Appendix F

Transportation Study

HEXAGON TRANSPORTATION CONSULTANTS, INC.

2375 & 2395 S. Bascom Avenue Senior Assisted Living Development

Transportation Analysis

Prepared for:

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Executive Summary

This report presents the results of the Transportation Analysis (TA) conducted for a proposed senior assisted living development at 2375 and 2395 Bascom Avenue in San Jose, California. The project site is located within the South Bascom Avenue (south) Urban Village boundary per the Envision San Jose 2040 General Plan. As proposed, the project would demolish the existing commercial uses on the site and construct a 93-bed senior assisted living development. Access to the site would be provided via one right-in/right-out driveway on South Bascom Avenue. This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed assisted living development.

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

CEQA Transportation Analysis

The VMT generated by the project (12.41 VMT per employee) would exceed the threshold of 12.22 VMT per employee; therefore, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. 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.

Mitigation: Implement on- and off-site pedestrian improvements. Improving pedestrian connections encourages people to walk instead of drive and reduces VMT. In addition to the planned sidewalk improvements along the project frontage (15-foot sidewalk), it is recommended that the project install a crosswalk via a signal modification on the south leg of the South Bascom Avenue and Dry Creek Road intersection to mitigate the significant transportation impact on VMT. This pedestrian network improvement is feasible and would require installing pedestrian signal heads and push buttons on the existing signal poles, as well as installing new ADA compliant curb ramps, on both the southwest corner and southeast corner (pork chop island) of the intersection. The existing bus stop and associated pad on the west side of South Bascom Avenue may need to be shifted slightly to the south so it would not

conflict with the new crosswalk. Based on the City's sketch tool, adding these pedestrian network improvements to the intersection would lower the project VMT to 12.16 per employee, which is below the threshold of 12.22 VMT per employee. Note that the improvements would require coordination with City of San Jose staff.

Local Transportation Analysis

Project Trip Generation

After applying the ITE *Trip Generation Manual* rates to the proposed project and applying the appropriate trip adjustments and credits, the project would be expected to generate 121 new daily vehicle trips, with 7 new trips occurring during the AM peak hour and 14 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 5 new inbound trips and 2 new outbound trip during the AM peak hour, and 5 new inbound trips and 9 new outbound trips during the PM peak hour.

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, the signalized study intersection would not be adversely affected by the project.

Other Transportation Items

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

- Keep the garage security gate open during the time periods of the day when most project-generated inbound vehicle trips are likely to occur.
- Provide transition grades of 10 percent or less at both the top and bottom of the internal garage ramp, and install a convex mirror at the bottom of the garage ramp to help with the blind turn.
- Widen the 20-foot wide segment of drive aisle within the below-grade parking level to at least 24 feet wide.
- Provide one timed loading zone along the project frontage on South Bascom Avenue to serve passenger loading, residential move in/out, and general deliveries. The inclusion of a timed loading zone would be determined in coordination with the public improvement plans.
- Construct a 15-foot wide sidewalk along the project frontage on South Bascom Avenue (Grand Boulevard) as required by the Envision San Jose 2040 General Plan. This improvement is being proposed by the project and is shown on the site plan.

1. Introduction

This report presents the results of the Transportation Analysis (TA) conducted for a proposed senior assisted living development at 2375 and 2395 Bascom Avenue in San Jose, California (see Figure 1). The project site is located within the South Bascom Avenue (south) Urban Village boundary per the Envision San Jose 2040 General Plan. As proposed, the project would demolish the existing commercial uses on the site and construct an 93-bed senior assisted living development. Access to the site would be provided via one right-in/right-out driveway on South Bascom Avenue. This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed assisted living development. The project site plan is shown on Figure 2.

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

Transportation Policies

In adherence with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose has adopted a new Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Council Policy 5-3) and establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT) instead of intersection level of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. All new projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1. The new Transportation Analysis Policy took effect on March 29, 2018.

The new Transportation Analysis Policy 5-1 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.

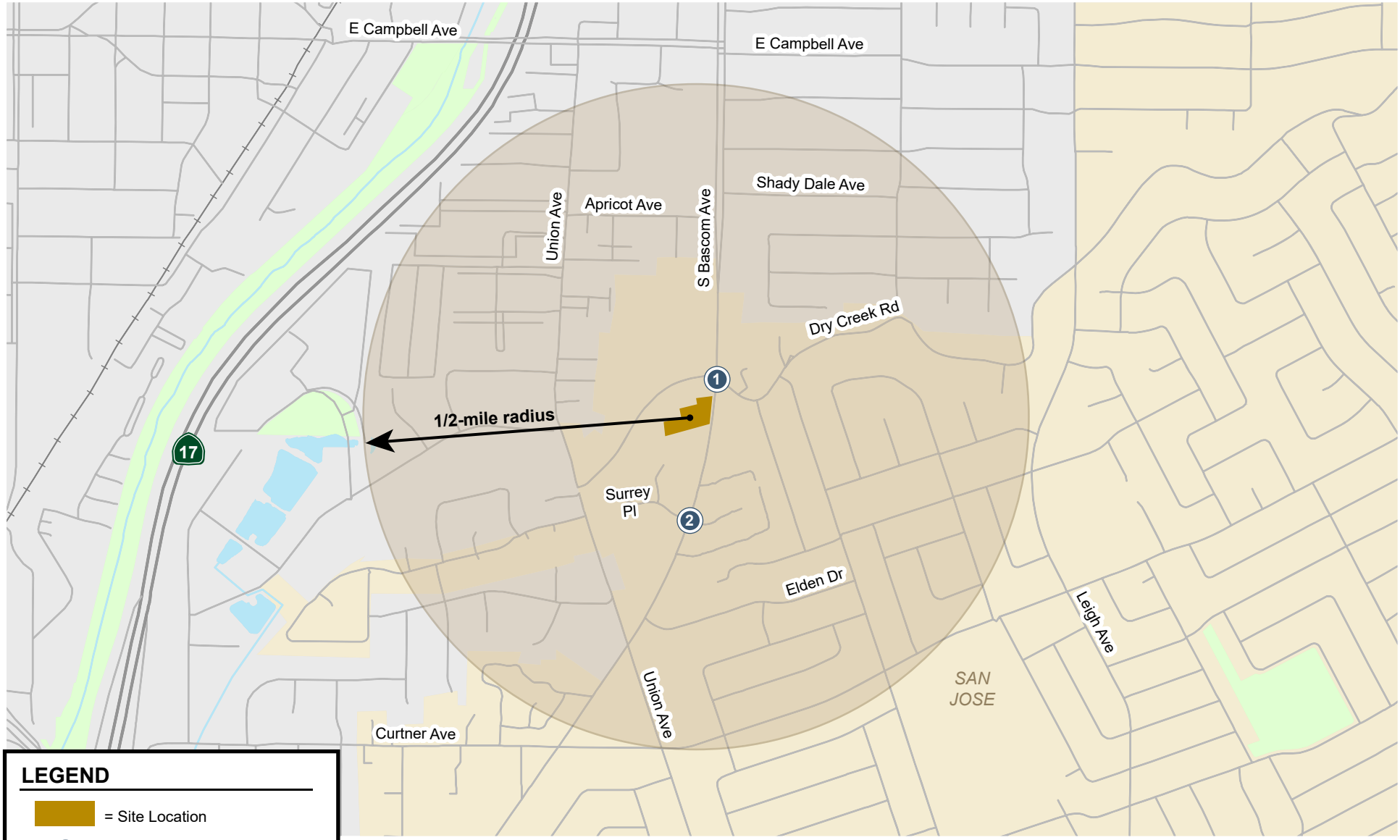


Figure 1
Site Location and Study Intersections

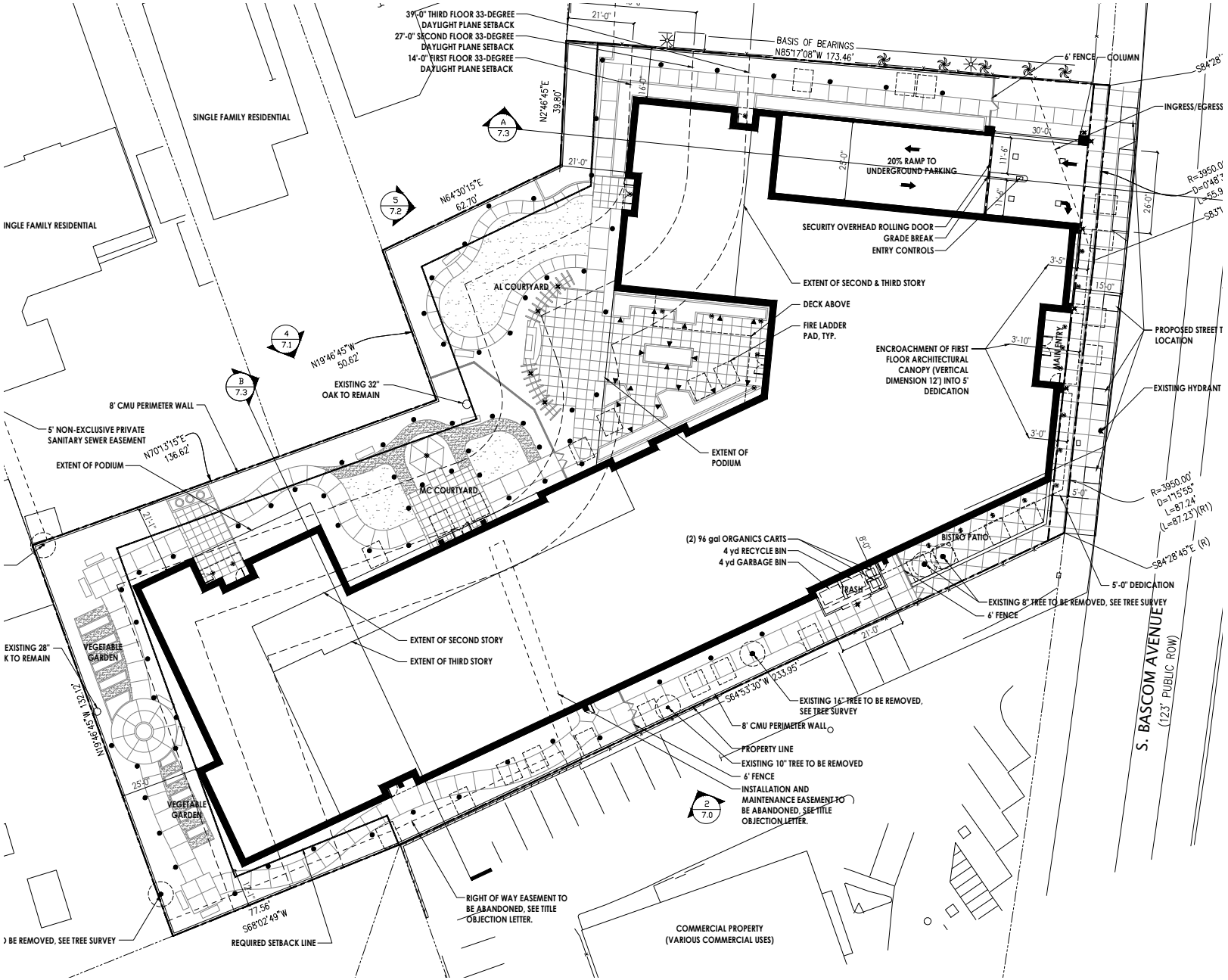


Figure 2
Site Plan

HEXAGON

NORTH
Not to Scale

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);
- Require large employers to develop and maintain TDM programs to reduce the vehicle trips generated by their employees (TR-7.1);
- Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services (TR-8.1);
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages 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).

Urban Villages and Complete Streets

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.

The project site is located within the South Bascom (south) Urban Village boundary of San Jose, though an official Urban Village Plan has not yet been approved for the area. Once approved, the South Bascom (south) Urban Village Plan will provide more detailed information related to the allowed uses, development density and FAR for all the sites contained within the Urban Village boundary, which includes the segment of South Bascom Avenue between Dry Creek Road and the Farnham residential neighborhood located south of Camden Avenue. Urban Village Plans may also recommend that some sites within an Urban Village boundary be changed to another Land Use designation in order to better represent the land uses identified in the Urban Village Plan. Ultimately, the Urban Village Plan will guide the development of the South Bascom (south) area as a more urban and walkable corridor with an emphasis on connectivity, an appealing streetscape, and equitable access for all users.

The project site is also located within the South Neighborhood segment of the VTA's Bascom Corridor Complete Streets Study area. Complete Street design guidelines are intended to ensure that streets are comfortable and welcoming to all modes of travel, as well as eliminate traffic-related deaths and severe injuries. The South Neighborhood stretches south from Dry Creek Road to Camden Avenue. Land uses along this segment of the corridor are primarily commercial with access to residential areas in surrounding neighborhoods. The Bascom Corridor Complete Streets Study is a joint effort between VTA, the Cities of San Jose and Campbell, and the County of Santa Clara. The study area includes approximately six miles of Bascom Avenue from Interstate 880 near the Bascom-Forest and Rose Garden neighborhoods in San Jose, past Valley Medical Center and the Pruneyard in Campbell, and down to the Farnham and Ponderosa neighborhoods near State Route 85. The purpose of the corridor study, which is funded through a Federal grant and local match, is to enhance pedestrian and bicycle mobility and safety, improve bus transit, beautify the streetscape, and ensure South Bascom Avenue serves all motorists.

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 ("sketch tool") to streamline the analysis. Based on the project description, location, and proposed trip reduction measures, the VMT tool calculates VMT and compares it to the appropriate thresholds of significance based on the project location and type of development. However, the City's VMT Evaluation Tool is limited to the evaluation of the general land use categories of residential, office, industrial, and retail. Therefore, the use of the VMT tool for land uses that are not reflective of one of the four general land uses, such as the proposed senior assisted living facility, requires the conversion of the proposed land use to an equivalent amount of one of the following: residential units, office space, industrial space, or retail space. For the purpose of VMT evaluation, the proposed senior assisted living facility was converted to equivalent office space to provide an estimate of VMT. This is a reasonable approach to VMT analysis for the project, since the employees of the senior assisted living facility would produce the majority of site-generated traffic.

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. Figure 3 shows the current VMT levels estimated by the City for workers based on the locations of jobs. Developments in the green-colored areas are estimated to have VMT levels that are below the thresholds of significance, while the orange- and pink-colored areas are estimated to have VMT levels that are above the thresholds of significance.

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

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 proximate area of the project.

