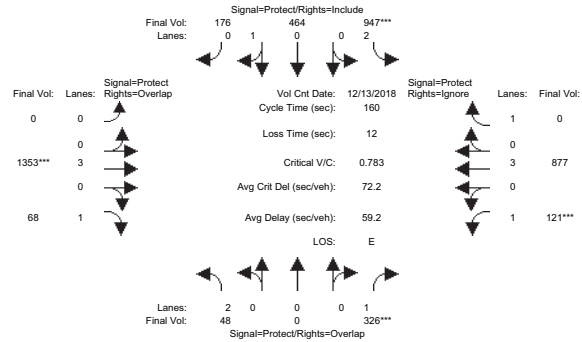
Capacity Analysis Module:	Vol/Sat:	0.02	0.00	0.19	0.30	0.36	0.36	0.00	0.24	0.04	0.07	0.15	0.00
Crit Moves:		****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	9.4	0.0	23.5	61.4	76.0	76.0	0.0	48.5	57.9	14.1	62.6	0.0	
Volume/Cap:	0.26	0.00	1.27	0.78	0.75	0.75	0.00	0.78	0.11	0.78	0.39	0.00	
Delay/Veh:	72.8	0.0	216.5	46.8	37.9	37.9	0.0	53.3	34.0	93.9	35.1	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:	72.8	0.0	216.5	46.8	37.9	37.9	0.0	53.3	34.0	93.9	35.1	0.0	
LOS by Move:	E	A	F	D	D	D	A	D	C	F	D	A	
DesignQueue:	2	0	28	34	35	35	0	30	4	11	16	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3005: 85/BLOSSOM HILL (W)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	7	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	13 Dec 2018	<<	5:00 - 6:00 PM
Base Vol:	48	0	326	947	464	176
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	326	947	464	176
Added Vol:	0	0	0	0	0	0
ATI:	0	0	0	0	0	0
Initial Fut:	48	0	326	947	464	176
User Adj:	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
PHF Volume:	48	0	326	947	464	176
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	48	0	326	947	464	176
PCE Adj:	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
Final Volume:	48	0	326	947	464	176

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	2.00	0.00	1.00	2.00	0.72	0.28	0.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3150	0	1750	3150	1305	495	0	5700	1750	1750	5700	1750	

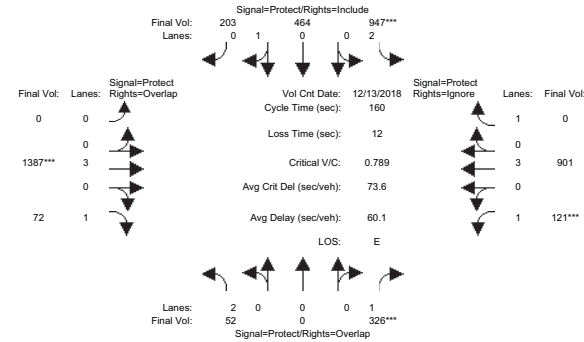
Capacity Analysis Module:	Vol/Sat:	0.02	0.00	0.19	0.30	0.36	0.36	0.00	0.24	0.04	0.07	0.15	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	9.4	0.0	23.5	61.4	76.0	76.0	0.0	48.5	57.9	14.1	62.6	0.0	
Volume/Cap:	0.26	0.00	1.27	0.78	0.75	0.75	0.00	0.78	0.11	0.78	0.39	0.00	
Delay/Veh:	72.8	0.0	216.5	46.8	37.9	37.9	0.0	53.3	34.0	93.9	35.1	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:	72.8	0.0	216.5	46.8	37.9	37.9	0.0	53.3	34.0	93.9	35.1	0.0	
LOS by Move:	E	A	F	D	D	D	A	D	C	F	D	A	
DesignQueue:	2	0	28	34	35	35	0	30	4	11	16	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3005: 85/BLOSSOM HILL (W)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	0	10	7	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	13 Dec 2018	<<	5:00 - 6:00 PM
Base Vol:	48	0	326	947	464	176
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	0	326	947	464	176
Added Vol:	4	0	0	0	0	27
ATI:	0	0	0	0	0	0
Initial Fut:	52	0	326	947	464	203
User Adj:	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
PHF Volume:	52	0	326	947	464	203
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	52	0	326	947	464	203
PCE Adj:	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
Final Volume:	52	0	326	947	464	203

