HEXAGON TRANSPORTATION CONSULTANTS, INC.

City of San José 2022 General Plan Amendments

Long-Range Transportation Analysis

Prepared for:

City of San José

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1. Introduction

This report presents the results of the long-range transportation impact analysis completed for the proposed City of San José 2022 General Plan Amendments (project). The project consists of amending the currently adopted land use designations of the Envision San José 2040 General Plan (GP) for six sites within the City of San José. The purpose of the General Plan Amendments (GPAs) transportation analysis (TA) is to assess the long-range impacts of the amendments on the citywide transportation system. The potential transportation impacts of the project were evaluated in accordance with the guidelines set forth by the City of San José for GPA TA.

The GPA TA provides an evaluation of the changed circumstances of future conditions in the currently adopted Envision San José 2040 General Plan due to the proposed 2022 General Plan amendments. The adopted GP identifies the long-range planned land uses and transportation system within the City projected to the Year 2040 and serves as the baseline for the evaluation of transportation impacts of the GPAs. The results of the analysis for the proposed land use adjustments are compared to the results of the adopted GP to determine if the proposed 2022 General Plan amendments would result in any new or substantially more severe transportation impacts than those impacts that were already analyzed for the adopted GP.

After General Plan amendments to the Land Use/Transportation Diagram become effective, which is generally 30 days after Council approval, these General Plan amendments are incorporated into the updated General Plan Land Use/Transportation Diagram. This process may occur up to four times a year under State law. Therefore, the current General Plan includes all amendments that were approved in the City's 2021 General Plan Amendment cycle.

The Envision San José 2040 General Plan Land Use/Transportation Diagram designates the type, intensity, and general distribution of planned land uses within San José. Because the 2022 General Plan amendments propose changes to sites' land use designations, this TA evaluates the incremental changes from uses and intensities allowed under the sites' current land use designations to the uses and intensities proposed under the proposed General Plan land use designations for each site. The baseline of the current land use designation is used (as opposed to the existing physical condition) because the General Plan EIR and subsequent reviews have already evaluated the potential transportation CEQA impacts of building out the adopted General Plan using an existing condition baseline in 2015. The existing condition baseline was reviewed, analyzed, and updated again as part of this study, and it was determined based on substantial evidence that the proposed 2022 General Plan amendments would not result in any new or substantially more severe transportation impacts than those impacts that were already analyzed for the current General Plan.

Further, the build-out of the General Plan and related environmental analysis under CEQA assumes that development overall in the City will occur at the middle range of the General Plan land use designations or be consistent with surrounding development intensities. The reason why the middle or

typical range is used as opposed to the maximum intensities potentially allowed under various General Plan land use designations is that building out under the maximum intensities for all General Plan land designations would exceed the total planned growth capacity allocated in the General Plan, and this maximum amount of build-out does not represent typical development patterns or the average amount of development built on each site. General Plan land use designations allow a wide range of development intensities and types of land uses to accommodate growth; however, development projects are not typically proposed at the maximum densities due to existing development patterns, site and parking constraints, Federal Aviation Administration regulations, maximum allowable height provisions and other development regulations in the San José Municipal Code in Title 20 (Zoning), market conditions, and other factors.

For example, several General Plan land use designations include a maximum intensity for each use allowed under a land use designation and also allow a mix of land uses. On a site where development is mixed-use, there is a height limit, or there is a minimum required setback, achieving the maximum allowable intensities for each land use in the development is often physically infeasible. To evaluate the incremental changes of the proposed General Plan land use amendments, average residential and commercial densities for development under these land use designations and in the planning areas of the proposed General Plan amendments for San José are assumed for the current and proposed land use designations on each site. Individual development projects will be required to complete a near-term transportation analysis in conjunction with any future development permit applications.

Proposed 2022 GPA Site Descriptions

The project consists of amending the currently adopted land use designations of the Envision San José 2040 General Plan (GP) for six sites within the City of San José (see Figure 1). The GPA sites, described in detail in the following chapter, include the following:

Site 1 – GP19-010/PDC19-041/PDC 20-013 (Granite Rock)
Site 2 – GP21-001/PDC22-005/PD22-010 (Monterey Road)
Site 3 – GP21-015/PDC21-036/PD21-020 (Evergreen)
Site 4 – GP22-001/C22-014 (Pecten Court)
Site 5 – GP22-007/C22-022 (Presentation High)
Site 6 – GP22-008/C22-023 (Julian)

Each of the proposed land use amendments and resulting changes in households and employment for each of the proposed GPA sites are described in detail within the following chapters.

GPA Analysis Exemption

The City of San José Travel Demand Forecasting (TDF) model, which is described in detail in Chapter 3, was developed to help the City project peak-hour transportation impacts attributable to proposed amendments to the City's General Plan. The model is used to estimate the net change in peak-hour trips that are attributable to a proposed amendment. The City has established peak-hour trip thresholds for GP land use amendments that require a site-specific GPA transportation analysis. It is presumed that amendments resulting in trips less than the trip thresholds would not create significant long-term impacts by themselves. The City's trip thresholds for requiring a site-specific GPA transportation analysis are presented in the City of San José Transportation Analysis Handbook, April 2020 and are shown in Table 1 below.