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

Study Intersections:

1. South Bascom Avenue and Dry Creek Road (signalized)
2. South Bascom Avenue and Surrey Place (unsignalized)

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

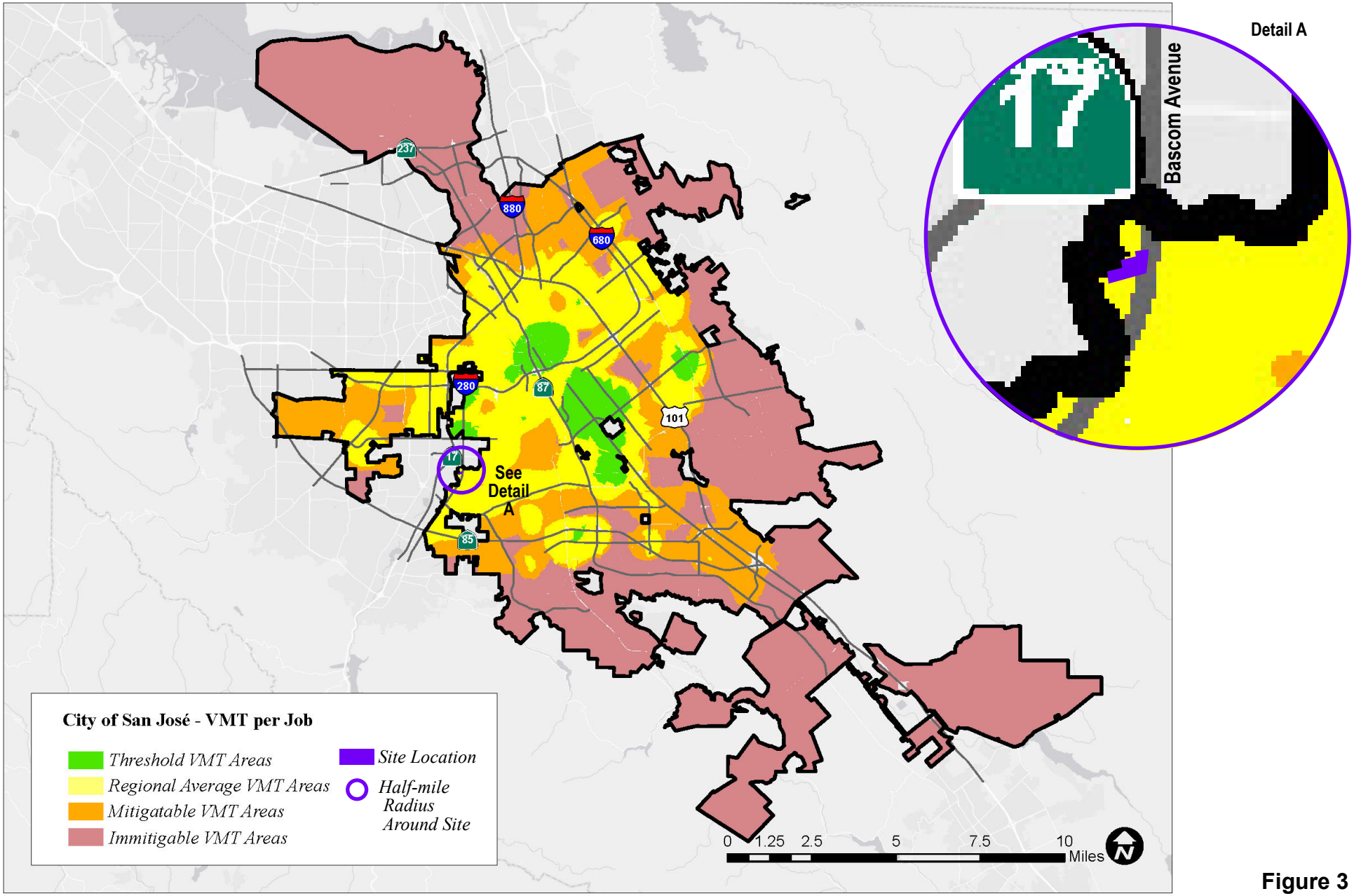


Figure 3
VMT Heat Map for Workers in San Jose

Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing AM and PM peak hour traffic volumes were obtained from new manual turning-movement counts conducted on October 8, 2019 (included in Appendix A). The new count data have been reviewed and approved by City of San Jose Department of Transportation staff for use in this traffic study. The signalized study intersection was evaluated with a level of service analysis using TRAFFIX software in accordance with the *2000 Highway Capacity Manual* methodology.
- ***Background Conditions*.** Background traffic volumes are 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 typically provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). However, ATI is not available for the study intersections because there are no approved projects near the site. Thus, background conditions presented in this traffic study are identical to existing conditions. Background conditions 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 Conditions.*** Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project.

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

VMT Analysis Methodology

Methodology

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool ("sketch tool") to streamline the analysis for residential, office, industrial, and retail 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. The City's sketch tool calculates VMT and compares it to the appropriate thresholds of significance based on the project location and type of development. However, the sketch tool is limited to the evaluation of the general land use categories of residential, office, industrial, and retail. Therefore, the use of the VMT tool for land uses that are not reflective of one of the four general land uses, such as the proposed senior assisted living facility, requires the conversion of the proposed land use to an equivalent amount of the appropriate general land use. Accordingly, the proposed senior assisted living facility was converted to equivalent office space to provide an estimate of project VMT and determine whether the project would result in a significant VMT impact. This is a reasonable approach to VMT analysis for the project, since the employees of the senior assisted living facility would produce the majority of site-generated traffic.

Based on the standard daily trip generation rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (2017) for "Assisted Living" (ITE Land Use 254) and "General Office Building" (ITE Land Use 710), an assisted living facility with 93 beds is estimated to generate the same number of daily trips as 24,800 square feet of office space (see Table 1). Also, since the majority of trips generated by an assisted living facility are generated by the employees, trips generated by the employees of both land uses are assumed to have similar travel patterns and trip length characteristics.

Table 1
Conversion of Assisted Living Use to General Office Use for VMT Analysis

Land Use	Size		Daily Trip Rate	Daily Trips
Assisted Living[1]	93	beds	2.60	242
General Office[3]	24,800	sq.ft.	9.74	242

Source: ITE Trip Generation Manual, 10th Edition, 2017.
1. Avg daily trip rate (trips/bed) for Assisted Living (Land Use 254).
3. Avg daily trip rate (trips/1,000 SF) for General Office Building (Land Use 710).

Based on the assessor's parcel number (APN) of a project, the sketch 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 sketch 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 sketch 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 sketch 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 2 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 office developments and 15 percent below the citywide average for residential developments. Thus, projects that include general employment uses (office) are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing regional average VMT per employee minus 15 percent. Currently, the reported regional average is 14.37 VMT per employee. This equates to a significant impact threshold of 12.21 VMT per employee. Projects that include residential uses are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing citywide average VMT per capita minus 15 percent. Currently, the reported citywide average is 11.91 VMT per capita. This equates to a significant impact threshold of 10.12 VMT per capita.

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

Table 2
VMT Thresholds of Significance for Development Projects (March 2018)

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

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

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. The study intersections are located within the City of San Jose and were evaluated according to the City of San Jose standards.

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

Analysis Methodologies and Level of Service Standard

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

Signalized Intersections

The signalized study intersection is 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 3.

Table 3
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).

Unsignalized Intersections

The traffic study evaluated the unsignalized intersection of Bascom Avenue and Surrey Place. The City of San Jose has not established a level of service standard for unsignalized intersections. Therefore, the unsignalized study intersection was evaluated for potential operational issues only. Traffic conditions at the unsignalized study intersection was assessed to determine whether a traffic signal would be warranted based on the peak-hour volume signal warrant (Warrant #3) described in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify installation of a traffic signal. However, this is just one tool used to evaluate whether installation of a traffic signal would be justified. Intersections that meet the peak-hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis is recommended and may include additional signal warrants, unsignalized level of service analysis, and/or operational analysis such as evaluating vehicle queuing and delay. Other types of traffic control devices, signage, or geometric changes may be preferable at unsignalized locations based on existing field conditions.

Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook, 2018*, an adverse effect on signalized 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 study intersections where the project would add a noteworthy number of trips to the left-turn movements. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

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

Where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

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

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

Report Organization

This report has a total of 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, and bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis and cumulative transportation impact assessment. Chapter 4 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effects on the transportation system, and an analysis of other transportation issues including site access and circulation, parking, transit services, and bicycle and pedestrian facilities. Chapter 5 presents the conclusions of the transportation analysis.

2. Existing Transportation Conditions

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 ("sketch 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 residential uses in the project vicinity is 11.22 per capita, and the existing VMT for office uses in the project vicinity is 12.42 per employee. The current citywide average VMT for residential uses is 11.91 per capita and the regional average VMT for employment uses is 14.37 per employee (see Table 1 in Chapter 1). Thus, the VMT levels of existing residential uses in the project vicinity are less than the citywide average VMT levels, and the VMT levels of existing employment uses in the project vicinity are less than the regional average VMT levels. The sketch tool summary report for the project is included in Chapter 3.

Existing Roadway Network

Regional access to the project site is provided via State Route 17. Direct access to the site is provided via South Bascom Avenue. Other roadways in the project vicinity include Union Avenue, Dry Creek Road and Surrey Place. These facilities are described below.

SR 17 is primarily a four-lane to six-lane freeway that is aligned in a north-south orientation within the project vicinity. SR 17 begins at its interchange with I-280, where I-880 ends, and extends southward, terminating at its junction with SR-1 in Santa Cruz. Site access to and from SR 17 is provided via Camden Avenue and Hamilton Avenue.

South Bascom Avenue is a north-south six-lane arterial, designated as a Grand Boulevard in the General Plan, that extends from Stevens Creek Boulevard southward and ultimately becomes Los Gatos Boulevard south of SR-85. The City of San Jose identifies Grand Boulevards as roadways serving major corridors that tie land use with major transportation facilities. Land uses located along South Bascom Avenue are generally commercial, with parking provided on both sides of the street in most areas. No parking is provided along the project frontage (curbs are painted red), but parking is provided just south of the site. South Bascom Avenue has a posted speed limit of 40 mph within the study area. It has a raised median island with left-turn pockets in the study area and sidewalks are located on both sides of the street.

Union Avenue is a two- to four-lane north-south City Connector Street that provides access to the site via its intersection with South Bascom Avenue. It extends from Campbell Avenue in Campbell to Los Gatos, where it terminates at Blossom Hill Road. In the study area, Union Avenue has a posted speed limit of 35 mph and consists of two travel lanes in each direction with a center two-way left-turn (TWLT) lane. Sidewalks and striped bike lanes are present on both sides of the street south of South Bascom Avenue.

Dry Creek Road is generally an east-west, two-lane, winding road that extends from Union Avenue to Cherry Avenue. Dry Creek Road has a posted speed limit of 25 mph and provides access to the project site via its intersection with Bascom Avenue. Sidewalks are provided on both sides of the street near its intersection with South Bascom Avenue; however, many segments of Dry Creek Road are missing sidewalks.

Surrey Place is a short, two-lane, undivided road that extends west from South Bascom Avenue and provides access to a small pocket of homes. Unsignalized access to Surrey Place is provided via South Bascom Avenue. Northbound and southbound left-turn pockets are provided at the unsignalized intersection, providing an opportunity for U-turns. Surrey Place has a speed limit of 25 mph and has sidewalks on both sides of the street.

Existing Pedestrian, Bicycle and Transit Facilities

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

Existing Pedestrian Facilities

Pedestrian facilities in the study area consist of sidewalks along the network of public streets. Crosswalks with pedestrian signal heads and push buttons are located on three legs of the signalized intersection of South Bascom Avenue and Dry Creek Road. There is no crosswalk on the south leg of the intersection (across Bascom Avenue). The existing network of sidewalks provides connections to nearby bus stops.

Existing Bicycle Facilities

Some of the roadways in the project study area have Class II bike lanes (see Figure 4). However, there are no bike lanes on S. Bascom Avenue in front of the site or on Dry Creek Road. Striped bike lanes currently exist on the following roadway segments:

- South Bascom Avenue, north of Apricot Avenue
- Union Avenue, south of South Bascom Avenue and north of East McGlincy Lane
- Curtner Avenue
- East Campbell Avenue, between South Bascom Avenue and the Los Gatos Creek Trail
- Leigh Avenue, north of Dry Creek Road and south of Curtner Avenue

Existing Transit Services

Existing transit service near the project site is provided by the Santa Clara Valley Transportation Authority (VTA). Local bus routes 26, 61 and 62 operate along Bascom Avenue. Bus route 62 also operates along Union Avenue south of Bascom Avenue, and bus route 26 also operates along Curtner Avenue and Campbell Avenue. Bus route 65 operates along Leigh Avenue (see Figure 5). Routes 26, 61 and 62 all stop on South Bascom Avenue, just 150 feet north of the project site. Buses can carry bicycles. All the VTA bus routes within the project vicinity and their headways are summarized in Table 4.

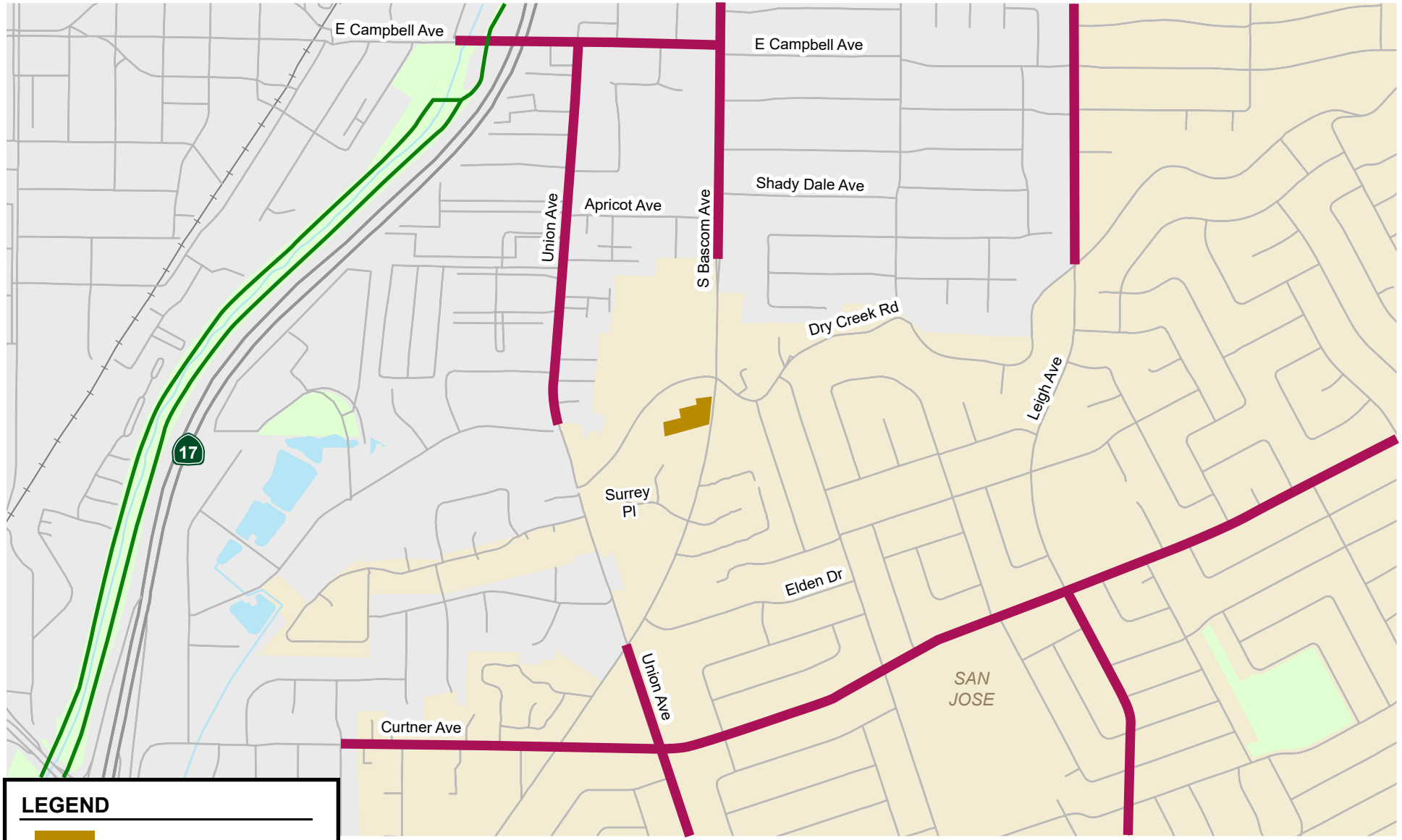


Figure 4
Existing Bicycle Facilities

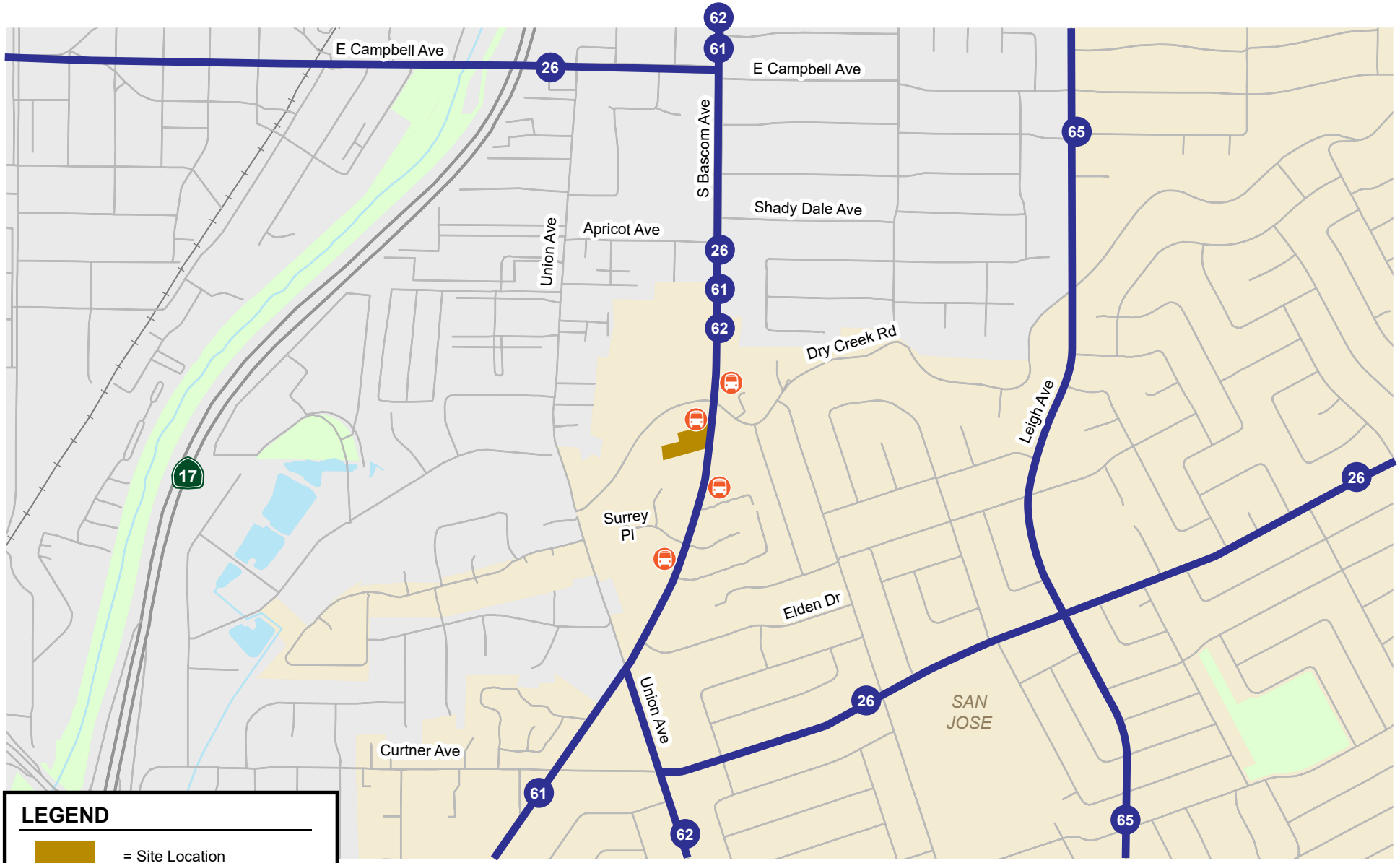


Figure 5
Existing Transit Service

HEXAGON

NORTH
Not to Scale

Table 4
Existing Bus Routes

Bus Route	Route Description	Headway [1]
Local Route 26	Eastridge Shopping Center to Lockheed Martin Transit Center	30 min
Local Route 61	Good Samaritan Hospital to Sierra/Piedmont (via Bascom Av)	30 min
Local Route 62	Good Samaritan Hospital to Sierra/Piedmont (via Union Av)	30 min
Local Route 65	Kooser Rd/Blossom Hill Rd to 13th St/Hedding St	40-50 min

Notes:
[1] Approximate headways during peak weekday commute periods.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 6.