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	2.00	0.00	1.00	2.00	0.70	0.30	0.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3150	0	1750	3150	1252	548	0	5700	1750	1750	5700	1750	

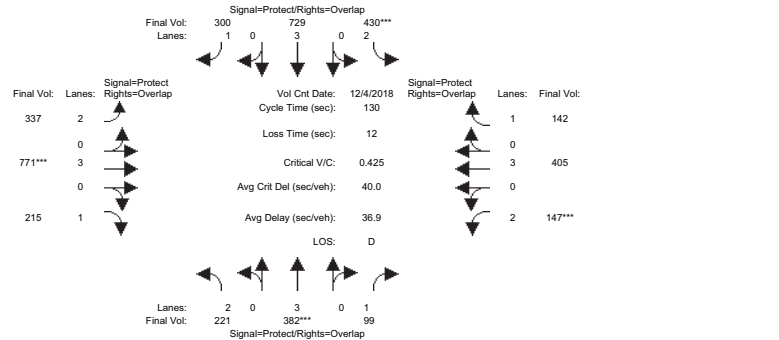
Capacity Analysis Module:	Vol/Sat:	0.02	0.00	0.19	0.30	0.37	0.37	0.00	0.24	0.04	0.07	0.16	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	8.9	0.0	23.0	60.9	75.7	75.7	0.0	49.3	58.3	14.0	63.3	0.0	
Volume/Cap:	0.30	0.00	1.30	0.79	0.78	0.78	0.00	0.79	0.11	0.79	0.40	0.00	
Delay/Veh:	73.4	0.0	229.0	47.5	40.0	40.0	0.0	53.1	33.8	95.0	34.8	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:	73.4	0.0	229.0	47.5	40.0	40.0	0.0	53.1	33.8	95.0	34.8	0.0	
LOS by Move:	E	A	F	D	D	D	A	D	C	F	C	A	
DesignQueue:	3	0	28	34	37	37	0	30	4	11	17	0	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3080: BLOSSOM HILL/SANTA TERESA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	4 Dec 2018	<<	5:00 - 6:00 PM						
Base Vol:	221	382	99	430	729	300	337	771	215	147	405	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	382	99	430	729	300	337	771	215	147	405	142
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	382	99	430	729	300	337	771	215	147	405	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	221	382	99	430	729	300	337	771	215	147	405	142
Reduce Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	382	99	430	729	300	337	771	215	147	405	142
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:	221	382	99	430	729	300	337	771	215	147	405	142