Figure 1
Proposed GPA Site Locations

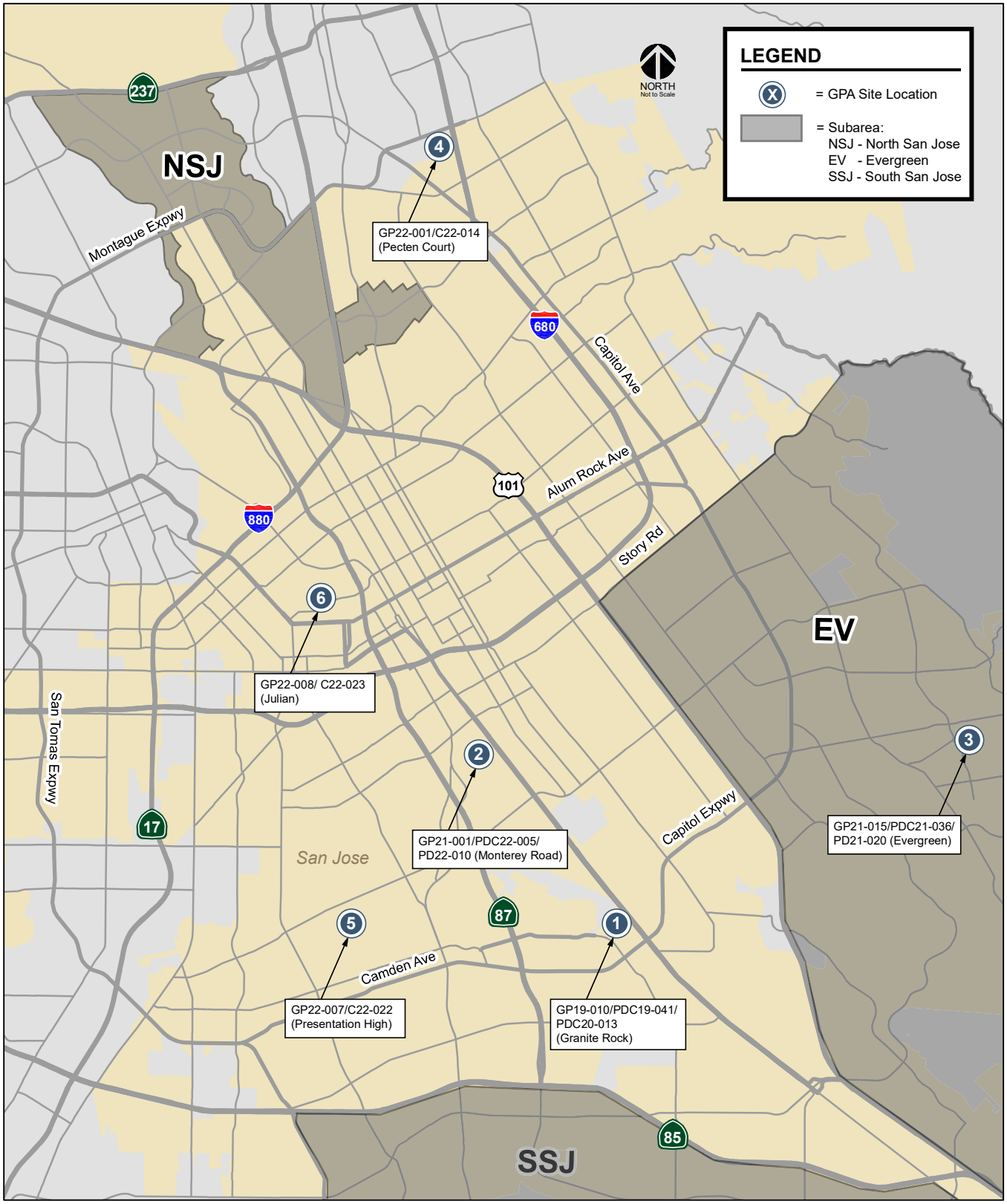


Table 1
Site-Specific Long-Range TA Screening Criteria for Land Use Amendments

Location of Amendment	Maximum Allowable PM Peak Hour Vehicle-Trips			
	Expansion of Residential Use[1]	Conversion from Residential to Non-Residential Use[2]	Conversion from Non-Residential to Residential Use[2]	Expansion of Non-Residential Use[1]
North San Jose	1,000	0	500	50
Evergreen	15	600	0	300
South San Jose	50	600	0	300
Remainder of City	250	250	250	250

Notes:
Source: City of San Jose *Transportation Analysis Handbook* , Table 12 (April 2020)
[1] The screening criteria for a proposed expansion of the same lane use are measured in net new PM peak hour vehicle-trips.
[2] The screening crteria for a proposed land use conversion are measured in total PM peak hour vehicle-trips generated by the proposed use.

With the exception of GPA sites located within the identified North San José, Evergreen, and South San José special subareas (see Figure 1), a proposed land use amendment that would result in an increase of more than 250 PM peak-hour trips to be generated by the subject site would be required to prepare a site-specific GPA transportation analysis.

One of the six subject GPA sites (#3 – Evergreen) is located inside the Evergreen special subarea. Site #3 proposes a conversion of non-residential to residential land uses and is subject to a no net increase in PM peak-hour trip threshold. Based on the TDF modeling results, the increase in households and jobs would result in a net increase in PM peak-hour trips to site #3. Therefore, the preparation of a site-specific GPA transportation analysis for the proposed land use amendment on site #3 is required.

The remaining five GPA sites are located outside the special subareas and are subject to the 250 PM peak-hour trip threshold. The proposed land use amendments at the remaining five sites would not result in a net increase of more than 250 PM peak-hour trips and therefore would not require a site-specific GPA transportation analysis. Table 3 in the next chapter shows the net increases in trips due to the proposed land use amendments.