Observed Existing Traffic Conditions

Traffic conditions were observed in the field to identify any existing operational deficiencies. The study intersections operated well during both the weekday AM and PM peak hours of traffic and no operational issues were observed.

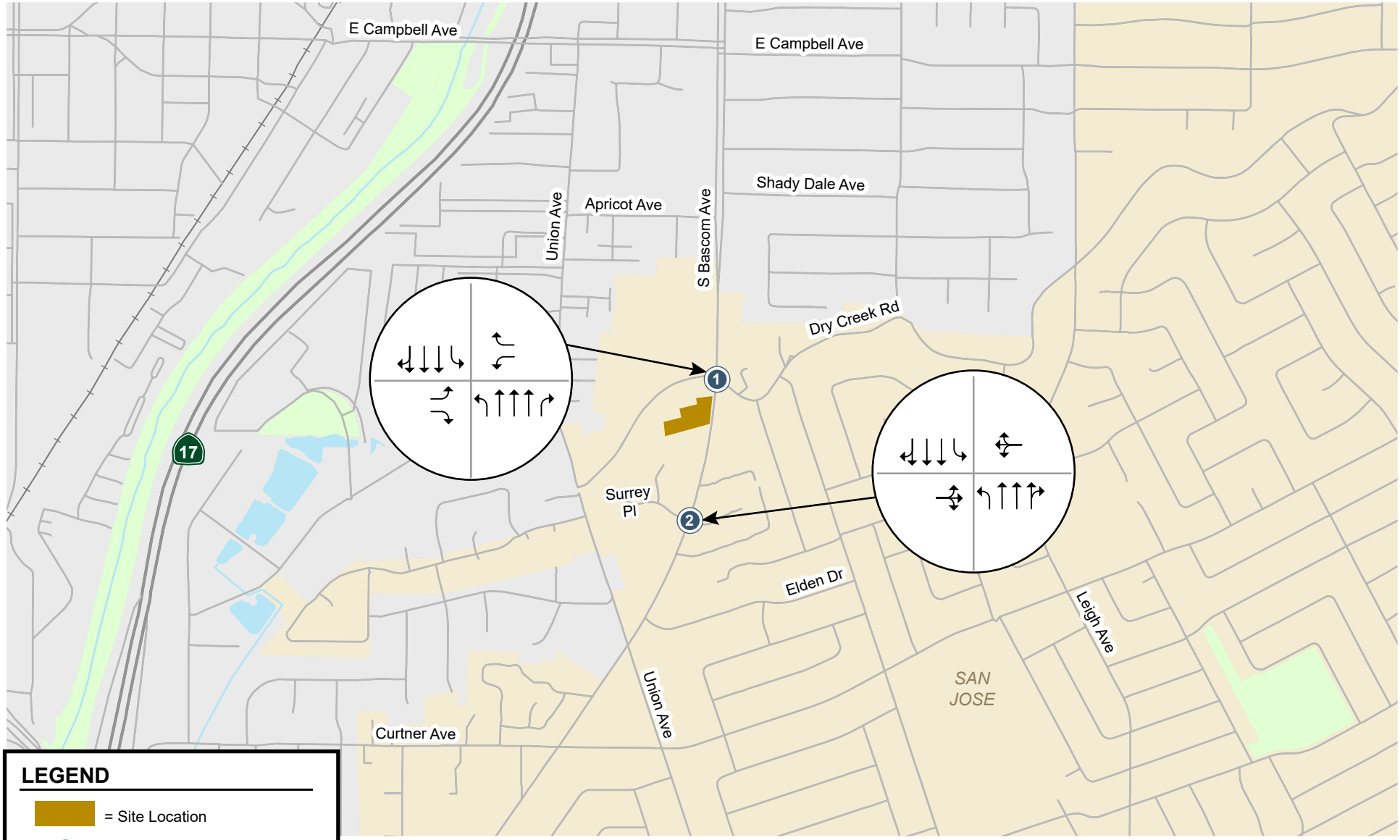


Figure 6
Existing Lane Configurations

3. CEQA Transportation Analysis

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

Project-Level VMT Impact Analysis

The project-level impact analysis under CEQA uses the VMT metric to evaluate a project's transportation impacts by comparing against the VMT thresholds of significance as established in the Transportation Analysis Policy. The San Jose VMT Evaluation Tool (sketch tool) is used to estimate the project VMT based on the project location (APN), type of development, project description, and proposed trip reduction measures. The thresholds of significance for residential and general employment uses (see Table 1 in Chapter 1) are used for the VMT analysis. The VMT threshold for residential uses is the existing citywide average VMT level (11.91 per capita) minus 15 percent, which is 10.12 VMT per capita. The VMT threshold for general employment uses is the existing regional average VMT level (14.37 per capita) minus 15 percent, which is 12.22 VMT per employee.

The City of San Jose's *Transportation Analysis Handbook, 2018* includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. The proposed project does not meet the screening criteria; therefore, the project requires a VMT analysis.

For the purpose of VMT evaluation, the proposed senior assisted living facility was converted to equivalent office space to provide an estimate of VMT. This is a reasonable approach to VMT analysis for the project, since the employees of the senior assisted living facility would produce the majority of site-generated traffic. Based on the land use conversion (applying standard ITE rates), an assisted living facility with 93 beds is estimated to generate the same number of daily trips as 24,800 square feet of office space (see Table 1 in Chapter 1).

Project VMT Impact Analysis Results

The project VMT estimated by the sketch tool is 12.41 per employee. The project VMT, therefore, exceeds the threshold of 12.22 VMT per employee. Figure 7 shows the VMT evaluation summary report generated by the City of San Jose's VMT Evaluation Tool.

Project Impacts and Mitigation Measures

> **Impact:** The VMT generated by the project (12.41 VMT per employee) would exceed the threshold of 12.22 VMT per employee; therefore, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. 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.

Mitigation: Implement on- and off-site pedestrian improvements. Improving pedestrian connections encourages people to walk instead of drive and reduces VMT. In addition to the planned sidewalk improvements along the project frontage (15-foot sidewalk), it is recommended that the project install a crosswalk via a signal modification on the south leg of the South Bascom Avenue and Dry Creek Road intersection to mitigate the significant transportation impact on VMT. This pedestrian network improvement is feasible and would require installing pedestrian signal heads and push buttons on the existing signal poles, as well as installing new ADA compliant curb ramps, on both the southwest corner and southeast corner (pork chop island) of the intersection. The existing bus stop and associated pad on the west side of South Bascom Avenue may need to be shifted slightly to the south so it would not conflict with the new crosswalk. Based on the City's sketch tool, adding these pedestrian network improvements to the intersection would lower the project VMT to 12.16 per employee (see Figure 8), which is below the threshold of 12.22 VMT per employee. Note that the improvements would require coordination with City of San Jose staff.

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 Envision San Jose 2040 General Plan, the project site is designated as *Neighborhood/ Community Commercial*. This designation supports a very broad range of commercial activity, including commercial uses that serve the communities in neighboring areas, such as neighborhood serving retail services and commercial/professional office development. Neighborhood/Community Commercial uses typically have a strong connection to and provide services and amenities for the surrounding community and should be designed to promote that connection with an appropriate urban form that supports walking, transit use and public interaction. General office uses, hospitals and private community gathering facilities are also allowed in this designation. Development in this land use designation would typically be one to four stories in height.

The project is consistent with the *Neighborhood/Community Commercial* designation, as the Assisted Living and Memory Care facility functions as a commercial use that provides variety of jobs that offer daily care services for residents. The project is also consistent with this land use designation because the proposed building would be 4 stories in height. Similar to other projects approved by the City of San Jose, this project is classified as a commercial facility because it provides a range of daily living and medical care services, including the provision of medicine management, daily health monitoring, supervision by an on-site nurse, as well as access to entertainment, beauty salon, fitness activities and dining facilities, including prepared meals, to all residents. Therefore, the project is consistent with the Commercial Lands Policy LU-4.1 since it would retain commercial lands and provide jobs and services.

The project site is located within the South Bascom Avenue (South) Urban Village boundary per the Envision San Jose 2040 General Plan. Urban Villages are designed to provide a vibrant and inviting mixed-use setting to attract pedestrians, bicyclists, and transit users of all ages and to promote job growth.

Figure 7
San Jose VMT Evaluation Tool Summary Report – No Mitigation

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: S. Bascom Senior Care Facility (93 Beds) Tool Version: 2/29/2019
Location: 2375 & 2395 S. Bascom Avenue, San Jose, CA Date: 1/22/2020
Parcel: 41225009 Parcel Type: Urban Low Transit

Proposed Parking Spaces Vehicles: 45 Bicycles: 4

LAND USE:

Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office:	24.8 KSF		
Retail:	0 KSF		
Industrial:	0 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) 9
- With Project Density (DU/Residential Acres in half-mile buffer) 9

Increase Development Diversity
- Existing Activity Mix Index 0.73
- With Project Activity Mix Index 0.74

Integrate Affordable and Below Market Rate
- Extremely Low Income BMR units . . . . . 0 %
- Very Low Income BMR units . . . . . 0 %
- Low Income BMR units . . . . . 0 %

Increase Employment Density
- Existing Density (Jobs/Commercial Acres in half-mile buffer) 36
- With Project Density (Jobs/Commercial Acres in half-mile buffer) 36

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

Tier 4 - TDM Programs

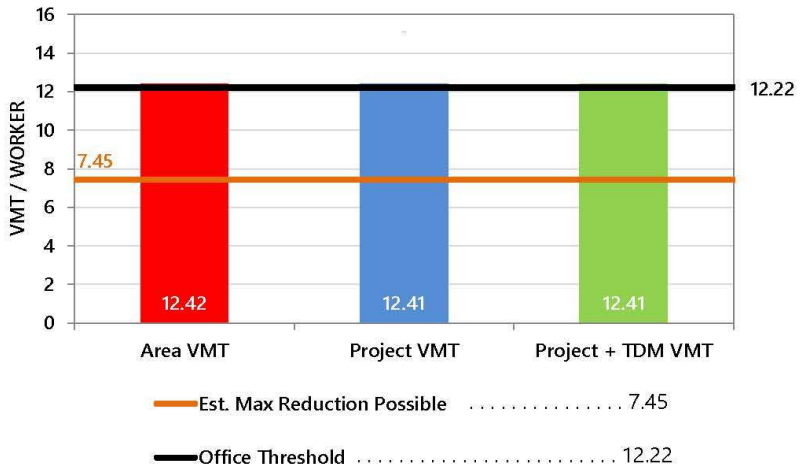
Page 1 of 2

Figure 7 (Continued)
San Jose VMT Evaluation Tool Summary Report – No Mitigation

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT above the City's threshold and per industrial worker VMT below the City's threshold.



Page 2 of 2

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

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name:	S. Bascom Senior Care Facility (93 Beds)	Tool Version:	2/29/2019
Location:	2375 & 2395 S. Bascom Avenue, San Jose, CA	Date:	1/22/2020
Parcel:	41225009 Parcel Type: Urban Low Transit		

Proposed Parking Spaces Vehicles: 45 Bicycles: 4

LAND USE:

Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office:	24.8 KSF		
Retail:	0 KSF		
Industrial:	0 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) 9
- With Project Density (DU/Residential Acres in half-mile buffer) 9

Increase Development Diversity
- Existing Activity Mix Index 0.73
- With Project Activity Mix Index 0.74

Integrate Affordable and Below Market Rate
- Extremely Low Income BMR units . . . . . 0 %
- Very Low Income BMR units . . . . . 0 %
- Low Income BMR units . . . . . 0 %

Increase Employment Density
- Existing Density (Jobs/Commercial Acres in half-mile buffer) 36
- With Project Density (Jobs/Commercial Acres in half-mile buffer) 36

Tier 2 - Multimodal Infrastructure

Pedestrian Network Improvements *(In Coordination with SJ)*
- Are pedestrian improvements provided beyond the development frontage? . . . . . Yes

Tier 3 - Parking

Tier 4 - TDM Programs

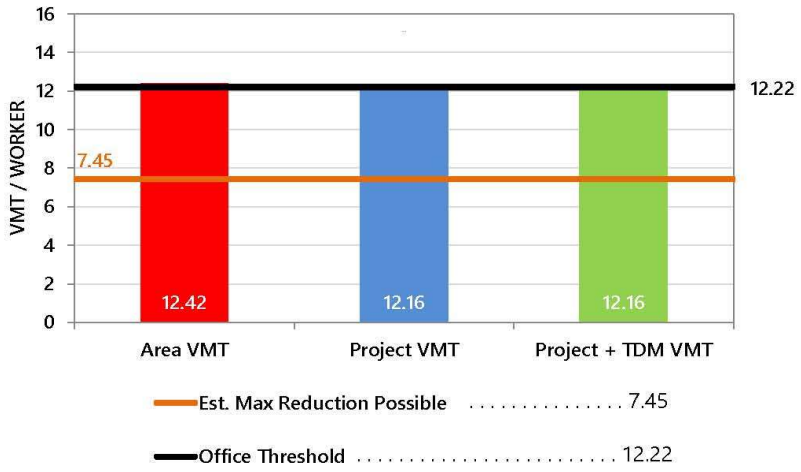
Page 1 of 2

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

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold. There are selected strategies that require coordination with the City of San Jose to implement.



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Since the project is consistent with the Envision San Jose 2040 General Plan goals and policies, conforms to the current land use designation so would not require a GPA, and is located in a Planned Growth Area (i.e., Urban Village), the project would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

4. Local Transportation Analysis

This chapter describes the local transportation analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis for existing, background and background plus project conditions, any adverse effects to intersection level of service caused by the project, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking supply. The transportation network under background and background plus project conditions would be the same as the existing transportation network.

Intersection Operations Analysis

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

Project Trip Estimates

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

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. This research is compiled in the *Trip Generation Manual, 10th 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 proposed senior assisted living units were estimated using the ITE trip rates for "Assisted Living" (ITE Land Use 254) located in a general urban/suburban setting.

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. Based on the 2018 San Jose guidelines, the project qualifies for a location-based

adjustment. The location-based adjustment reflects the project's vehicle mode share based on the "place type" in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the San Jose VMT Evaluation Tool ("sketch tool"). Based on the sketch tool, the project site is located within a designated Urban Low Transit place type. Therefore, the baseline project trips were adjusted to reflect an Urban Low Transit mode share.