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	

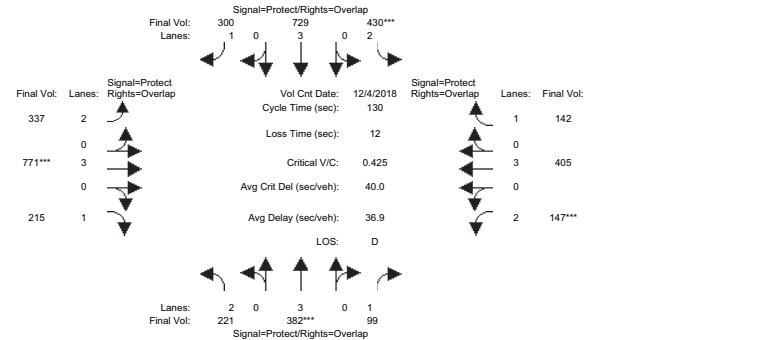
Capacity Analysis Module:	Vol/Sat:	0.07	0.07	0.06	0.14	0.13	0.17	0.11	0.14	0.12	0.05	0.07	0.08
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	22.1	20.5	34.8	41.8	40.2	72.6	32.4	41.4	63.5	14.3	23.3	65.1	
Volume/Cap:	0.41	0.42	0.21	0.42	0.41	0.31	0.43	0.42	0.25	0.42	0.40	0.16	
Delay/Veh:	48.7	49.7	37.2	34.9	35.7	15.5	41.4	35.1	19.6	54.9	47.4	17.7	
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:	48.7	49.7	37.2	34.9	35.7	15.5	41.4	35.1	19.6	54.9	47.4	17.7	
LOS by Move:	D	D	D	C	D	B	D	D	B	D	D	B	
DesignQueue:	8	8	6	13	13	11	11	13	9	6	8	6	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3080: BLOSSOM HILL/SANTA TERESA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	4 Dec 2018	<<	5:00 - 6:00 PM						
Base Vol:	221	382	99	430	729	300	337	771	215	147	405	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	382	99	430	729	300	337	771	215	147	405	142
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	382	99	430	729	300	337	771	215	147	405	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	221	382	99	430	729	300	337	771	215	147	405	142
Reduce Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	382	99	430	729	300	337	771	215	147	405	142
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:	221	382	99	430	729	300	337	771	215	147	405	142

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	

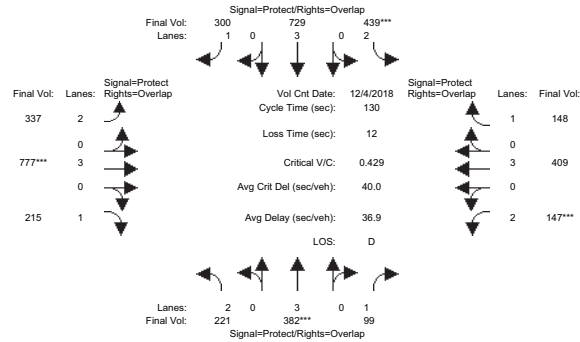
Capacity Analysis Module:	Vol/Sat:	0.07	0.07	0.06	0.14	0.13	0.17	0.11	0.14	0.12	0.05	0.07	0.08
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	22.1	20.5	34.8	41.8	40.2	72.6	32.4	41.4	63.5	14.3	23.3	65.1	
Volume/Cap:	0.41	0.42	0.21	0.42	0.41	0.31	0.43	0.42	0.25	0.42	0.40	0.16	
Delay/Veh:	48.7	49.7	37.2	34.9	35.7	15.5	41.4	35.1	19.6	54.9	47.4	17.7	
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:	48.7	49.7	37.2	34.9	35.7	15.5	41.4	35.1	19.6	54.9	47.4	17.7	
LOS by Move:	D	D	D	C	D	B	D	D	B	D	D	B	
DesignQueue:	8	8	6	13	13	11	11	13	9	6	8	6	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3080: BLOSSOM HILL/SANTA TERESA



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	4 Dec 2018	<<	5:00 - 6:00 PM
Base Vol:	221	382	99	430	729	300
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	382	99	430	729	300
Added Vol:	0	0	0	0	0	0
ATI:	0	0	0	0	0	0
Initial Fut:	221	382	99	439	729	300
User Adj:	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
PHF Volume:	221	382	99	439	729	300
Reduce Vol:	0	0	0	0	0	0
Reduced Vol:	221	382	99	439	729	300
PCE Adj:	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
Final Volume:	221	382	99	439	729	300