Scope of Study

The purpose of the GPAs TA is to assess the long-range impacts of the proposed amendments on the citywide transportation system. This study includes an evaluation of the cumulative impacts of all six GPA sites with the proposed land use amendments. The study also provides the required site-specific GPA transportation analysis for the above-identified GPA site. Individual development projects also will be required to complete a near-term transportation analysis in conjunction with any future development permit applications consistent with the Envision San José 2040 GP. The potential transportation impacts of the project were evaluated in accordance with the guidelines set forth by the City of San José for GPA transportation analysis.

The project consists of land use changes to the current adopted GP land uses. The project does not propose any changes to the citywide transportation system. The GPA long-range transportation analysis focuses on the potential changes in the citywide transportation system in the horizon year of the GP (2040) when the GP capacities for housing and jobs are fully developed. The analysis includes an evaluation of the effects on vehicle miles traveled, mode-share of travel, impacts to travel speeds on transit priority corridors, and impacts on the pedestrian, bicycle, and transit facilities. Impacts are evaluated based on the same Measures of Effectiveness (MOEs) and significance criteria utilized in the

Envision San José 2040 GP TIA. Traffic conditions were evaluated for the following traffic scenarios using the City's TDF model:

- **Projected Year 2015 Conditions:** The Projected Year 2015 Conditions represent a projection of transportation conditions in 2015 using the City's GP TDF model. The roadway network also reflects the Year 2015 roadway network and transportation system.
- **Current 2040 General Plan Conditions:** Future traffic due to the current GP land uses (i.e., including the adopted GP Four-Year Review Land Use adjustments and adopted 2021 GP Amendments) is added to regional growth that can be reasonably expected to occur by 2040. Current 2040 GP conditions include the current roadway network as well as all transportation system improvements as identified in the current GP.
- **Cumulative 2040 General Plan plus Cumulative GPA Conditions:** Current 2040 GP conditions with the proposed land use amendments at all six proposed GPA sites. Transportation conditions for the Cumulative 2040 GP plus Cumulative GPA conditions were evaluated relative to the currently adopted 2040 GP Conditions to determine any long-range transportation impacts.

Report Organization

The remainder of this report is divided into the following chapters. Chapter 2 presents a detailed description of each of the proposed GPA sites included in the analysis. Chapter 3 describes the analysis methodology, including the City's TDF model, and the MOEs and significance thresholds used in the analysis. Chapter 4 presents the results of the cumulative analysis based on the TDF modeling and citywide MOEs for the proposed GPAs. Chapter 5 presents the site-specific transportation analysis for the Evergreen GPA. Chapter 6 presents the conclusions of the long-range cumulative and site-specific GPA analyses.

2. General Plan Amendment Site Descriptions

The proposed project consists of amending land uses currently adopted in the Envision San José 2040 General Plan on six sites. The amendment sites are described in more detail below along with peak-hour trip generation estimates for each of the proposed GPA sites.

Envision San José 2040 General Plan

The City of San José Envision San José 2040 General Plan was adopted in 2011 and was based on planned land uses within the City projected to the Year 2035. Subsequent reviews in 2010, 2011, 2016, and 2020 resulted in the currently adopted General Plan, which includes the base year of 2015 and the horizon year of the planned land uses to the Year 2040. Thus, the adopted General Plan TA provides a comprehensive evaluation of the effects of the planned land uses as identified in the current GP on the citywide transportation system and is used as the baseline from which impacts due to land use amendments such as the proposed project are evaluated.

Land use data consisting of households and employment growth for each of the proposed GPA sites as reflected in the adopted GP and the proposed land use amendments were prepared by the Department of Planning, Building, and Code Enforcement and provided to Hexagon for use in this analysis.

General Plan Amendment Sites

The project includes six proposed GPA sites GP19-010/PDC19-041/PDC20-013, GP21-001/PDC22-005/PD22-010, GP21-015/PDC21-036/PD21-020, GP22-001/C22-014, GP22-007/C22-022, and GP22-008/C22-023.

Four of the six proposed GPAs would result in increases in the total number of households and jobs on each site when compared to those adopted per the Envision San José 2040 GP for each site. However, the proposed GPAs will not change the total number of jobs and households citywide. The remaining two sites would consist only of land use designation changes with no change to the total number of jobs and households on each site. The TDF model is used to rebalance the number of households and jobs citywide to maintain the General Plan Goal of 429,350 households and 751,650 jobs.

Table 2 summarizes the land uses and density for each proposed site under the current 2040 GP and the proposed GPAs. Table 3 summarizes the changes in households and jobs for each site and the resulting increases in peak-hour trips. The peak-hour trips for each site were estimated using the City of San José's TDF model. The TDF modeling is described in Chapter 3.