Office developments within Urban Low Transit areas have a vehicle mode share of 91 percent (according to Table 6 of the City's *Transportation Analysis Handbook*). Thus, a 9 percent 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.

Existing Trip Credits

The project site is currently occupied by various commercial uses that would be removed as part of the proposed project. Trips that are generated by existing uses to be removed can be subtracted from the gross project trip generation estimates. The AM and PM peak hour trips generated by the existing uses were obtained from driveway counts conducted on October 2, 2019. Daily trips were calculated based on applying the relationship between the daily and PM peak hour ITE rates for "Shopping Center" (ITE Land Use 820). The trip credits were adjusted to account for the pass-by trip reduction percentages for Shopping Center contained in the ITE Trip Generation Handbook (Third Edition), as described below.

A pass-by trip reduction was applied to the net peak hour trip generation estimates for the existing commercial 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. Justification for applying the pass-by-trip reduction is founded on the observation that such retail traffic is not actually generated by the retail uses but is already part of the ambient traffic levels.

A PM peak hour pass-by trip reduction of 34 percent was applied to the existing commercial uses based on the ITE Trip Generation Handbook (Third Edition). No AM peak hour pass-by trip reduction is provided for Shopping Center. The daily pass-by trip reduction was calculated based on the average of the AM and PM pass-by reduction percentages, which equates to 17 percent.

Net Project Trips

After applying the ITE trip rates to the proposed project and applying the appropriate trip adjustments and credits, the project would be expected to generate 121 new daily vehicle trips, with 7 new trips occurring during the AM peak hour and 14 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 5 new inbound trips and 2 new outbound trip during the AM peak hour, and 5 new inbound trips and 9 new outbound trips during the PM peak hour (see Table 5).

Trip Distribution and Assignment

The trip distribution pattern for the senior assisted living facility was estimated based on existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM peak commute patterns, the locations of complementary land uses, and freeway access points (see Figure 9). The net peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. Note that since the project driveway would be restricted to right turns in and out due to the raised median island along Bascom Avenue, some U-turns would occur at the study intersections of South Bascom Avenue/Dry Creek Road and South Bascom Avenue/Surrey Lane (see Figure 9).

Table 5
Project Trip Generation Estimates

Land Use	Size	Daily Trip Rate	Daily Trips	AM Peak Hour Trip Rate	AM Peak Hour Trips In	AM Peak Hour Trips Out	AM Peak Hour Trips Total	PM Peak Hour Trip Rate	PM Peak Hour Trips In	PM Peak Hour Trips Out	PM Peak Hour Trips Total
Proposed Use											
Assisted Living[1]	93 beds	2.60	242	0.19	11	7	18	0.26	9	15	24
Location-Based Vehicle Mode Share (9%)[2]			*(22)*		*(1)*	*(1)*	*(2)*		*(1)*	*(1)*	*(2)*
Project Subtotal:			**220**		**10**	**6**	**16**		**8**	**14**	**22**
Existing Use											
General Retail[3]			119		5	4	9		5	7	12
Retail Pass-By External Trip Reduction[4]			*(20)*		*0*	*0*	*0*		*(2)*	*(2)*	*(4)*
Existing Retail Subtotal:			**99**		**5**	**4**	**9**		**3**	**5**	**8**
Net Project Trips:			**121**		**5**	**2**	**7**		**5**	**9**	**14**

Source: ITE Trip Generation Manual, 10th Edition, 2017.
1. Average trip rates (in trips per bed) for "Assisted Living" (ITE Land Use 254) are used.
2. A 9% reduction was applied based on the location-based vehicle mode share percentage outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for office development in an Urban Low-Transit area.
3. The AM and PM peak hour trips generated by the existing commercial uses to be removed were obtained from driveway counts conducted on October 2, 2019. Daily trips were calculated based on applying the relationship between the daily and PM peak hour ITE rates for "Shopping Center" (ITE Land Use 820).
4. The PM peak hour pass-by trip reduction percentage (34% for Shopping Center) is based on the ITE Trip Generation Handbook (Third Edition). There is no AM peak hour pass-by trip reduction. The daily pass-by trip reduction (17%) is calculated based on the average of the AM and PM pass-by trip reduction percentages.

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing AM and PM peak hour traffic volumes were obtained from new manual turning-movement counts conducted on October 8, 2019 (see Appendix A). The new count data have been reviewed and approved by City of San Jose Department of Transportation staff for use in this traffic study.

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 typically is provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). However, ATI is not available for the study intersections because there are no approved projects near the site. Thus, background conditions are identical to existing conditions.

Background Plus Project Traffic Volumes

Project trips are added to background traffic volumes to obtain background plus project traffic volumes.

The Existing and Existing/Background Plus Project peak hour intersection volumes are shown on Figure 10.

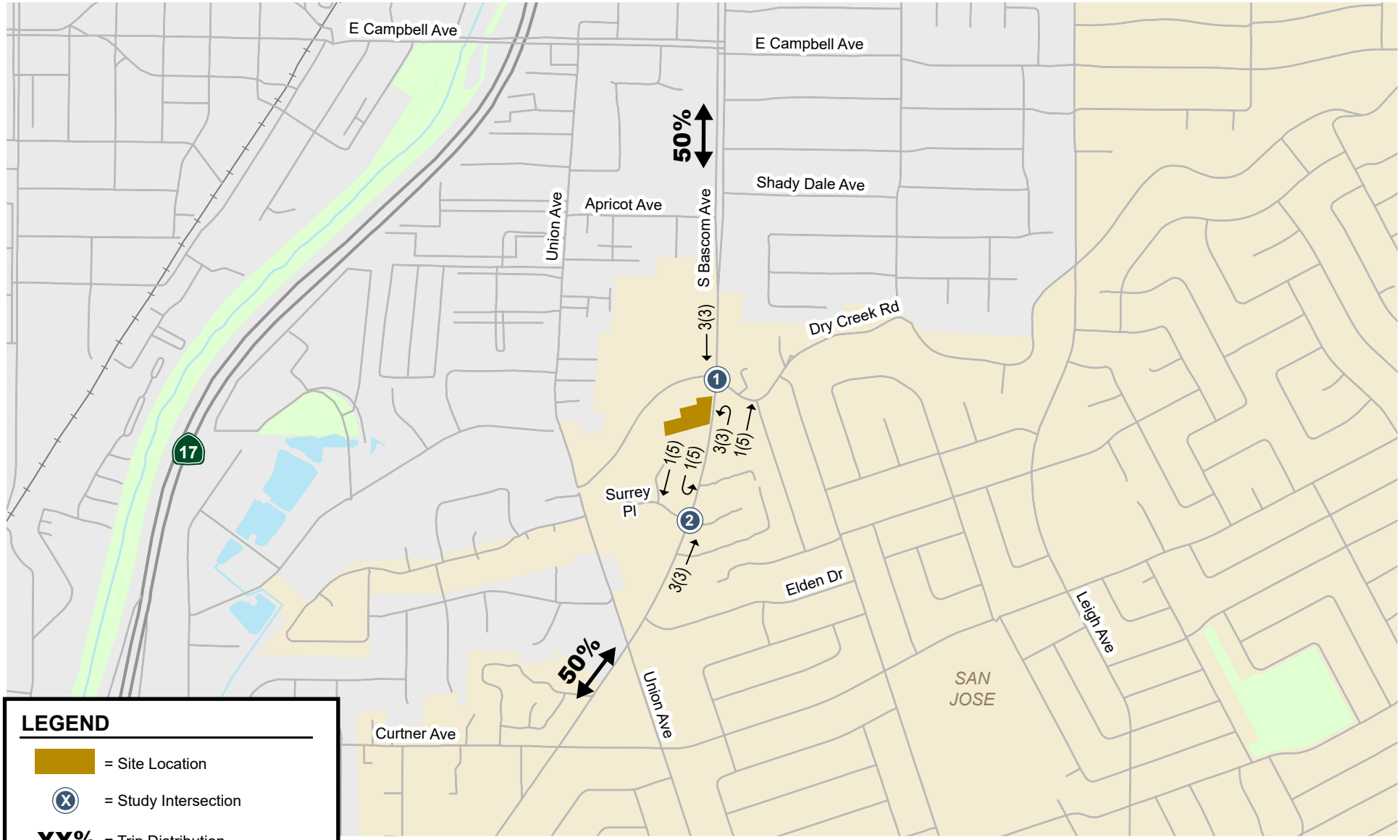


Figure 9
Project Trip Distribution and Net Trip Assignment

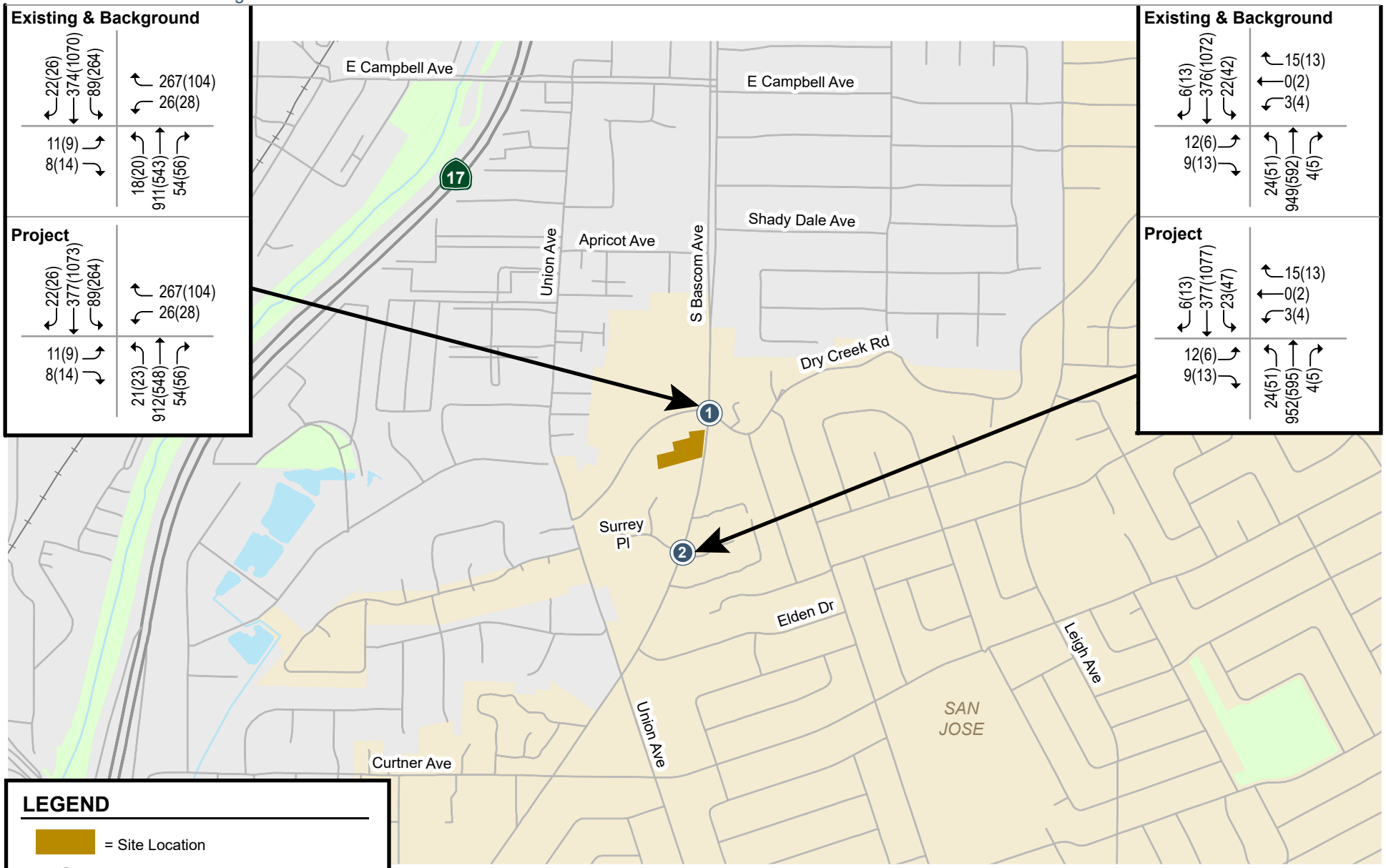


Figure 10
Existing, Background and Project Traffic Volumes

Intersection Traffic Operations

Signalized Intersection Analysis

Intersection levels of service were evaluated against the standards of the City of San Jose. The results of the analysis show that the signalized study intersection of South Bascom Avenue and Dry Creek Road is currently operating at an acceptable level of service during the AM and PM peak hours of traffic and would continue to operate acceptably under background and background plus project conditions (see Table 6).

Table 6
Intersection Level of Service Summary

			Existing		Background		Background + Project			
#	Signalized Intersection	Peak Hour	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	S. Bascom Av & Dry Creek Rd	AM	28.0	C	28.0	C	28.0	C	0.0	0.000
		PM	18.0	B	18.0	B	18.0	B	0.1	0.003

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

Unsignalized Intersection Analysis

The traffic study evaluated the unsignalized intersection of South Bascom Avenue and Surrey Place. The City of San Jose has not established a level of service standard for unsignalized intersections. Therefore, the unsignalized study intersection was evaluated for potential operational issues but not level of service. Traffic conditions at the unsignalized study intersection was also assessed to determine whether the unsignalized intersection would meet the peak-hour volume signal warrant (Warrant #3) described in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD).

The results of the peak-hour signal warrant checks indicate that the AM and PM peak hour volumes at the unsignalized study intersection would not warrant signalization under existing, background, or background plus project conditions. The peak-hour signal warrant sheets are contained in Appendix C.

Intersection Queuing and U-Turn Analysis

The operations analysis is based on vehicle queuing for high-demand turn movements at intersections. Based on the project trip generation and trip distribution pattern, the following left-turn/U-Turn movements were examined as part of the queuing and storage analysis for this project:

- Northbound left-turn/U-Turn movement at South Bascom Avenue and Dry Creek Road
- Southbound left-turn/U-Turn movement at South Bascom Avenue and Surrey Place

Field observations show that these two left-turn pockets provide adequate storage to accommodate the 95th percentile vehicles queues that currently occur. The existing 95th percentile vehicle queue lengths shown in Table 7 were confirmed in the field. The project would add 3 new AM peak hour and 3 new PM peak hour northbound U-turns, and 1 new AM peak hour and 5 new PM peak hour southbound U-Turns. The queuing analysis indicates that the 95th percentile vehicle queues for these two left-turn/U-Turn movements would not increase as a result of the project (see Table 7). Therefore, the project would not create any queuing issues associated with these left-turn/U-Turn movements.

Table 7
Intersection Queuing Analysis

Analysis Scenario	South Bascom Avenue & Dry Creek Road NBL AM	South Bascom Avenue & Dry Creek Road NBL PM	South Bascom Avenue & Surrey Place SBL AM	South Bascom Avenue & Surrey Place SBL PM
Existing				
Cycle/Delay (sec)[1]	110	110	10.1	8.8
Volume (vphpl)	18	20	22	42
95th %. Queue (veh/ln.)[2]	2	2	1	1
95th %. Queue (ft./ln)	50	50	25	25
Storage (ft./ ln.)	175	175	150	150
Adequate (Y/N)	Y	Y	Y	Y
Background				
Cycle/Delay (sec)[1]	110	110	10.1	8.8
Volume (vphpl)	18	20	22	42
95th %. Queue (veh/ln.)[2]	2	2	1	1
95th %. Queue (ft./ln)	50	50	25	25
Storage (ft./ ln.)	175	175	150	150
Adequate (Y/N)	Y	Y	Y	Y
Background Plus Project				
Cycle/Delay (sec)[1]	110	110	10.1	8.8
Volume (vphpl)	21	23	23	47
95th %. Queue (veh/ln.)[2]	2	2	1	1
95th %. Queue (ft./ln)	50	50	25	25
Storage (ft./ ln.)	175	175	150	150
Adequate (Y/N)	Y	Y	Y	Y

Notes:
NBL = northbound left turn movement; SBL = southbound left turn movement
[1] Queue calculations based on cycle length for signalized intersections and average delay for unsignalized intersections.
[2] Assumes 25 feet per vehicle queued.

Vehicular Site Access and On-Site Circulation

The site access and circulation evaluations are based on the site plan prepared by Advocacy Development Partners (see Figure 2 in Chapter 1 and Figure 11 in this chapter) and submitted to the City of San Jose as part of the December 23, 2019 Conditional Use Permit submittal (File No. CP19-021). Site access was evaluated to determine the adequacy of the site's driveway with regard to the following: traffic volume, vehicle queuing, geometric design, and stopping sight distance. On-site vehicular circulation and parking layout were reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Project Driveway

As proposed, the project would remove three existing driveways on South Bascom Avenue and construct one new two-way driveway. The project driveway would provide access to a basement parking level containing 45 parking stalls. The driveway would be restricted to right-turn in/out movements only due to the raised median island along South Bascom Avenue.