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750	

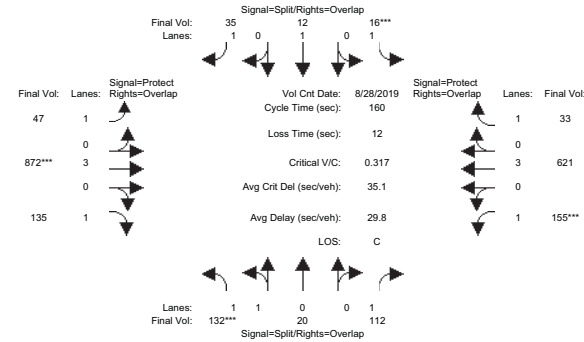
Capacity Analysis Module:	Vol/Sat:	0.07	0.07	0.06	0.14	0.13	0.17	0.11	0.14	0.12	0.05	0.07	0.08
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	22.2	20.3	34.5	42.2	40.4	72.6	32.3	41.3	63.5	14.1	23.2	65.4	
Volume/Cap:	0.41	0.43	0.21	0.43	0.41	0.31	0.43	0.43	0.25	0.43	0.40	0.17	
Delay/Veh:	48.6	49.9	37.4	34.7	35.6	15.4	41.5	35.2	19.6	55.0	47.5	17.6	
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:	48.6	49.9	37.4	34.7	35.6	15.4	41.5	35.2	19.6	55.0	47.5	17.6	
LOS by Move:	D	D	D	C	D	B	D	D	B	E	D	B	
DesignQueue:	8	8	6	13	13	11	11	13	9	6	8	6	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3314: BLOSSOM HILL/CAHALAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<	
Base Vol:	132	20	112	16	12	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	20	112	16	12	35
Added Vol:	0	0	0	0	0	0
ATI:	0	0	0	0	0	0
Initial Fut:	132	20	112	16	12	35
User Adj:	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
PHF Volume:	132	20	112	16	12	35
Reduce Vol:	0	0	0	0	0	0
Reduced Vol:	132	20	112	16	12	35
PCE Adj:	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
Final Volume:	132	20	112	16	12	35

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.74	0.26	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3083	467	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750	

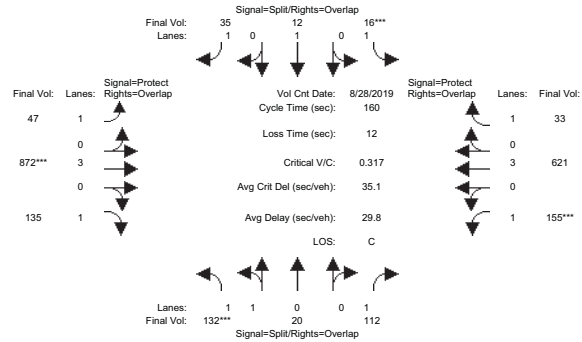
Capacity Analysis Module:	Vol/Sat:	0.04	0.04	0.06	0.01	0.01	0.02	0.03	0.15	0.08	0.09	0.11	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	20.8	20.8	63.8	10.0	10.0	43.6	33.6	74.2	95.0	43.0	83.6	93.6	
Volume/Cap:	0.33	0.33	0.16	0.15	0.10	0.07	0.13	0.33	0.13	0.33	0.21	0.03	
Delay/Veh:	63.7	63.7	31.0	71.6	71.1	43.3	51.5	27.2	14.4	47.4	20.5	14.0	
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:	63.7	63.7	31.0	71.6	71.1	43.3	51.5	27.2	14.4	47.4	20.5	14.0	
LOS by Move:	E	E	C	E	E	D	D	D	C	B	D	C	
DesignQueue:	6	6	7	1	1	2	4	14	5	11	9	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3314: BLOSSOM HILL/CAHALAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	132	20	112	16	12	35	47	872	135	155	621	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:	132	20	112	16	12	35	47	872	135	155	621	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	132	20	112	16	12	35	47	872	135	155	621	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:	132	20	112	16	12	35	47	872	135	155	621	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	20	112	16	12	35	47	872	135	155	621	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:	132	20	112	16	12	35	47	872	135	155	621	33

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.74	0.26	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3083	467	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750	