Table 2
Existing GP and Proposed GPA Land Uses

Site Number	Project Name	Location	APN	Size (acres)	2040 General Plan (Baseline)		Proposed General Plan Amendment	
					Land Use	Density	Land Use	Density
1	GP19-010/PDC19-041 /PDC20-013 (Granite Rock)	120 Granite Rock Way	462-17-024 462-17-025	22.56	Combined Industrial/Commercial	FAR 0.75	Heavy Industrial	0.30 FAR
2	GP21-001/PDC22-005/PD22-010 (Monterey Road)	1669 Monterey Road	456-02-020 456-02-019	1.18	Heavy Industrial	0.30 FAR	Combined Industrial/Commercial	0.75 FAR
3	GP21-015/PDC21-036/PD21-020 (Evergreen)	Classico Avenue at Evergreen Village Square	659-57-015	0.54	Open Space, Parklands, Habitat	0.00	Mixed-Use Neighborhood	25 DU/AC & 0.35 FAR
4	GP22-001/C22-014 (Pecten Court)	0 Pecten Court	092-08-016	3.69	Public/Quasi Public	100 DU/AC & 0.30 FAR	Heavy Industrial	0.30 FAR
5	GP22-007/C22-022 (Presentation High)	2267 Plummer Avenue	446-38-005	0.39	Residential Neighborhood	8 DU/AC	Public/Quasi Public	100 DU/AC & 0.30 FAR
6	GP22-008/C22-023 (Julian)	945 West Julian Street 379 North Morrison Avenue	261-02-053 261-02-009	0.46	Mixed-Use Commercial	25 DU/AC & 0.50 FAR	Transit Residential	150 DU/AC & 0.50 FAR

Notes: FAR = floor-to-area ratio; DU = dwelling units; AC = acre; APN = assessor's parcel number
Source: City of San Jose Planning Department (August 2022).

Table 3
Changes in Households, Jobs, and Peak-Hour Trips

Site Number	Site Name	2040 General Plan (Baseline)[1]		2040 General Plan Plus Cumulative		Net Land Use Change		Net Peak-Hour Trip Change	
		TOTHH	TEMP	TOTHH	TEMP	TOTHH	TEMP	AM	PM
1	GP19-010/PDC19-041 /PDC20-013(Granite Rock)	14	906	14	906	0	0	0	0
2	GP21-001/PDC22-005/PD22-010 (Monterey Road)	702	1,185	702	1,266	0	81	41	63
3	GP21-015/PDC21-036/PD21-020 (Evergreen)	987	169	997	196	10	27	26	**37**
4	GP22-001/C22-014 (Pecten Court)	771	116	771	116	0	0	-16	-29
5	GP22-007/C22-022 (Presentation High)	493	254	529	259	36	5	24	29
6	GP22-008/C22-023 (Julian)	945	1,135	1,002	1,135	58	0	36	48

Notes: TOTHH = total number of households; TEMP = total number of jobs.
[1]Total number of households and jobs under the adopted Envision San Jose 2040 General Plan (GP).
The buildout of the 2040 GP represents baseline conditions.
[2]Total number of households and jobs as proposed by the GP Amendments.
Outlined indicates GPA that results in an increase in PM peak hour trips greater than threshold that requires site-specific GPA transportation analysis.
Source: City of San Jose Planning Department, August 2022.
City of San Jose Travel Forecasting Model runs completed August 2022 by Hexagon Transportation Consultants, Inc.

Proposed land use changes for each of the GPA sites are described below.

- **Site 1 – GP19-010/PDC19-041/PDC20-013 (Granite Rock):** The 22.56-acre site is generally bounded by Hillsdale Avenue to the north, Monterey Road to the east, the Capitol Drive-In Theater to the south, and Hillcap Avenue to the west. Figure 2 shows the location of the site. The adopted GP land use designation for the site is Combined Industrial/Commercial, and the proposed amendment involves changing the adopted land use to Heavy Industrial. The proposed amendment would not result in a change in the number of households and jobs on the site. Based on the TDF modeling results, the proposed GPA would not result in an increase of more than 250 PM peak-hour trips to be generated by the subject site, and thus a site-specific GPA TA is not required.
- **Site 2 – GP21-001/PDC22-005/PD22-010 (Monterey Road):** The 1.18-acre site is located on the west side of Monterey Road between Phelan Avenue and San Jose Avenue. Figure 3 shows the location of the site. The adopted GP land use designation for the site is Heavy Industrial, and the proposed amendment involves changing the adopted land use to Combined Industrial/ Commercial. The proposed amendment would result in 81 additional jobs on the site. Based on the TDF modeling results, the proposed GPA would not result in an increase of more than 250 PM peak-hour trips to be generated by the subject site, and thus a site-specific GPA TA is not required.
- **Site 3 – GP21-015/PDC21-036/PD21-020 (Evergreen):** The 0.54-acre site is located along the north side of Classico Avenue at Evergreen Village Square within the Evergreen special subarea. Figure 4 shows the location of the site. The adopted GP land use designation for the site is Open Space, Parklands, and Habitat, and the proposed amendment involves changing the adopted land use to Mixed-Use Neighborhood. The proposed amendment would result in 10 additional households and 27 additional jobs on the site. Based on the TDF modeling results, the increase in households and jobs would result in a net increase in PM peak-hour trips by the subject site, and thus a site-specific GPA TA is required.
- **Site 4 – GP22-001/C22-014 (Pecten Court):** The 3.69-acre site is located at the terminus of Pecten Court. Figure 5 shows the location of the site. The adopted GP land use designation for the site is Public/Quasi Public, and the proposed amendment involves changing the adopted land use to Heavy Industrial. The proposed amendment would not result in a change in the number of households and jobs but would result in a change in the types of jobs on the site. Based on the TDF modeling results, the proposed GPA would not result in an increase of more than 250 PM peak-hour trips to be generated by the subject site, and thus a site-specific GPA TA is not required.
- **Site 5 – GP22-007/C22-022 (Presentation High):** The 0.39-acre site is located on the southwest corner of the Plummer Avenue/Minardi Avenue intersection. Figure 6 shows the location of the site. The adopted GP land use designation for the site is Residential Neighborhood, and the proposed amendment involves changing the adopted land use to Public/Quasi Public. The proposed amendment would result in 36 additional households and 5 additional jobs on the site. Based on the TDF modeling results, the proposed GPA would not result in an increase of more than 250 PM peak-hour trips to be generated by the subject site, and thus a site-specific GPA TA is not required.
- **Site 6 – GP22-008/C22-023 (Julian):** The 0.46-acre site is located on the northwest corner of the Morrison Avenue/Julian Street intersection. Figure 7 shows the location of the site. The adopted GP land use designation for the site is Mixed-Use Commercial, and the proposed amendment involves changing the adopted land use to Transit Residential. The proposed amendment would result in 58 additional households on the site. Based on the TDF modeling

results, the proposed GPA would not result in an increase of more than 250 PM peak-hour trips to be generated by the subject site, and thus a site-specific GPA TA is not required.