According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the standard width for a two-way driveway that serves a multi-family residential development is 26 feet

wide. This provides adequate width for vehicular ingress and egress and provides a reasonably short crossing distance for pedestrians. The project driveway is shown to be 26 feet wide, which would meet the City's standard.

The project-generated trips that are estimated to occur at the project driveway are 10 inbound trips and 6 outbound trips during the AM peak hour, and 8 inbound trips and 14 outbound trips during the PM peak hour. All vehicles would be turning right in and out of the project driveway due to the raised median island along South Bascom Avenue. Accordingly, U-turns would occur at the study intersections of South Bascom Avenue/Dry Creek Road and South Bascom Avenue/Surrey Lane. Due to the relatively low number of project-generated trips, operational issues related to vehicle queueing and/or vehicle delay are not expected to occur at the project driveway.

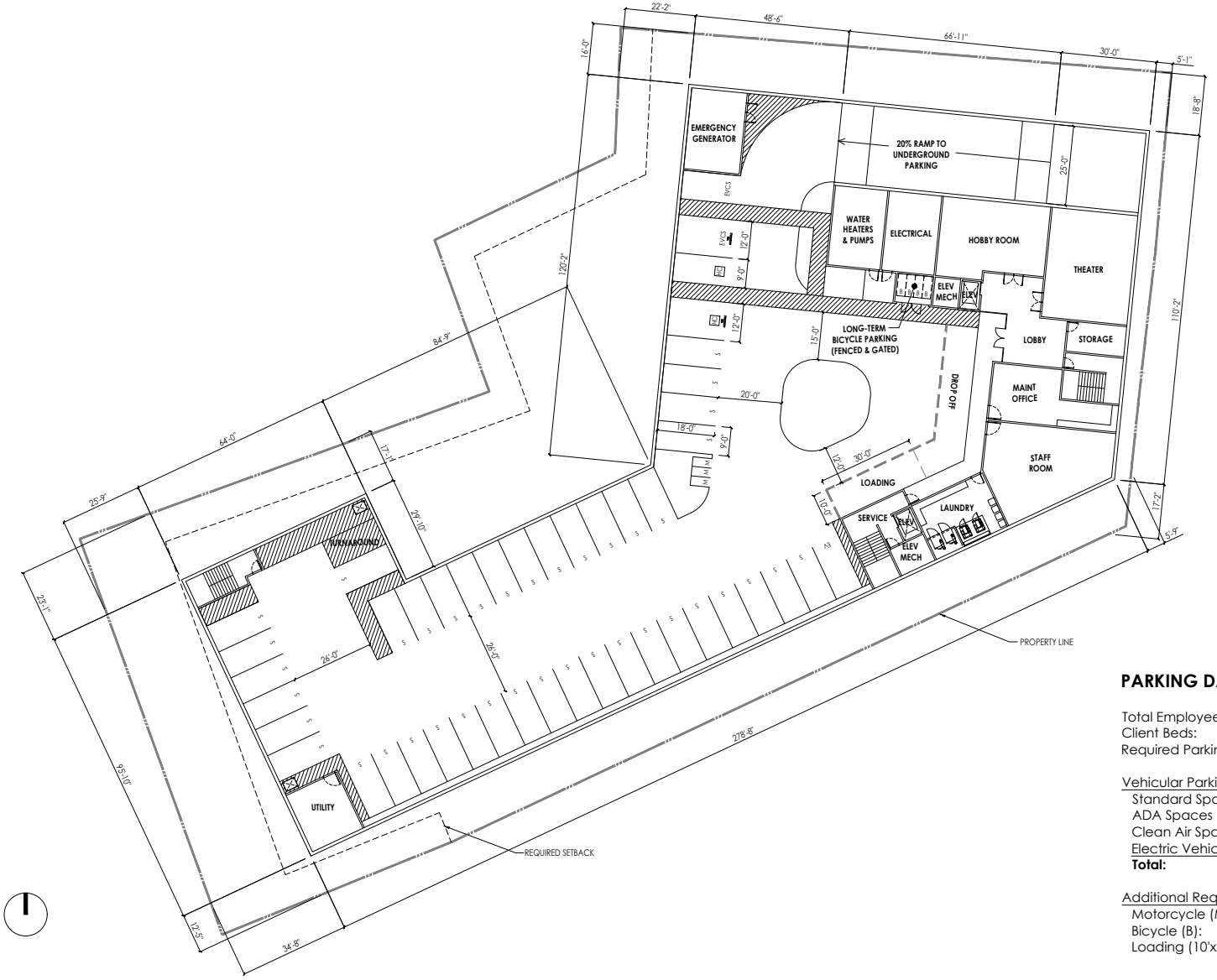
The City typically requires developments to provide adequate on-site stacking space for two inbound vehicles (approximately 40 to 50 feet) between the sidewalk and any entry gates or on-site parking spaces. This prevents vehicles from queuing onto the sidewalk and/or street. The site plan shows 30 feet of vehicle stacking space would be provided between the sidewalk and the security gate. The project applicant should work with City staff to determine if the amount of inbound stacking space would be adequate to serve the small number of project-generated inbound trips. It is important to note that since the garage ramp begins almost immediately after passing the security gate, the gate could not be relocated further into the garage to provide additional inbound vehicle stacking space. An option is to keep the security gate open during the day. Ultimately, the location of the gate should not present a problem if the gate remains open during the time periods of the day when most project-generated inbound vehicle trips are likely to occur.

Sight Distance at the 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 South Bascom Avenue. Any landscaping and signage should be located 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 South Bascom Avenue, 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 South Bascom Avenue in order to stop and avoid a collision. The site plan shows one street tree would be added along the project frontage on South Bascom Avenue north of the project driveway. Street trees have a high canopy and would not obstruct the view of drivers exiting the project driveway. Therefore, it can be concluded that the project driveway would meet the Caltrans stopping sight distance standard.

On-Site Vehicular Circulation and Parking Garage Layout

On-site vehicular circulation was reviewed for the project in accordance with generally accepted traffic engineering standards and City of San Jose design guidelines. Access to the project site would be provided via one right-turn only two-way driveway on South Bascom Avenue. A 25-foot wide internal ramp would provide access to the below-grade parking level (see Figure 11). The ramp narrows to 20 feet wide after the 90-degree turn at the bottom of the ramp. This narrow segment is the start of the main drive aisle on the below-grade parking level and is about 30 feet in length. The drive aisle widens to 26 feet where the majority of the 90-degree parking stalls are located. A one-way drop-off lane would also be provided within the parking garage and varies in width between 12 feet and 20 feet.



0' 8' 16' 32'

SCALE 1/16" = 1'-0"

PARKING DATA

Total Employees (peak shift):	27
Client Beds:	93
Required Parking Spaces:	40

Vehicular Parking

Standard Spaces(S) - 9'x18':	40
ADA Spaces (HC):	02
Clean Air Spaces (EV) - 9'x18':	01
Electric Vehicle Charging Station (EVCS):	02
Total:	**45**

Additional Requirements

Motorcycle (M) - 6'x4':	03
Bicycle (B):	04
Loading (10'x30'x10'):	01

Figure 11
Basement Level Garage Plan

HEXAGON

NORTH
Not to Scale

Typical engineering standards require garage ramps to have no greater than a 20 percent grade with transition grades of 10 percent or less. The project site plan shows an acceptable ramp slope of 20 percent; however, transition grades are not shown on the plan. The project should provide transition grades of 10 percent or less at both the top and bottom of the internal garage ramp. In addition, a convex mirror should be installed at the bottom of the garage ramp to help with this blind turn.

The internal parking garage ramp was evaluated for vehicle access by the method of turning-movement templates. Analysis using the appropriate Passenger Car turning templates shows that smaller passenger vehicles (turning template "Pm") and larger passenger vehicles (turning template "P") could adequately negotiate the internal ramp and circulate through the parking garage, including the one-way drop-off lane. However, the narrow 20-foot wide segment of drive aisle would be inadequate to accommodate two-way traffic.

The City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. This allows sufficient room for vehicles to back out of the parking stalls. According to the site plan, a 26-foot wide drive aisle would provide access to 37 of the 45 90-degree parking stalls. Although the garage has a long dead-end aisle, a turn-around space is shown at the end. The 8 remaining 90-degree parking stalls located near the garage ramp would be served by a 20-foot wide drive aisle. As a result, backing out of these 8 stalls would be difficult, particularly the three stalls (two EVCS/Clean Air stalls and one ADA stall) located at the base of the ramp and along the narrow 20-foot segment of drive aisle (see Figure 12). Due to the narrow drive aisle width, drivers may have difficulty avoiding the pedestrian walkway when backing out of these three stalls. Pulling into these parking stalls would also be difficult due to the narrow drive aisle width, particularly for drivers of larger vehicles. Hexagon recommends widening the 20-foot wide segment of drive aisle to at least 24 feet.

Parking Stall Dimensions

All the standard parking stalls are shown to be 9 feet wide by 18 feet deep. Based on the City of San Jose off-street parking design standards for full-size car spaces, the proposed parking stall dimensions would be adequate to serve the project. One ADA stall measures 9 feet wide by 18 feet long and the other ADA stall measures 12 feet wide by 18 feet long. The stall dimensions would meet ADA standards. A 5-foot access aisle (for van accessibility) separates the two ADA stalls.

Passenger Loading

An approximately 40-foot long passenger drop-off/pick-up zone would be provided within the below-grade parking garage adjacent to the lobby and elevators. The passenger loading area could be adequately accessed by passenger vehicles. However, taxi services, including Uber and Lyft, would likely not have access to the garage. For this reason, a passenger loading zone along the project frontage on South Bascom Avenue near the main entry would be beneficial and is recommended.

Truck Access and Circulation

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

Residential Move-In and General Loading Operations

The site plan shows a designated 30-foot loading zone within the below-grade parking garage for residential move-in and general loading purposes. The loading zone is situated adjacent to the passenger loading zone and near the lobby and elevators. The site plan does not indicate the amount of vertical clearance that would be provided at the project driveway or within the parking garage. However, even if an adequate amount of vertical clearance would be provided, large moving trucks, such as the SU-30 truck type, would have difficulty accessing the below-grade loading zone because of

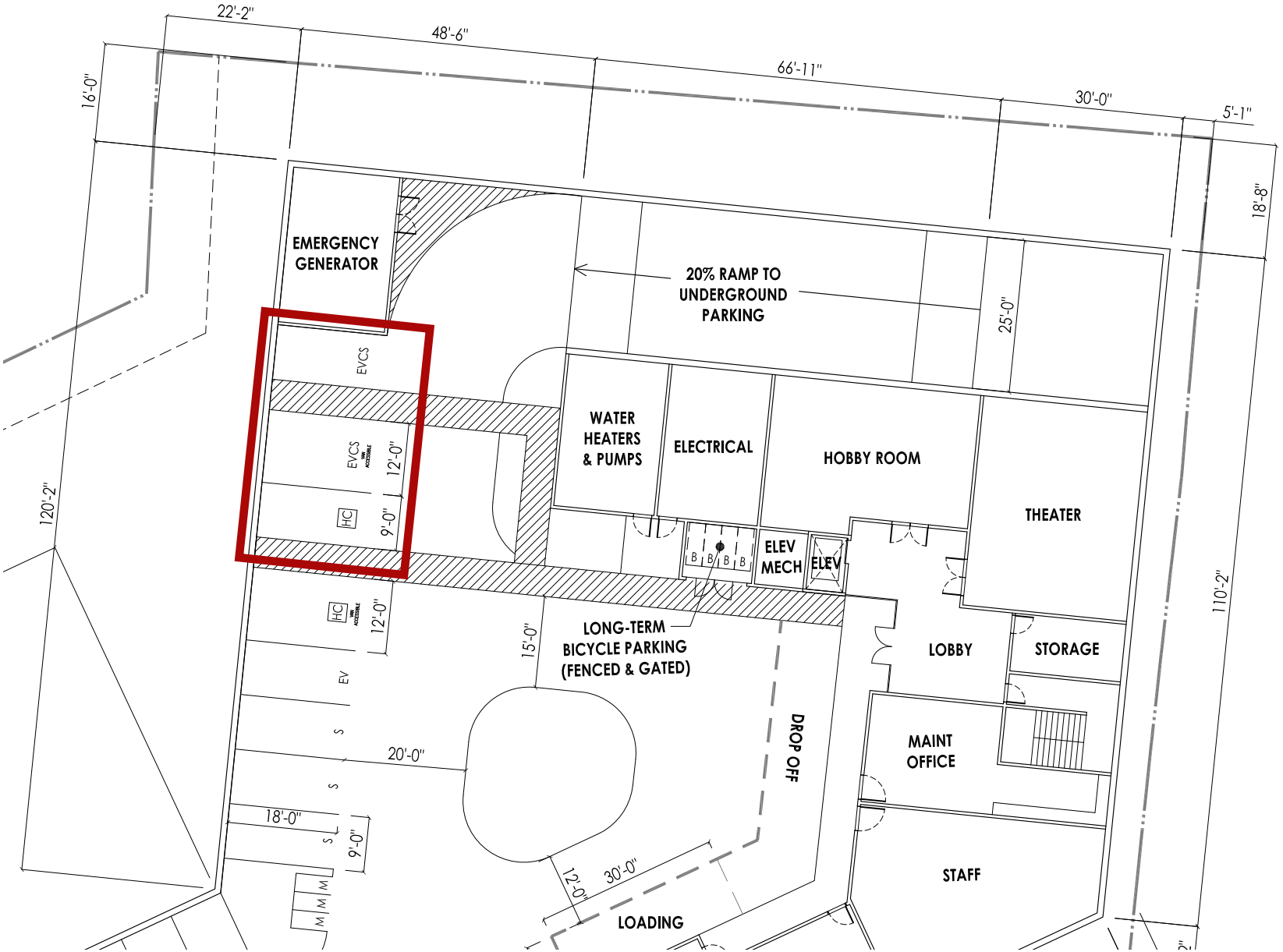


Figure 12
Problematic Parking Stalls

NORTH
Not to Scale

the tight turns within the garage. Thus, the loading zone would only be useful to small moving trucks and moving vans. The project should discuss with the City the possibility of adding an on-street timed loading zone.

According to the VTA's Bascom Corridor Complete Streets Study, short-term improvements for the South Neighborhood segment of South Bascom Avenue (which includes the project site) include removing on-street parking and adding protected bike lanes while maintaining all six vehicle travel lanes. These short-term improvements would make it impossible to add an on-street timed loading zone along the project frontage. However, the long-term improvements that are planned for this segment of South Bascom Avenue include removing one vehicle travel lane in each direction (i.e., reducing South Bascom Avenue from six lanes to four lanes) and adding a parking lane in each direction, thus making it feasible to add a timed loading zone to serve the project.

Garbage Collection

Garbage truck access to the on-site trash room would not be provided. Therefore, it is assumed that garbage collection activities for the project would occur within the public right-of-way on South Bascom Avenue. Garbage collection activities would involve rolling the trash bins out of the trash enclosure, positioning the bins in a trash staging area on South Bascom Avenue, collecting the waste material, and returning the bins to the enclosure. The garbage bins should be returned to the trash enclosure immediately after garbage pick-up.

Emergency Vehicle Access

The City of San Jose Fire Department requires that all portions of the buildings be within 150 feet of a fire department access road and requires a minimum of 6 feet clearance from the property line along all sides of the buildings. According to the project site plan, the project would meet the 6-foot clearance requirement around the entire building. The 150-foot fire access requirement would also be satisfied so long as the parking lot within the adjacent property to the south could be utilized by 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. 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.

Pedestrian, Bicycle, and Transit Facilities

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.

South Bascom Avenue is a Grand Boulevard. As defined by the Envision San Jose 2040 General Plan, Grand Boulevards are identified to serve as major transportation corridors for primary routes for VTA light-rail, bus rapid transit, standard or community busses, and other public transit vehicles. Although Grand Boulevards accommodate all modes of travel, the primary priority is given to public transit. As a project along a Grand Boulevard, this project is required to meet the standards set forth by the Envision San Jose 2040 General Plan for such locations, including providing a 15-foot sidewalk width.