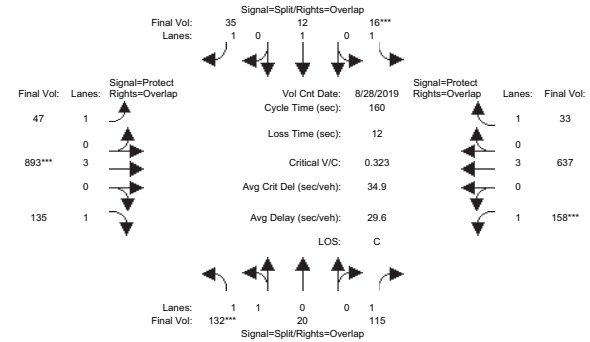
Capacity Analysis Module:	Vol/Sat:	0.04	0.04	0.06	0.01	0.01	0.02	0.03	0.15	0.08	0.09	0.11	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	20.8	20.8	63.8	10.0	10.0	43.6	33.6	74.2	95.0	43.0	83.6	93.6	
Volume/Cap:	0.33	0.33	0.16	0.15	0.10	0.07	0.13	0.33	0.13	0.33	0.21	0.03	
Delay/Veh:	63.7	63.7	31.0	71.6	71.1	43.3	51.5	27.2	14.4	47.4	20.5	14.0	
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:	63.7	63.7	31.0	71.6	71.1	43.3	51.5	27.2	14.4	47.4	20.5	14.0	
LOS by Move:	E	E	C	E	E	D	D	C	B	D	C	B	
DesignQueue:	6	6	7	1	1	2	4	14	5	11	9	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3314: BLOSSOM HILL/CAHALAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	132	20	112	16	12	35	47	872	135	155	621	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:	132	20	112	16	12	35	47	872	135	155	621	33
Added Vol:	0	0	3	0	0	0	0	0	21	0	3	16
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	132	20	115	16	12	35	47	893	135	158	637	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:	132	20	115	16	12	35	47	893	135	158	637	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	20	115	16	12	35	47	893	135	158	637	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:	132	20	115	16	12	35	47	893	135	158	637	33

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.74	0.26	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	3083	467	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750	

Capacity Analysis Module:	Vol/Sat:	0.04	0.04	0.07	0.01	0.01	0.02	0.03	0.16	0.08	0.09	0.11	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	20.4	20.4	63.4	10.0	10.0	43.1	33.1	74.6	95.0	43.0	84.5	94.5	
Volume/Cap:	0.34	0.34	0.17	0.15	0.10	0.07	0.13	0.34	0.13	0.34	0.21	0.03	
Delay/Veh:	64.1	64.1	31.3	71.6	71.1	43.7	51.9	27.1	14.4	47.5	20.1	13.7	
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:	64.1	64.1	31.3	71.6	71.1	43.7	51.9	27.1	14.4	47.5	20.1	13.7	
LOS by Move:	E	E	C	E	E	D	D	C	B	D	C	B	
DesignQueue:	6	6	7	1	1	2	4	15	5	11	9	1	

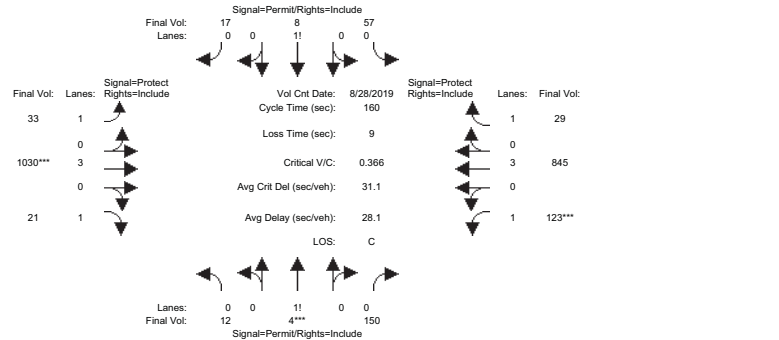
Note: Queue reported is the number of cars per lane.



Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3316: BLOSSOM HILL/CHESBRO



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.07	0.02	0.91	0.69	0.10	0.21	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	127	42	1581	1216	171	363	1750	5700	1750	1750	5700	1750

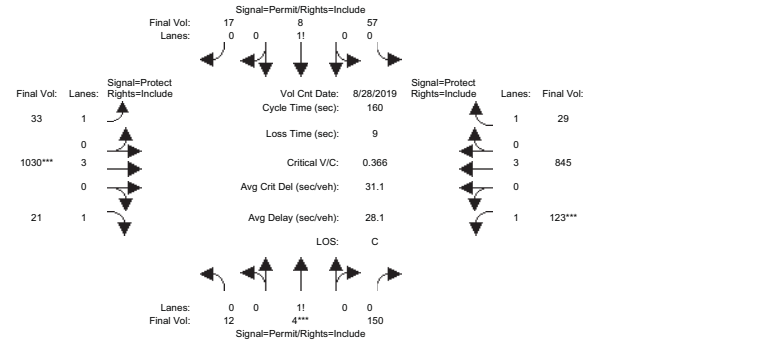
Capacity Analysis Module:	Vol/Sat:	0.09	0.09	0.09	0.05	0.05	0.05	0.02	0.18	0.01	0.07	0.15	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	41.4	41.4	41.4	41.4	41.4	25.0	78.9	78.9	30.7	84.6	84.6	84.6	
Volume/Cap:	0.37	0.37	0.37	0.18	0.18	0.18	0.12	0.37	0.02	0.37	0.28	0.03	
Delay/Veh:	49.1	49.1	49.1	46.3	46.3	46.3	58.3	25.2	20.8	56.9	20.9	18.1	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	49.1	49.1	49.1	46.3	46.3	46.3	58.3	25.2	20.8	56.9	20.9	18.1	
LOS by Move:	D	D	D	D	D	D	E	C	C	E	C	B	
DesignQueue:	12	12	12	6	6	6	3	16	1	10	12	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3316: BLOSSOM HILL/CHESBRO



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.07	0.02	0.91	0.69	0.10	0.21	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	127	42	1581	1216	171	363	1750	5700	1750	1750	5700	1750

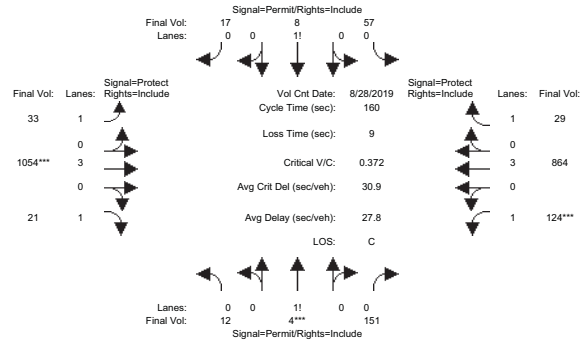
Capacity Analysis Module:	Vol/Sat:	0.09	0.09	0.09	0.05	0.05	0.05	0.02	0.18	0.01	0.07	0.15	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	41.4	41.4	41.4	41.4	41.4	25.0	78.9	78.9	30.7	84.6	84.6	84.6	
Volume/Cap:	0.37	0.37	0.37	0.18	0.18	0.18	0.12	0.37	0.02	0.37	0.28	0.03	
Delay/Veh:	49.1	49.1	49.1	46.3	46.3	46.3	58.3	25.2	20.8	56.9	20.9	18.1	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	49.1	49.1	49.1	46.3	46.3	46.3	58.3	25.2	20.8	56.9	20.9	18.1	
LOS by Move:	D	D	D	D	D	D	E	C	C	E	C	B	
DesignQueue:	12	12	12	6	6	6	3	16	1	10	12	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3316: BLOSSOM HILL/CHESBRO



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	12	4	150	57	8	17	33	1030	21	123	845	29
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:	12	4	150	57	8	17	33	1030	21	123	845	29
Added Vol:	0	0	1	0	0	0	0	24	0	1	19	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	4	151	57	8	17	33	1054	21	124	864	29
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:	12	4	151	57	8	17	33	1054	21	124	864	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	4	151	57	8	17	33	1054	21	124	864	29
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:	12	4	151	57	8	17	33	1054	21	124	864	29