Figure 2
Location of GPA Site 1: GP19-010/PDC19-041/PDC20-013 (Granite Rock)

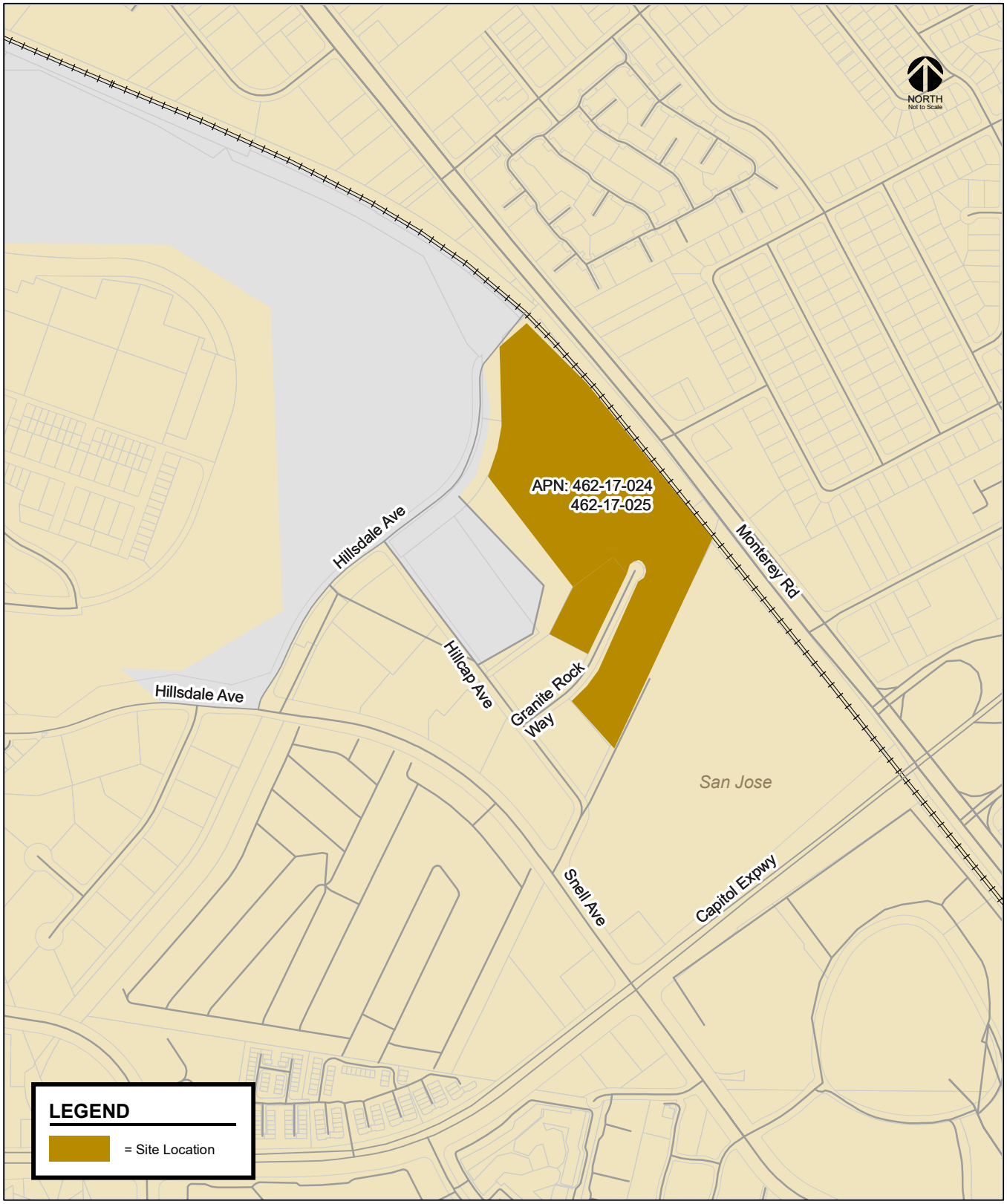


Figure 3
Location of GPA Site 2: GP21-001/PDC22-005/PD22-010 (Monterey Road)