Pedestrian Access and Circulation

Pedestrian facilities consist of sidewalks along the streets in the immediate vicinity of the project site. The existing sidewalk on South Bascom Avenue would be reconstructed along the project frontage. The new sidewalk would be 15 feet wide. In addition, the project would construct a continuous paved pedestrian path around the perimeter of the building that would connect to the new sidewalk on South Bascom Avenue. The sidewalk and paths would provide pedestrian access to the residential lobby and common areas, including the elevators, as well as access to other resident serving support spaces such as a Hobby Room and Theater. The pedestrian path would also provide residents and employees of the assisted living and memory care community with access to outdoor living spaces, including courtyards and a garden.

The continuous network of sidewalks and crosswalks in the study area exhibits good connectivity and would provide residents with safe routes to transit stops and other points of interest (mostly commercial uses) in the project area. Note that there are no parks located within walking distance (approximately ½ mile) of the project site. Marked crosswalks are provided with pedestrian signal heads across three of the four legs of the signalized intersection of South Bascom Avenue and Dry Creek Road. This intersection has ADA compliant curb ramps with truncated domes on all four corners. 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.

New Crosswalk on the 4th Leg of South Bascom Avenue/Dry Creek Road

As described in Chapter 3, it is recommended that the project install a crosswalk on the south leg of the South Bascom Avenue and Dry Creek Road intersection to mitigate the significant transportation impact on VMT. This pedestrian network improvement is feasible and would require installing pedestrian signal heads and push buttons on the existing signal poles, as well as installing new ADA compliant curb ramps, on both the southwest corner and southeast corner (pork chop island) of the intersection. The existing bus stop and associated pad on the west side of South Bascom Avenue may need to be shifted slightly to the south so it would not conflict with the new crosswalk. The improvements would require coordination with City of San Jose staff.

Bicycle Access and Circulation

The project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. The site plan shows 4 long-term bicycle parking spaces in a bike room located in the below-grade parking level. The bike storage room would be accessed using the elevator located in the building lobby. Providing adequate and convenient on-site bike parking would help to create a bicycle-friendly environment and encourage bicycling by employees of the project.

The VTA's Bascom Corridor Complete Streets Study includes some bicycle network improvements for the South Neighborhood segment of South Bascom Avenue, including adding protected bike lanes, reducing on-street parking, and making signal timing improvements that would benefit bicyclists. In addition, this section of South Bascom Avenue is on the City's 2022 Pavement Maintenance schedule. These planned improvements would enhance bicycle access to the project site and improve bicycle mobility and safety along the South Bascom Avenue corridor. Note that while the number of vehicle

travel lanes will not be reduced in the near-term, the long-range plan is to reduce the number of travel lanes along South Bascom Avenue from six lanes to four lanes in order to create a more bicycle- and pedestrian-friendly environment.

The pavement maintenance that is scheduled for the segment of South Bascom Avenue between Camden Avenue and Cedar Glen in 2022 likely won't affect project site access or circulation since the planned pavement improvements would likely be completed prior to project completion. Should the project be constructed and occupied prior to completion of the pavement improvements, loading operations and/or parking along the project frontage would be temporarily affected.

Transit Facilities

The VTA's local bus routes 26, 61 and 62 operate along South Bascom Avenue and stop frequently just 150 feet north of the project site. Buses can carry bicycles.

Due to the project site's proximity to a major bus stop, it is reasonable to assume that some residents and employees of the senior assisted living facility would utilize the bus service. It is estimated that the small increase in transit demand generated by the proposed project could be accommodated by the current available ridership capacity of the local bus services in the study area.

Parking

Parking provided on the site was evaluated based on the City of San Jose parking standards (*San Jose Municipal Code Chapter 20.90, Tables 20-190*). The Residential Care or Service Facility land use was used to calculate the project parking requirement. The City's off-street vehicle parking, motorcycle parking, and bicycle parking requirements for the proposed assisted living facility are evaluated below.

Vehicle Parking Requirement

- 1 vehicle parking space per first 6 client beds, plus 1 additional space for up to 4 client beds above the first 6, plus 1 additional space for each additional 4 client beds, plus 1 space for each employee or staff member.

The project would include a total of 93 beds and 27 staff members (peak shift). Based on the City's parking code, the project is required to provide a total of 50 vehicle parking spaces, including 23 spaces for assisted living residents and 27 spaces for assisted living staff. However, since the project is located in an Urban Village, the project is allowed a 20 percent reduction in parking. Accordingly, a total of 40 vehicle parking spaces are required to serve the project.

The site plan shows a total of 45 vehicle parking spaces within the underground parking garage, which would exceed the City's reduced vehicle parking requirement by 5 parking spaces.

Motorcycle and Bicycle Parking

Due to the nature of the assisted living facility, it is anticipated that motorcycle parking would potentially be used by the employees only. The City requires one motorcycle parking space for every 20 code-required auto parking spaces for commercial uses. Based on a reduced vehicle parking requirement of 27 parking spaces for staff members and applying the City's commercial motorcycle parking rate, the project should provide 2 motorcycle parking spaces. The site plan shows 3 motorcycle parking spaces on the below-grade parking level.

The City requires one bicycle parking space for every 10 full-time employees of the assisted living facility. This equates to a parking requirement of 3 bicycle parking spaces. The site plan shows 4 long-term bicycle parking spaces within a secured bike room on the below-grade parking level.

5. Conclusions

This report presents the results of the Transportation Analysis (TA) conducted for a proposed senior assisted living development at 2375 and 2395 Bascom Avenue in San Jose, California. The project site is located within the South Bascom Avenue (south) Urban Village boundary per the Envision San Jose 2040 General Plan. As proposed, the project would demolish the existing commercial uses on the site and construct a 93-bed senior assisted living development. Access to the site would be provided via one right-in/right-out driveway on South Bascom Avenue. This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed assisted living development.

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

CEQA Transportation Analysis

The VMT generated by the project (12.41 VMT per employee) would exceed the threshold of 12.22 VMT per employee; therefore, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. 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.

Mitigation: Implement on- and off-site pedestrian improvements. Improving pedestrian connections encourages people to walk instead of drive and reduces VMT. In addition to the planned sidewalk improvements along the project frontage (15-foot sidewalk), it is recommended that the project install a crosswalk via a signal modification on the south leg of the South Bascom Avenue and Dry Creek Road intersection to mitigate the significant transportation impact on VMT. This pedestrian network improvement is feasible and would require installing pedestrian signal heads and push buttons on the existing signal poles, as well as installing new ADA compliant curb ramps, on both the southwest corner and southeast corner (pork chop island) of the intersection. The existing bus stop and associated pad on the west side of South Bascom Avenue may need to be shifted slightly to the south so it would not conflict with the new crosswalk. Based on the City's sketch tool, adding these pedestrian network

improvements to the intersection would lower the project VMT to 12.16 per employee, which is below the threshold of 12.22 VMT per employee. Note that the improvements would require coordination with City of San Jose staff.

Local Transportation Analysis

Project Trip Generation

After applying the ITE *Trip Generation Manual* rates to the proposed project and applying the appropriate trip adjustments and credits, the project would be expected to generate 121 new daily vehicle trips, with 7 new trips occurring during the AM peak hour and 14 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 5 new inbound trips and 2 new outbound trip during the AM peak hour, and 5 new inbound trips and 9 new outbound trips during the PM peak hour.

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, the signalized study intersection would not be adversely affected by the project.

Other Transportation Items

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

- Keep the garage security gate open during the time periods of the day when most project-generated inbound vehicle trips are likely to occur.
- Provide transition grades of 10 percent or less at both the top and bottom of the internal garage ramp, and install a convex mirror at the bottom of the garage ramp to help with the blind turn.
- Widen the 20-foot wide segment of drive aisle within the below-grade parking level to at least 24 feet wide.
- Provide one timed loading zone along the project frontage on South Bascom Avenue to serve passenger loading, residential move in/out, and general deliveries. The inclusion of a timed loading zone would be determined in coordination with the public improvement plans.
- Construct a 15-foot wide sidewalk along the project frontage on South Bascom Avenue (Grand Boulevard) as required by the Envision San Jose 2040 General Plan. This improvement is being proposed by the project and is shown on the site plan.

S. Bascom Avenue Senior Assisted Living Facility TA

Technical Appendices

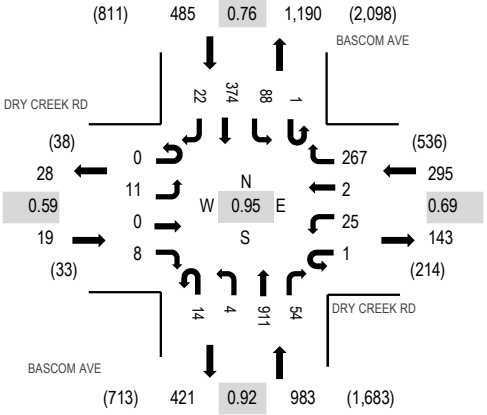
January 24, 2020

Appendix A
Traffic Counts

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

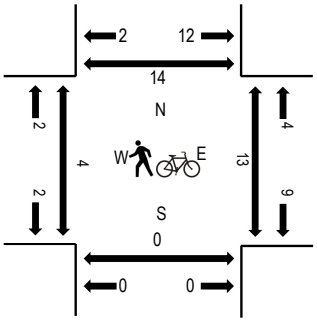
Location: 1 BASCOM AVE & DRY CREEK RD AM
Date: Tuesday, October 8, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DRY CREEK RD Eastbound				DRY CREEK RD Westbound				BASCOM AVE Northbound				BASCOM AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	6	0	0	0	0	0	37	4	0	120	5	0	10	40	4	226	1,281	0	2	0	0
7:15 AM	0	3	0	0	0	4	0	54	1	0	151	6	0	10	62	1	292	1,523	2	0	0	0
7:30 AM	0	2	0	2	0	6	0	62	3	0	188	6	1	8	89	2	369	1,702	0	2	0	0
7:45 AM	0	1	0	0	0	2	0	76	0	1	204	11	3	15	79	2	394	1,754	2	1	0	0
8:00 AM	0	3	0	3	0	1	1	71	3	2	207	18	0	48	107	4	468	1,782	0	7	0	10
8:15 AM	0	4	0	4	0	15	1	108	3	0	214	15	1	20	79	7	471		2	0	0	1
8:30 AM	0	2	0	1	1	8	0	41	2	0	254	10	0	13	88	1	421		0	3	0	1
8:45 AM	0	2	0	0	0	1	0	47	6	2	236	11	0	7	100	10	422		0	2	0	2

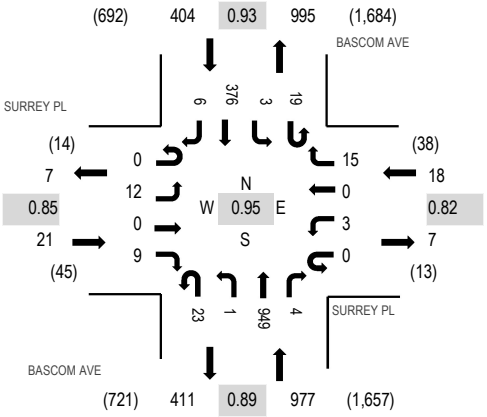
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	3
Lights	0	10	0	8	1	24	2	266	13	4	897	54	1	85	360	21	1,746
Mediums	0	1	0	0	0	1	0	0	1	0	12	0	0	2	14	1	32
Total	0	11	0	8	1	25	2	267	14	4	911	54	1	88	374	22	1,782

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

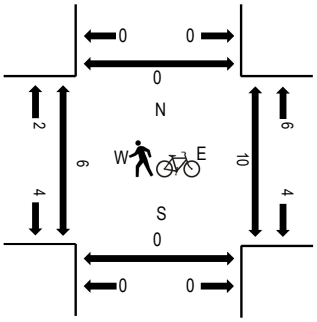
Location: 2 BASCOM AVE & SURREY PL AM
Date: Tuesday, October 8, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SURREY PL Eastbound				SURREY PL Westbound				BASCOM AVE Northbound				BASCOM AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	1	0	0	0	4	6	1	126	0	2	0	39	2	181	1,012	0	0	0	1
7:15 AM	0	5	0	0	0	1	0	6	5	0	141	1	0	2	62	2	225	1,191	1	1	0	0
7:30 AM	0	3	0	7	0	1	0	4	6	1	185	1	6	0	86	0	300	1,298	1	1	0	0
7:45 AM	0	5	0	3	0	1	0	3	8	1	197	1	2	1	84	0	306	1,371	1	0	0	1
8:00 AM	0	2	0	6	0	0	0	7	4	0	229	3	3	0	105	1	360	1,420	0	1	0	0
8:15 AM	0	5	0	3	0	1	0	1	9	1	220	0	6	1	84	1	332		3	1	0	0
8:30 AM	0	1	0	0	0	1	0	3	5	0	267	1	4	2	85	4	373		1	3	0	0
8:45 AM	0	4	0	0	0	1	0	4	5	0	233	0	6	0	102	0	355		0	5	0	0

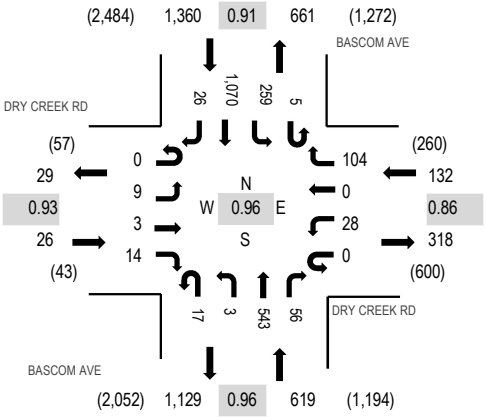
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	12	0	9	0	3	0	15	22	1	933	4	18	3	363	6	1,389
Mediums	0	0	0	0	0	0	0	0	1	0	15	0	1	0	13	0	30
Total	0	12	0	9	0	3	0	15	23	1	949	4	19	3	376	6	1,420

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

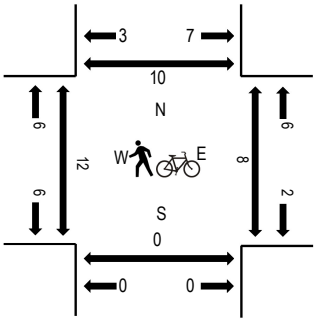
Location: 1 BASCOM AVE & DRY CREEK RD PM
Date: Tuesday, October 8, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DRY CREEK RD Eastbound				DRY CREEK RD Westbound				BASCOM AVE Northbound				BASCOM AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	0	0	0	7	1	18	5	1	118	11	1	38	183	4	389	1,844	2	0	0	0
4:15 PM	0	4	0	6	0	5	0	22	3	0	119	12	0	61	232	5	469	1,966	0	2	2	1
4:30 PM	0	1	0	1	0	4	1	29	3	0	122	21	0	64	237	9	492	2,056	2	3	0	5
4:45 PM	0	1	1	1	0	7	0	34	3	1	139	17	1	57	226	6	494	2,096	1	1	0	1
5:00 PM	0	2	2	3	0	3	0	26	3	0	140	22	1	50	251	8	511	2,137	3	2	0	2
5:15 PM	0	1	0	5	0	9	0	28	3	0	128	13	1	79	289	3	559		2	1	0	4
5:30 PM	0	2	1	3	0	9	0	17	6	2	148	9	1	68	262	4	532		2	2	0	1
5:45 PM	0	4	0	3	0	7	0	33	5	1	127	12	2	62	268	11	535		2	2	0	1

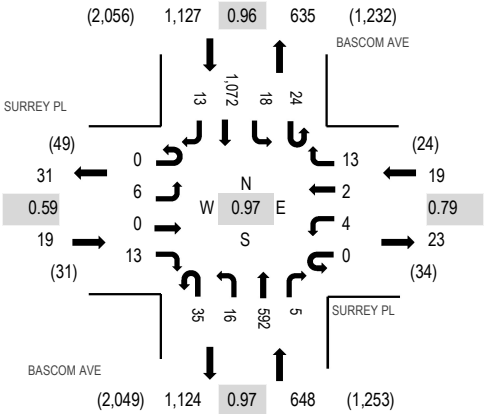
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	1	0	0	1	0	0	3	2	0	7
Lights	0	9	3	14	0	28	0	103	17	3	536	56	5	256	1,058	26	2,114
Mediums	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	16
Total	0	9	3	14	0	28	0	104	17	3	543	56	5	259	1,070	26	2,137