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.07	0.02	0.91	0.69	0.10	0.21	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	126	42	1582	1216	171	363	1750	5700	1750	1750	5700	1750

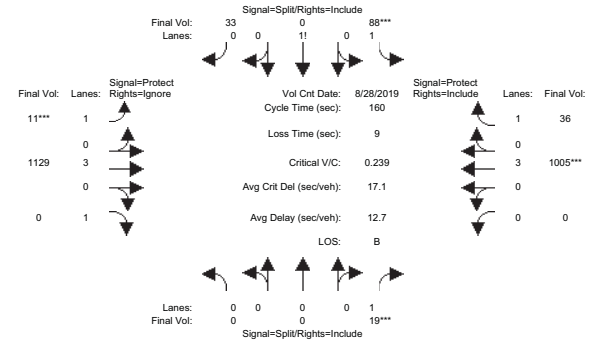
Capacity Analysis Module:	Vol/Sat:	0.10	0.10	0.10	0.05	0.05	0.05	0.02	0.18	0.01	0.07	0.15	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	41.0	41.0	41.0	41.0	41.0	41.0	24.6	79.5	30.5	85.3	85.3	85.3	
Volume/Cap:	0.37	0.37	0.37	0.18	0.18	0.18	0.12	0.37	0.02	0.37	0.28	0.03	
Delay/Veh:	49.4	49.4	49.4	46.6	46.6	46.6	58.6	24.9	20.5	57.1	20.6	17.7	
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:	49.4	49.4	49.4	46.6	46.6	46.6	58.6	24.9	20.5	57.1	20.6	17.7	
LOS by Move:	D	D	D	D	D	D	E	C	C	E	C	B	
DesignQueue:	12	12	12	6	6	6	3	17	1	10	12	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3321: BLOSSOM HILL/INDIAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	0	0	19	88	0	33	11	1129	18	0	1005	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:	0	0	19	88	0	33	11	1129	18	0	1005	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	19	88	0	33	11	1129	18	0	1005	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	19	88	0	33	11	1129	0	0	1005	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	19	88	0	33	11	1129	0	0	1005	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	0	0	19	88	0	33	11	1129	0	0	1005	36

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	1.00	1.57	0.00	0.43	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	1750	2750	0	750	1750	5700	1750	0	5700	1750

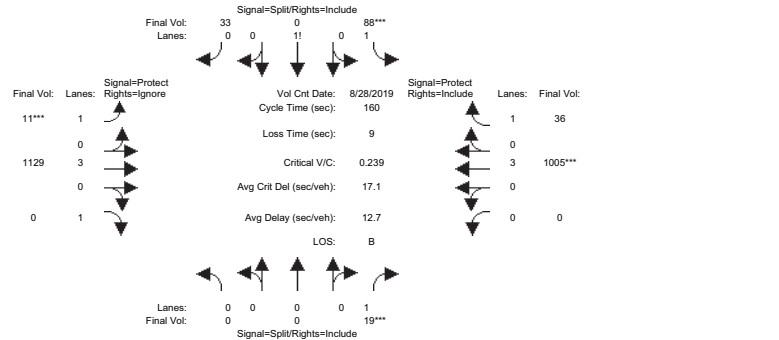
Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.01	0.03	0.00	0.04	0.01	0.20	0.00	0.00	0.18	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	10.0	26.8	0.0	26.8	7.0	114	0.0	0.0	107	107.2	
Volume/Cap:	0.00	0.00	0.17	0.19	0.00	0.26	0.14	0.28	0.00	0.00	0.26	0.03	
Delay/Veh:	0.0	0.0	71.8	57.5	0.0	58.3	74.5	8.2	0.0	0.0	10.6	8.9	
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:	0.0	0.0	71.8	57.5	0.0	58.3	74.5	8.2	0.0	0.0	10.6	8.9	
LOS by Move:	A	A	E	E	A	E	E	A	A	A	B	A	
DesignQueue:	0	0	2	5	0	6	1	10	0	0	10	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3321: BLOSSOM HILL/INDIAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	0	0	19	88	0	33	11	1129	18	0	1005	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:	0	0	19	88	0	33	11	1129	18	0	1005	36
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	19	88	0	33	11	1129	18	0	1005	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	19	88	0	33	11	1129	0	0	1005	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	19	88	0	33	11	1129	0	0	1005	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	0	0	19	88	0	33	11	1129	0	0	1005	36