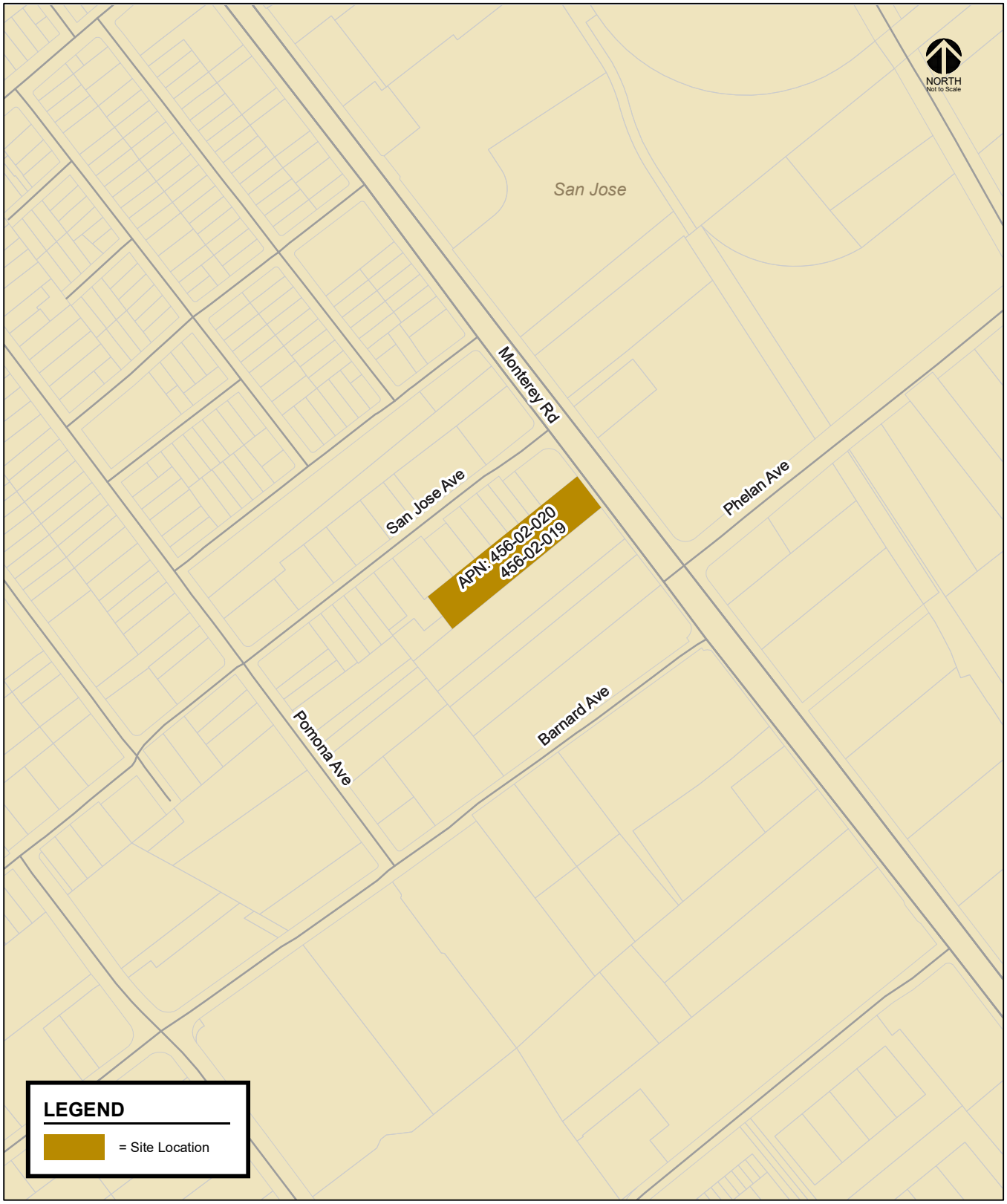


Figure 4
Location of GPA Site 3: GP21-015/PDC21-036/PD21-020 (Evergreen)