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

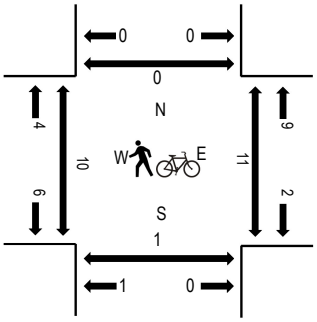
Location: 2 BASCOM AVE & SURREY PL PM
Date: Tuesday, October 8, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SURREY PL Eastbound				SURREY PL Westbound				BASCOM AVE Northbound				BASCOM AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	1	0	0	0	1	9	0	131	3	7	4	182	4	342	1,551	1	3	1	0
4:15 PM	0	1	0	0	0	1	0	2	5	2	132	0	7	2	235	1	388	1,657	0	3	0	0
4:30 PM	0	2	0	5	0	0	0	1	10	2	144	0	8	1	230	3	406	1,724	1	0	0	0
4:45 PM	0	0	0	3	0	0	0	0	10	1	155	1	6	0	234	5	415	1,785	0	0	0	0
5:00 PM	0	2	0	3	0	2	0	4	9	2	157	2	5	8	252	2	448	1,813	3	0	0	0
5:15 PM	0	0	0	3	0	1	2	2	11	4	137	1	8	3	278	5	455		0	3	0	0
5:30 PM	0	4	0	4	0	0	0	3	11	6	151	1	5	2	274	6	467		4	2	1	0
5:45 PM	0	0	0	3	0	1	0	4	4	4	147	1	6	5	268	0	443		0	5	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Lights	0	6	0	13	0	4	2	13	35	16	587	5	24	18	1,061	12	1,796
Mediums	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	1	15
Total	0	6	0	13	0	4	2	13	35	16	592	5	24	18	1,072	13	1,813

AM Peak-Hour Volume Driveway Count- 19BJ10

AUTO CENSUS

Traffic Monitoring and Analysis

5973 Larkstone Loop
San Jose, CA 95123

Date: October 2nd, 2019
Counters: Patti
Intersection Name: Bascom and Dry Creek
Weather: Fair

	DWY 1		DWY 2		DWY 3		
Start Time	IN	OUT	IN	OUT	IN	OUT	
7:00	0	0	0	0	0	0	
7:15	0	0	0	0	0	0	
7:30	0	0	0	0	0	0	
7:45	2	0	0	0	0	0	
8:00	2	0	0	1	0	0	
8:15	5	0	0	4	0	0	
8:30	5	0	0	4	0	0	
8:45	5	0	0	5	0	0	
9:00	6	0	0	6	0	0	
Peak Hour							Hourly Totals
7:00 - 8:00	2	0	0	1	0	0	3
7:15 - 8:15	5	0	0	4	0	0	9
7:30 - 8:30	5	0	0	4	0	0	9
7:45 - 8:45	3	0	0	5	0	0	8
8:00 - 9:00	4	0	0	5	0	0	9
Peak Volumes:	**5**	**0**	**0**	**4**	**0**	**0**	**9**

PM Peak-Hour Volume Driveway Count- 19BJ10

AUTO CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, CA 95123

Date: October 2nd, 2019
Counters: Patti
Intersection Name: Bascom and Dry Creek
Weather: Fair

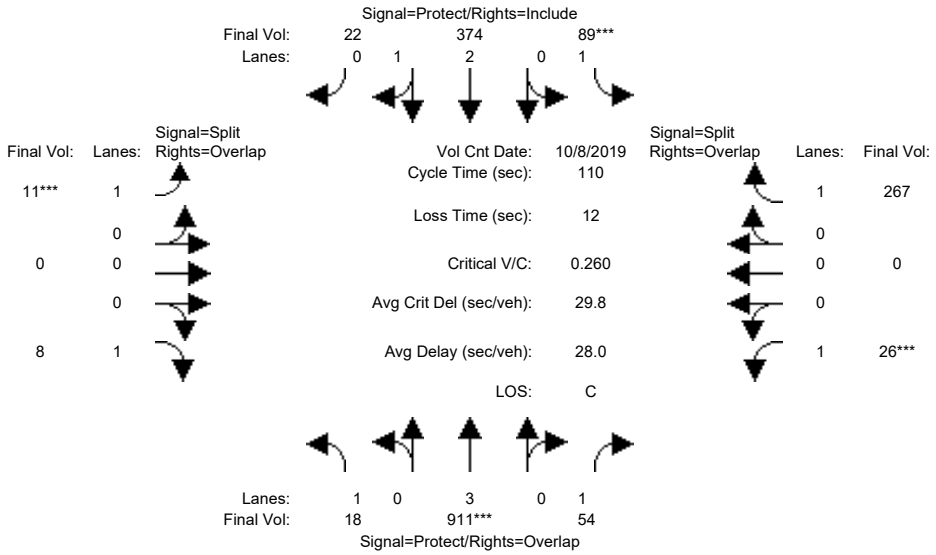
	DWY 1		DWY 2		DWY 3		
Start Time	IN	OUT	IN	OUT	IN	OUT	
4:00	0	0	0	0	0	0	
4:15	1	0	0	1	0	1	
4:30	2	0	0	2	0	1	
4:45	4	0	0	2	0	2	
5:00	5	0	0	5	0	2	
5:15	5	0	0	5	0	3	
5:30	7	0	0	5	0	3	
5:45	8	0	0	5	0	3	
6:00	11	0	0	8	0	4	
Peak Hour							Hourly Totals
4:00 - 5:00	5	0	0	5	0	2	12
4:15 - 5:15	4	0	0	4	0	2	10
4:30 - 5:30	5	0	0	3	0	2	10
4:45 - 5:45	4	0	0	3	0	1	8
5:00 - 6:00	6	0	0	3	0	2	11
Peak Volumes:	**5**	**0**	**0**	**5**	**0**	**2**	**12**

Appendix B
Intersection Level of Service Calculations

Residential Care Facility for the Elderly
2375 & 2395 S Bascom Avenue
San Jose, CA

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

Intersection #3282: Bascom Av & Dry Creek Rd



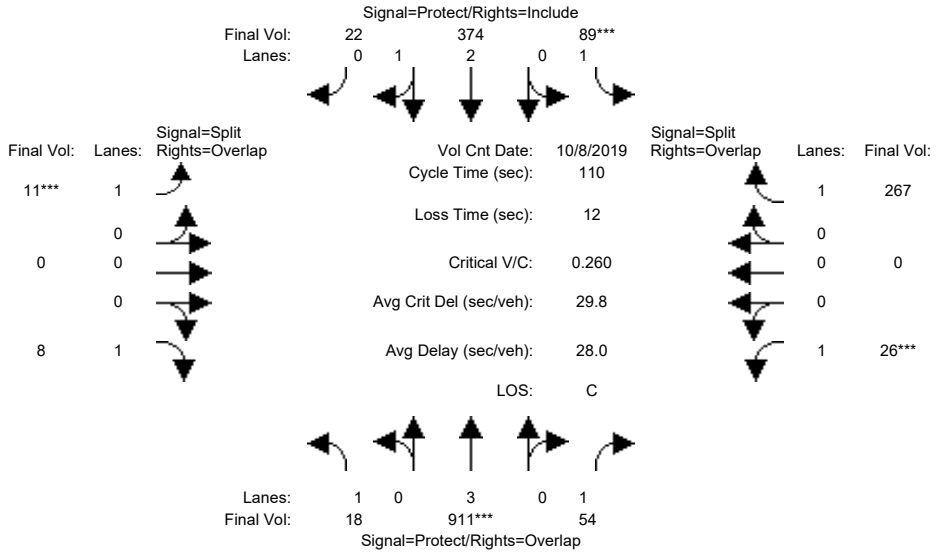
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	0	10	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 Oct 2019 << 8:00-9:00 AM												
Base Vol:	18	911	54	89	374	22	11	0	8	26	0	267
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:	18	911	54	89	374	22	11	0	8	26	0	267
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	911	54	89	374	22	11	0	8	26	0	267
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:	18	911	54	89	374	22	11	0	8	26	0	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	911	54	89	374	22	11	0	8	26	0	267
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	911	54	89	374	22	11	0	8	26	0	267
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	2.83	0.17	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5288	311	1750	0	1750	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.03	0.05	0.07	0.07	0.01	0.00	0.00	0.01	0.00	0.15
Crit Moves:		****		****			****			****		
Green Time:	20.8	38.2	75.8	12.2	29.6	29.6	10.0	0.0	30.8	37.6	0.0	49.8
Volume/Cap:	0.05	0.46	0.04	0.46	0.26	0.26	0.07	0.00	0.02	0.04	0.00	0.34
Delay/Veh:	36.6	28.0	5.5	47.6	31.7	31.7	45.9	0.0	28.7	24.2	0.0	19.7
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:	36.6	28.0	5.5	47.6	31.7	31.7	45.9	0.0	28.7	24.2	0.0	19.7
LOS by Move:	D	C	A	D	C	C	D	A	C	C	A	B
HCM2k95thQ:	1	15	1	7	7	7	1	0	0	1	0	12

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

Residential Care Facility for the Elderly
2375 & 2395 S Bascom Avenue
San Jose, CA

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

Intersection #3282: Bascom Av & Dry Creek Rd



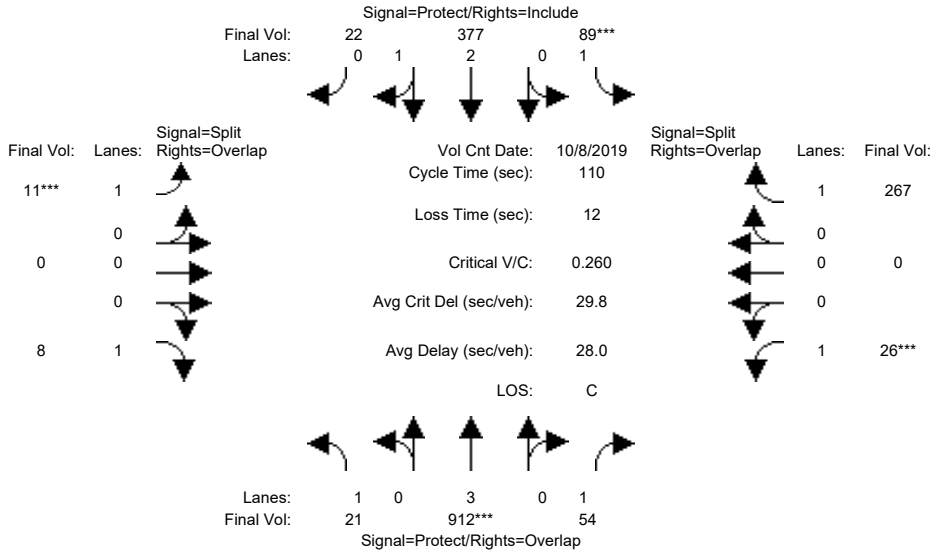
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	0	10	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 Oct 2019 << 8:00-9:00 AM												
Base Vol:	18	911	54	89	374	22	11	0	8	26	0	267
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:	18	911	54	89	374	22	11	0	8	26	0	267
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:	18	911	54	89	374	22	11	0	8	26	0	267
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:	18	911	54	89	374	22	11	0	8	26	0	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	911	54	89	374	22	11	0	8	26	0	267
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	911	54	89	374	22	11	0	8	26	0	267
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	2.83	0.17	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5288	311	1750	0	1750	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.03	0.05	0.07	0.07	0.01	0.00	0.00	0.01	0.00	0.15
Crit Moves:		****		****			****			****		
Green Time:	20.8	38.2	75.8	12.2	29.6	29.6	10.0	0.0	30.8	37.6	0.0	49.8
Volume/Cap:	0.05	0.46	0.04	0.46	0.26	0.26	0.07	0.00	0.02	0.04	0.00	0.34
Delay/Veh:	36.6	28.0	5.5	47.6	31.7	31.7	45.9	0.0	28.7	24.2	0.0	19.7
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:	36.6	28.0	5.5	47.6	31.7	31.7	45.9	0.0	28.7	24.2	0.0	19.7
LOS by Move:	D	C	A	D	C	C	D	A	C	C	A	B
HCM2k95thQ:	1	15	1	7	7	7	1	0	0	1	0	12

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

Residential Care Facility for the Elderly
2375 & 2395 S Bascom Avenue
San Jose, CA

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

Intersection #3282: Bascom Av & Dry Creek Rd



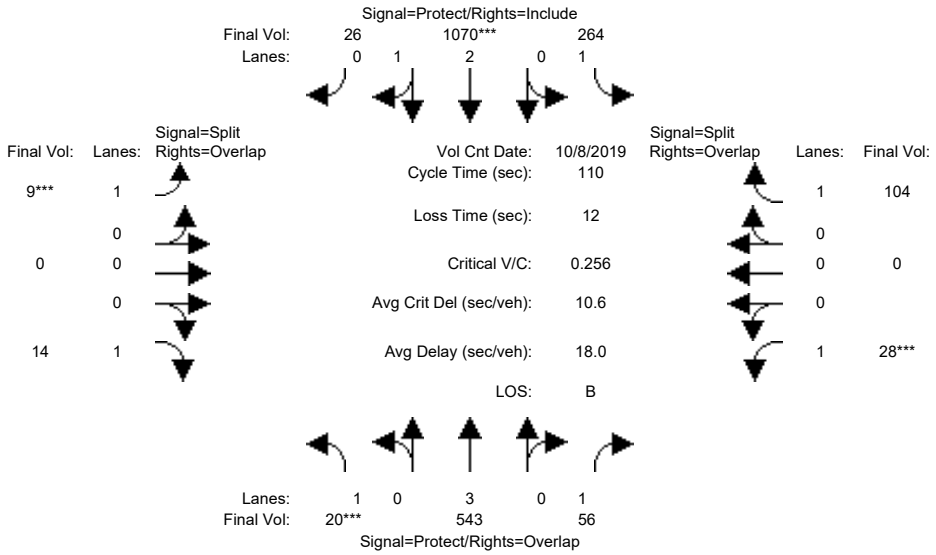
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	0	10	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 Oct 2019 << 8:00-9:00 AM												
Base Vol:	18	911	54	89	374	22	11	0	8	26	0	267
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:	18	911	54	89	374	22	11	0	8	26	0	267
Added Vol:	3	1	0	0	3	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	912	54	89	377	22	11	0	8	26	0	267
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:	21	912	54	89	377	22	11	0	8	26	0	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	912	54	89	377	22	11	0	8	26	0	267
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	912	54	89	377	22	11	0	8	26	0	267
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	2.83	0.17	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5291	309	1750	0	1750	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.03	0.05	0.07	0.07	0.01	0.00	0.00	0.01	0.00	0.15
Crit Moves:		****		****			****			****		
Green Time:	20.8	38.3	75.8	12.2	29.7	29.7	10.0	0.0	30.8	37.6	0.0	49.7
Volume/Cap:	0.06	0.46	0.04	0.46	0.26	0.26	0.07	0.00	0.02	0.04	0.00	0.34
Delay/Veh:	36.7	28.0	5.5	47.6	31.7	31.7	45.9	0.0	28.7	24.2	0.0	19.7
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:	36.7	28.0	5.5	47.6	31.7	31.7	45.9	0.0	28.7	24.2	0.0	19.7
LOS by Move:	D	C	A	D	C	C	D	A	C	C	A	B
HCM2k95thQ:	1	15	1	7	7	7	1	0	0	1	0	12

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

Residential Care Facility for the Elderly
2375 & 2395 S Bascom Avenue
San Jose, CA

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

Intersection #3282: Bascom Av & Dry Creek Rd



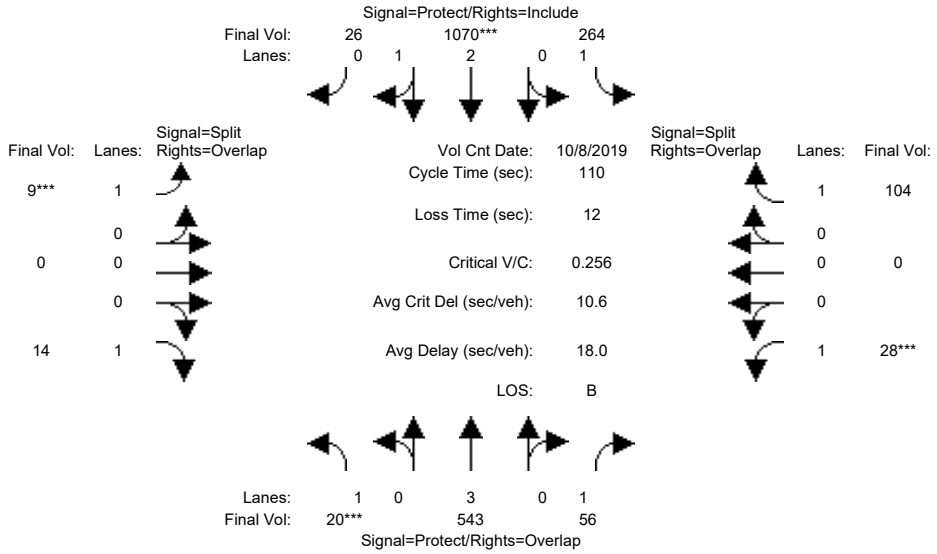
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	0	10	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 Oct 2019 << 5:00-6:00 PM												
Base Vol:	20	543	56	264	1070	26	9	0	14	28	0	104
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:	20	543	56	264	1070	26	9	0	14	28	0	104
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	543	56	264	1070	26	9	0	14	28	0	104
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:	20	543	56	264	1070	26	9	0	14	28	0	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	543	56	264	1070	26	9	0	14	28	0	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	543	56	264	1070	26	9	0	14	28	0	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	2.93	0.07	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5467	133	1750	0	1750	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.03	0.15	0.20	0.20	0.01	0.00	0.01	0.02	0.00	0.06
Crit Moves:	****				****		****			****		
Green Time:	7.0	30.2	40.2	47.8	71.0	71.0	10.0	0.0	17.0	10.0	0.0	57.8
Volume/Cap:	0.18	0.35	0.09	0.35	0.30	0.30	0.06	0.00	0.05	0.18	0.00	0.11
Delay/Veh:	49.6	32.1	22.9	21.0	8.6	8.6	45.8	0.0	39.7	46.7	0.0	13.2
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:	49.6	32.1	22.9	21.0	8.6	8.6	45.8	0.0	39.7	46.7	0.0	13.2
LOS by Move:	D	C	C	C	A	A	D	A	D	D	A	B
HCM2k95thQ:	2	10	3	12	11	11	1	0	1	2	0	4