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	1.00	1.57	0.00	0.43	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	1750	2750	0	750	1750	5700	1750	0	5700	1750

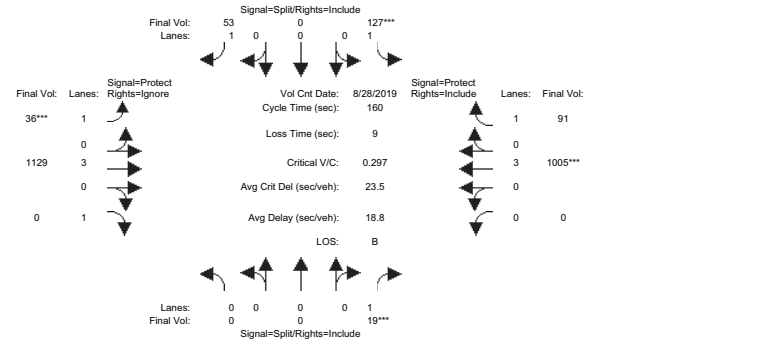
Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.01	0.03	0.00	0.04	0.01	0.20	0.00	0.00	0.18	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	0.0	0.0	10.0	26.8	0.0	26.8	7.0	114	0.0	0.0	107	107.2	
Volume/Cap:	0.00	0.00	0.17	0.19	0.00	0.26	0.14	0.28	0.00	0.00	0.26	0.03	
Delay/Veh:	0.0	0.0	71.8	57.5	0.0	58.3	74.5	8.2	0.0	0.0	10.6	8.9	
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:	0.0	0.0	71.8	57.5	0.0	58.3	74.5	8.2	0.0	0.0	10.6	8.9	
LOS by Move:	A	A	E	E	A	E	E	A	A	A	B	A	
DesignQueue:	0	0	2	5	0	6	1	10	0	0	10	1	

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

Blossom Hill Station TOD TA  
328 DU + 22,595 SF Retail

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

Intersection #3321: BLOSSOM HILL/INDIAN



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	10	10	0	10	7	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>>	Count	Date:	28 Aug 2019	<<							
Base Vol:	0	0	19	88	0	33	11	1129	18	0	1005	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:	0	0	19	88	0	33	11	1129	18	0	1005	36
Added Vol:	0	0	0	39	0	20	25	0	0	0	0	55
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	19	127	0	53	36	1129	18	0	1005	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	19	127	0	53	36	1129	0	0	1005	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	19	127	0	53	36	1129	0	0	1005	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Final Volume:	0	0	19	127	0	53	36	1129	0	0	1005	91

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	1.00	1.00	0.00	1.00	1.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	1750	1750	0	1750	1750	5700	1750	0	5700	1750

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.01	0.07	0.00	0.03	0.02	0.20	0.00	0.00	0.18	0.05
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	0.0	0.0	10.0	38.0	0.0	38.0	10.8	103	0.0	0.0	92.3	92.3	
Volume/Cap:	0.00	0.00	0.17	0.31	0.00	0.13	0.31	0.31	0.00	0.00	0.31	0.09	
Delay/Veh:	0.0	0.0	71.8	50.6	0.0	48.1	72.5	12.7	0.0	0.0	17.5	15.2	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	71.8	50.6	0.0	48.1	72.5	12.7	0.0	0.0	17.5	15.2	
LOS by Move:	A	A	E	D	A	D	E	B	A	A	B	B	
DesignQueue:	0	0	2	10	0	4	3	13	0	0	13	4	

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