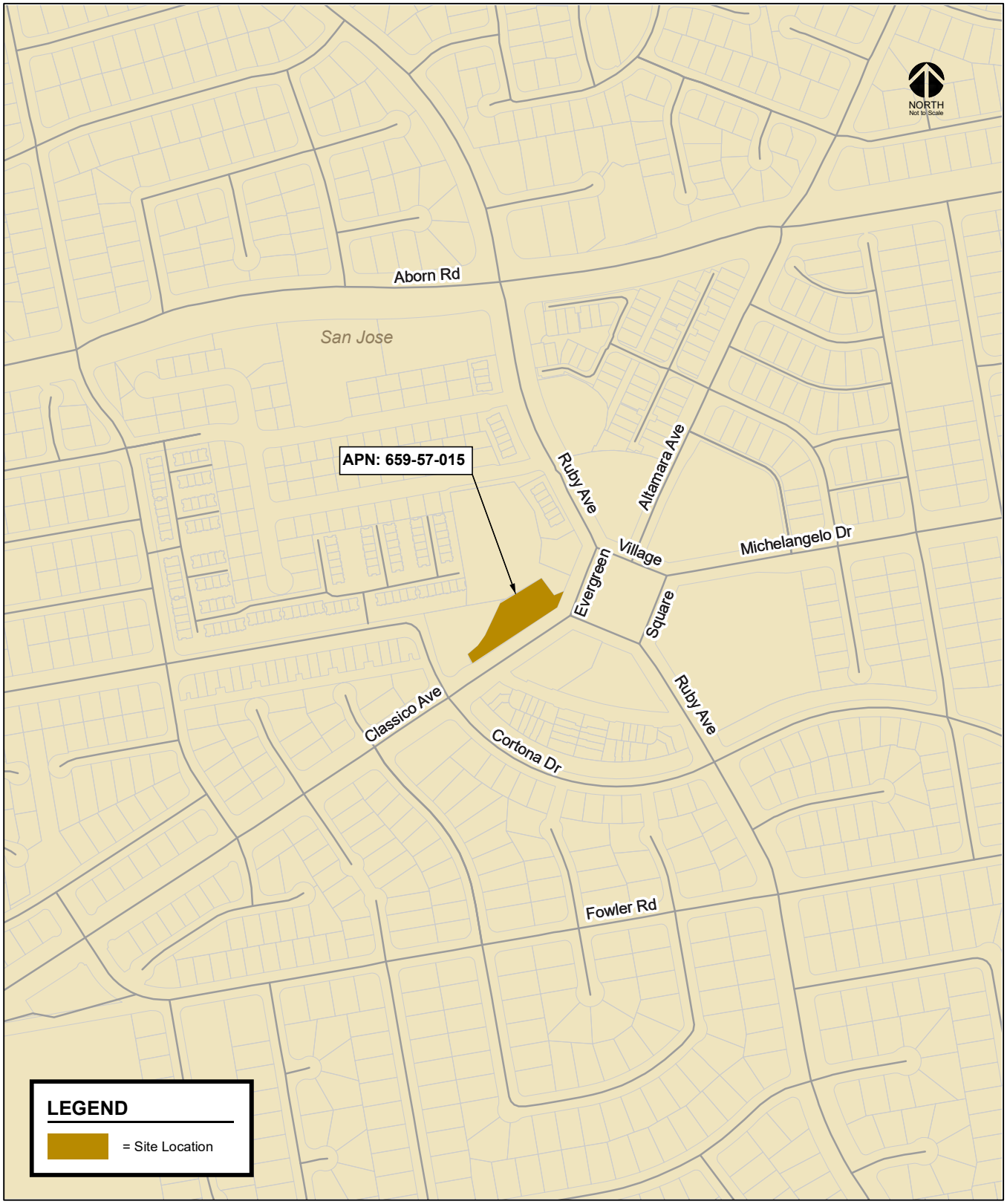


Figure 5
Location of GPA Site 4: GP22-001/C22-014 (Pecten Court)