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

Residential Care Facility for the Elderly
2375 & 2395 S Bascom Avenue
San Jose, CA

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

Intersection #3282: Bascom Av & Dry Creek Rd



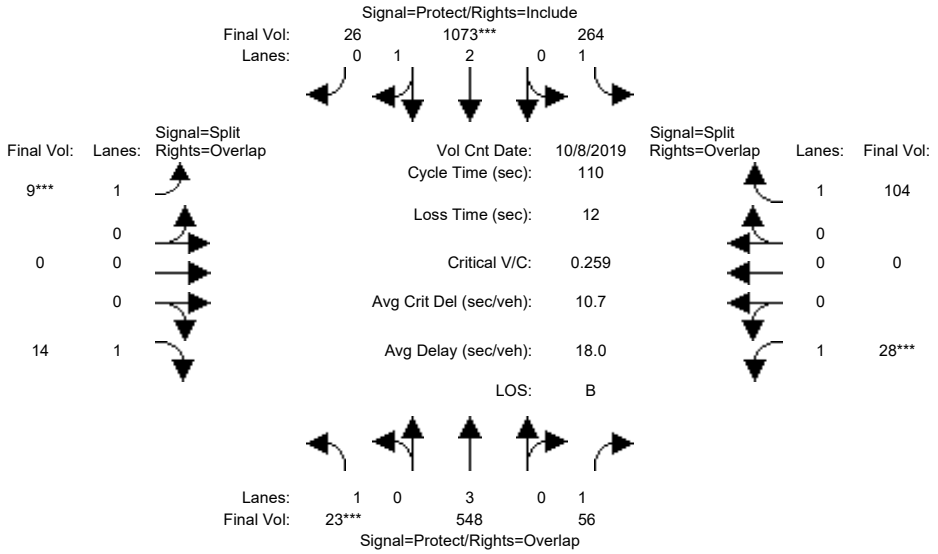
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	0	10	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 Oct 2019 << 5:00-6:00 PM												
Base Vol:	20	543	56	264	1070	26	9	0	14	28	0	104
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:	20	543	56	264	1070	26	9	0	14	28	0	104
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:	20	543	56	264	1070	26	9	0	14	28	0	104
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:	20	543	56	264	1070	26	9	0	14	28	0	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	543	56	264	1070	26	9	0	14	28	0	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	543	56	264	1070	26	9	0	14	28	0	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	2.93	0.07	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5467	133	1750	0	1750	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.03	0.15	0.20	0.20	0.01	0.00	0.01	0.02	0.00	0.06
Crit Moves:	****				****		****			****		
Green Time:	7.0	30.2	40.2	47.8	71.0	71.0	10.0	0.0	17.0	10.0	0.0	57.8
Volume/Cap:	0.18	0.35	0.09	0.35	0.30	0.30	0.06	0.00	0.05	0.18	0.00	0.11
Delay/Veh:	49.6	32.1	22.9	21.0	8.6	8.6	45.8	0.0	39.7	46.7	0.0	13.2
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:	49.6	32.1	22.9	21.0	8.6	8.6	45.8	0.0	39.7	46.7	0.0	13.2
LOS by Move:	D	C	C	C	A	A	D	A	D	D	A	B
HCM2k95thQ:	2	10	3	12	11	11	1	0	1	2	0	4

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

Residential Care Facility for the Elderly
2375 & 2395 S Bascom Avenue
San Jose, CA

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

Intersection #3282: Bascom Av & Dry Creek Rd



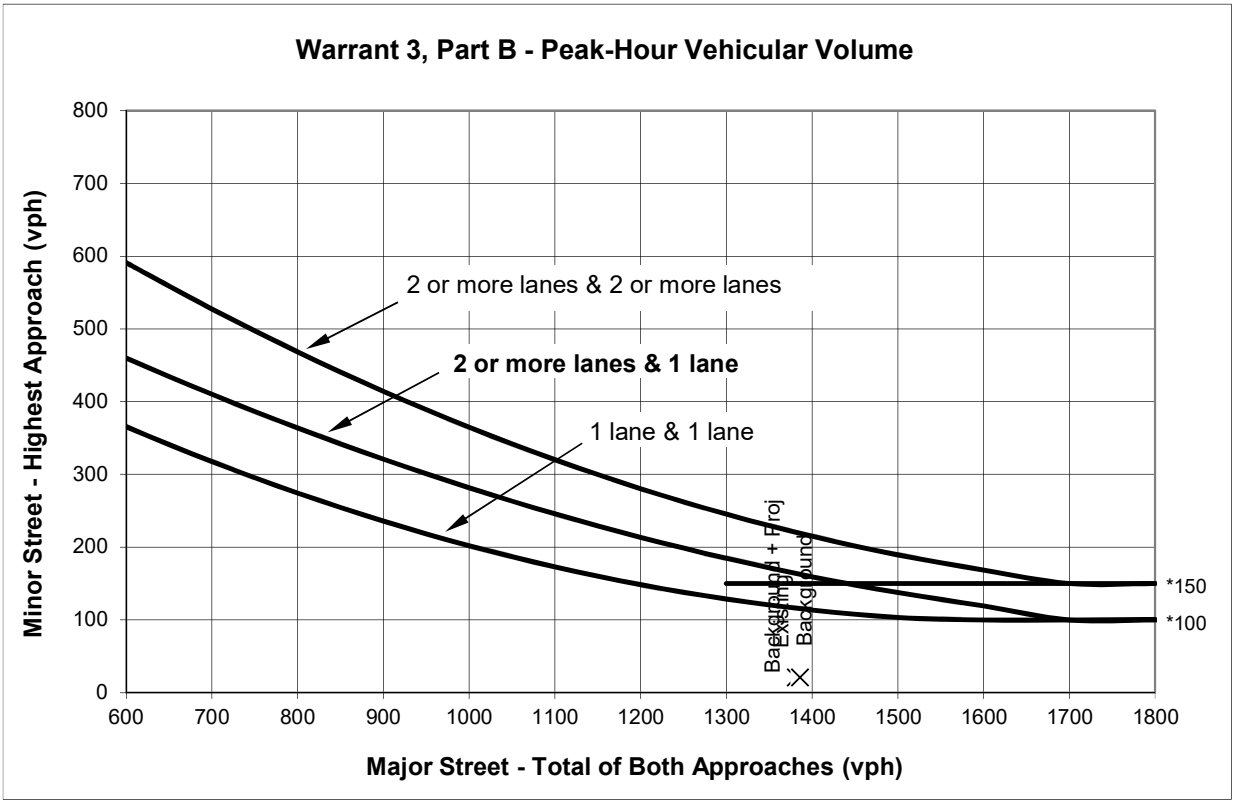
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	0	10	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 8 Oct 2019 << 5:00-6:00 PM												
Base Vol:	20	543	56	264	1070	26	9	0	14	28	0	104
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:	20	543	56	264	1070	26	9	0	14	28	0	104
Added Vol:	3	5	0	0	3	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	548	56	264	1073	26	9	0	14	28	0	104
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:	23	548	56	264	1073	26	9	0	14	28	0	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	548	56	264	1073	26	9	0	14	28	0	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	548	56	264	1073	26	9	0	14	28	0	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	2.93	0.07	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5467	132	1750	0	1750	1750	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.03	0.15	0.20	0.20	0.01	0.00	0.01	0.02	0.00	0.06
Crit Moves:	****				****		****			****		
Green Time:	7.0	30.4	40.4	47.6	71.0	71.0	10.0	0.0	17.0	10.0	0.0	57.6
Volume/Cap:	0.21	0.35	0.09	0.35	0.30	0.30	0.06	0.00	0.05	0.18	0.00	0.11
Delay/Veh:	49.8	32.0	22.8	21.1	8.6	8.6	45.8	0.0	39.7	46.7	0.0	13.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.8	32.0	22.8	21.1	8.6	8.6	45.8	0.0	39.7	46.7	0.0	13.3
LOS by Move:	D	C	C	C	A	A	D	A	D	D	A	B
HCM2k95thQ:	2	10	3	12	11	11	1	0	1	2	0	4

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

Appendix C
Signal Warrant Sheets

South Bascom Avenue and Surrey Lane

South Bascom Avenue & Surrey Lane **AM PEAK PERIOD**



Source: Figure 4C-3 *California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California)* .

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

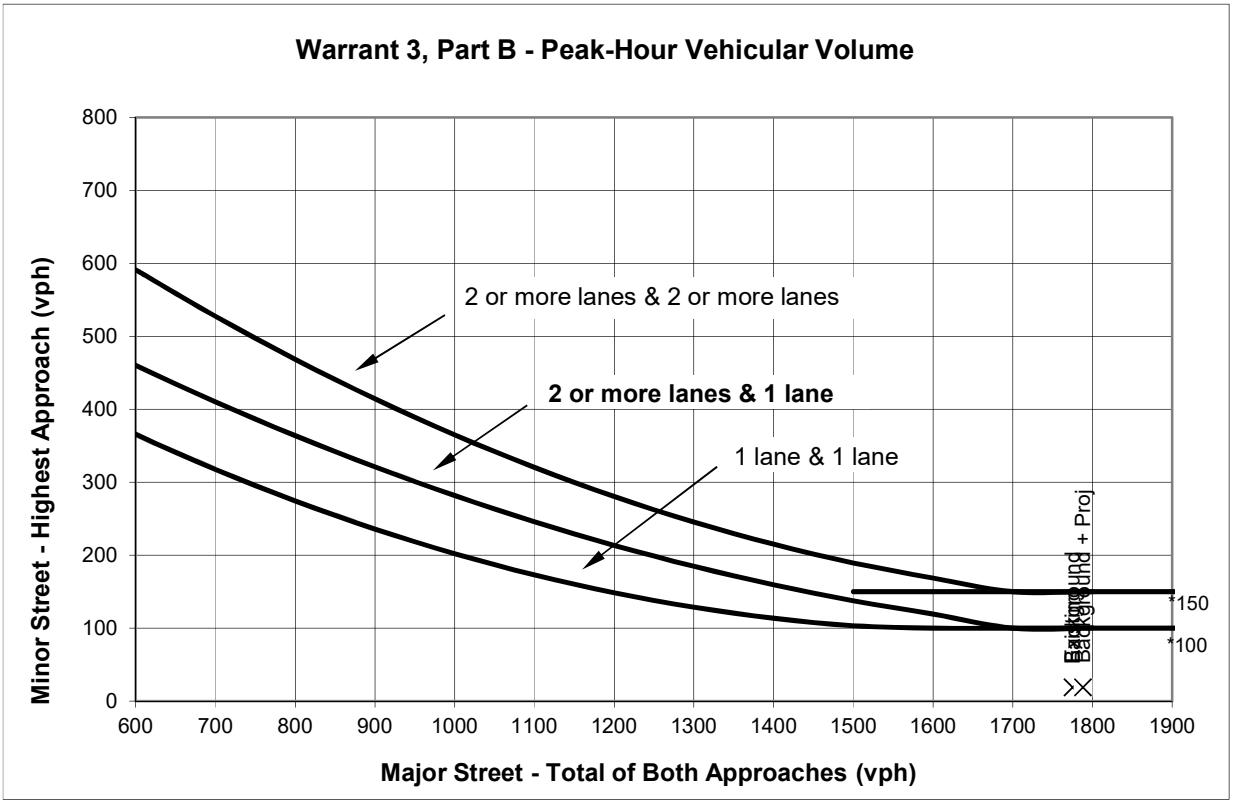
Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Background + Proj					
Major Street - Both Approaches	S. Bascom Av		X	1381	1381	1386					
Minor Street - Highest Approach	Surrey Ln/ DW	X		21	21	21					
Signal Warranted Based on Part B - Peak-Hour Volumes?				**No**	**No**	**No**					

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.
Note 1: Right turn volumes were not removed from minor approaches.

South Bascom Avenue and Surrey Lane

South Bascom Avenue & Surrey Lane **PM PEAK HOUR**



Source: Figure 4C-3 *California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California)* .

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		PM PEAK HOUR							
		One	2 or More	Existing	Background	Background + Proj					
Major Street - Both Approaches	S. Bascom Av		X	1775	1775	1788					
Minor Street - Highest Approach	Surrey Ln/ DW	X		19	19	19					
Signal Warranted Based on Part B - Peak-Hour Volumes?				**No**	**No**	**No**					

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.
Note 1: Right turn volumes were not removed from minor approaches.

Brian Jackson, Senior Associate

Education

Bachelor of Science in Environmental Studies, San Jose State University, San Jose, California

Professional Associations

Member, Institute of Transportation Engineers

Experience

Since 1998, Mr. Jackson has managed and prepared a variety of site traffic impact studies, transportation planning projects and traffic engineering studies in California and Nevada for both public and private clients. The traffic studies have included analyses for various developments including residential and mixed-use projects, shopping centers and malls, elementary and high schools, college campus expansions, libraries, hotels, recycling and waste transfer facilities, stadiums, and medical and general office developments within cities in Santa Clara, Monterey, San Mateo, Alameda, Solano and San Benito Counties in California, as well as Las Vegas and Reno, Nevada.

Mr. Jackson has conducted traffic operations analyses using TRAFFIX, HCS, Synchro and SimTraffic software, transportation corridor studies, parking studies, site access and circulation studies, and neighborhood traffic calming studies, and has contributed to the development of Transportation Demand Management (TDM) programs.

Representative Projects

- **Transit Oriented Residential Development Project** in San Jose, California. An EIR-level traffic impact analysis was prepared for a mixed-use residential development project located adjacent to light rail transit near the core downtown area of San Jose. The traffic analysis included project trip generation, distribution and assignment estimates, intersection and freeway level-of-service analyses, signal warrant checks, a parking analysis, evaluation of bicycle and pedestrian circulation and facilities, vehicle queuing analysis at driveways and intersections, evaluation of existing transit services, and future transit demand estimates. Site access and on-site circulation were assessed and recommendations made to improve the overall circulation and safety on and around the project site.

- **San Jose General Plan Amendment (GPA) Traffic Studies** in San Jose, California. Hexagon has prepared numerous long-range traffic impact studies for GPAs using data from the City of San Jose's CUBE travel demand forecasting model. These long-range analyses typically include the following: assessment of changes in vehicle miles traveled and vehicle hours traveled within the proximity of the site, evaluation of peak direction traffic volumes across an identified special subarea boundary (cordon line), and identification of roadway capacity constraints and area-wide traffic tendencies within the City's sphere of influence.

- **Shopping Center Redevelopment Project** in Milpitas, California. An EIR-level traffic impact analysis was prepared for the redevelopment of the Milpitas Town Center in Milpitas, California. The traffic analysis focused on vehicle access, on-site circulation and parking supply. Conceptual mitigation drawings for improvements at the Hillview/Town Center driveway and Hillview/Calaveras intersection were prepared. The traffic analysis showed that the recommended improvements would substantially reduce vehicle queuing and improve the overall operations and safety at the reconfigured project driveway and intersection locations.

- **Soccer Stadium Project** in San Jose, California. An EIR-level traffic impact analysis was prepared for a proposed 18,000-seat soccer stadium in San Jose. Recommendations were made to improve intersection levels of service, driveway operations, site circulation, and transit service, including the development of a Traffic and Parking Management Plan (TPMP).