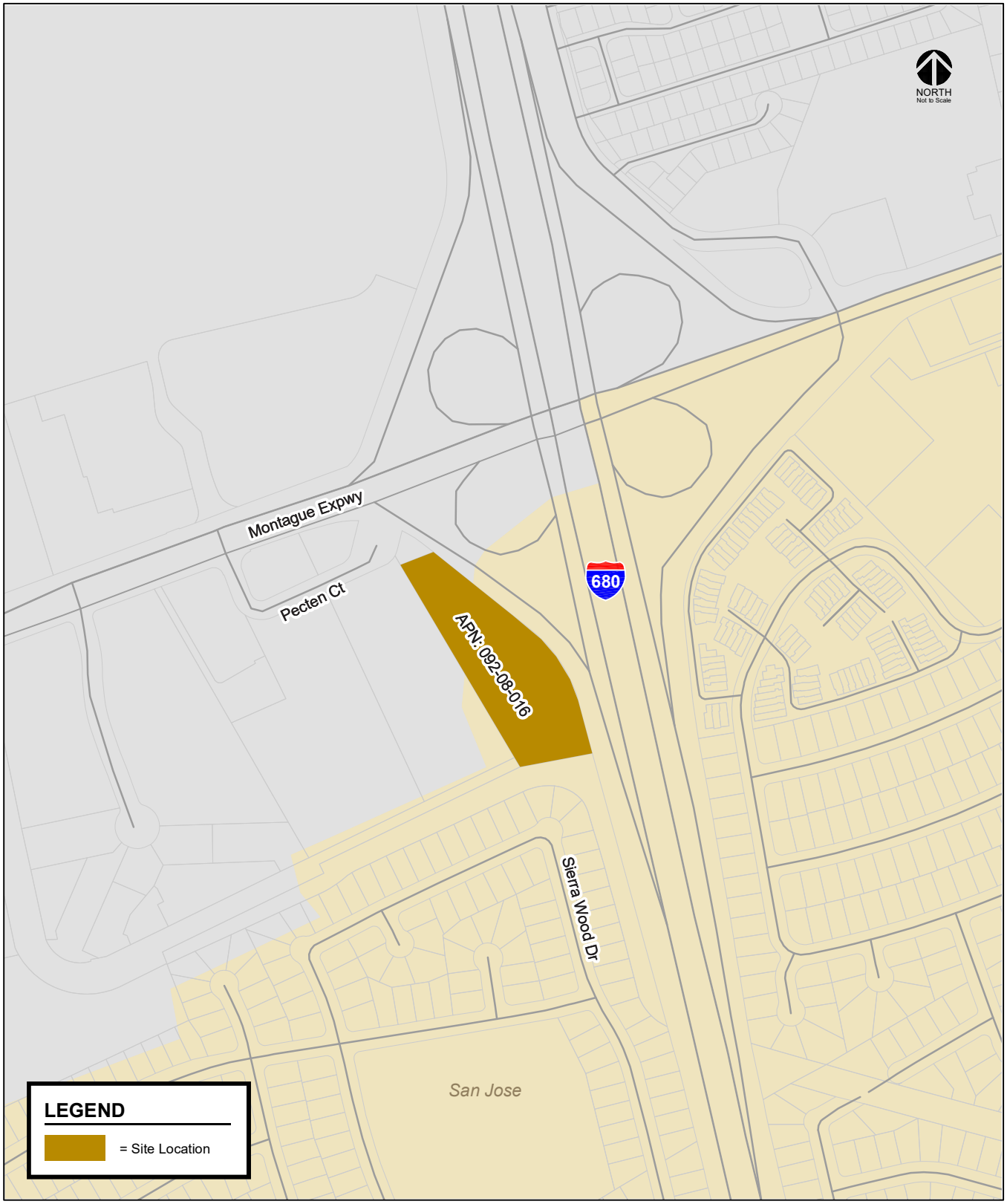
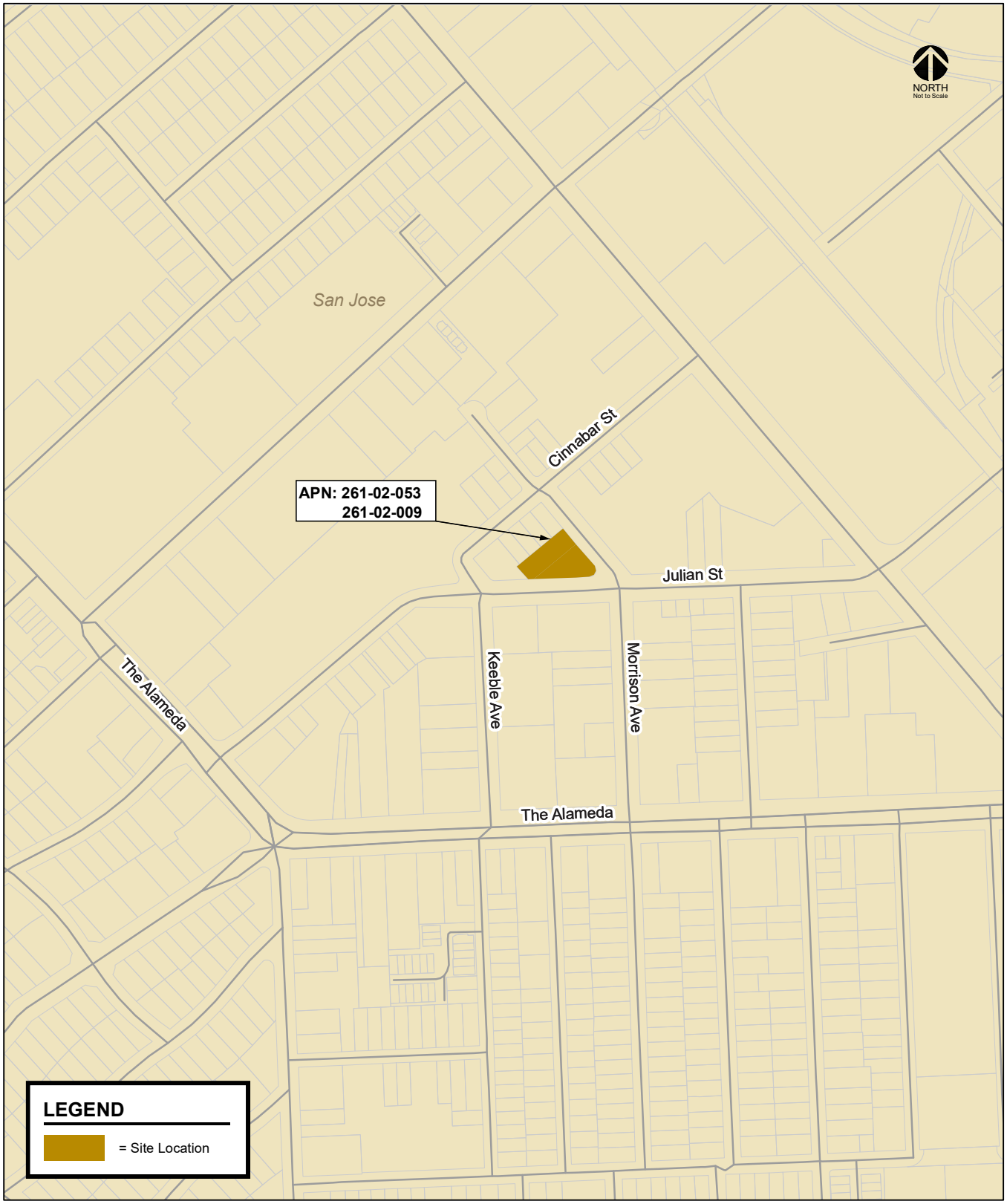


Figure 6
Location of GPA Site 5: GP22-007/C22-022 (Presentation High)

Figure 7
Location of GPA Site 6: GP22-008/C22-023 (Julian)



3. Analysis Methodology and Impact Criteria

This chapter describes the travel demand forecasting modeling methodology used for the analysis and the methods used to determine the traffic conditions for the study scenarios described in the previous chapter. It includes descriptions of the measures of effectiveness (MOE) and the applicable impact criteria for GP transportation analysis.

Travel Demand Forecasting Model

The citywide travel demand forecasting (TDF) model was prepared as part of the Envision San José 2040 GP. The TDF model was developed to provide improved citywide travel demand forecasting as part of continued planning efforts to address transportation infrastructure needs and to assist in the update of the City's GP. The model was developed from the VTA's countywide travel demand model, based on Metropolitan Transportation Commission (MTC's) BAYCAST trip-based regional model. The VTA model contains all cities and counties within the model's extent roughly bounded by southern Monterey County, eastern San Joaquin County, northern Sonoma County, and the Pacific Ocean. The San José model is a sub-area model of the VTA model – it maintains the general inputs (roadway network, land use, trip generation rates, etc.), structure, and process as the VTA model, but with refinement within the City of San José. This allows regional travel patterns and behavior to be accounted for in the focused area of San José, which will become more important with the recent legislative requirements associated with greenhouse gas quantification and impacts.

The VTA and San José models both include four elements traditionally associated with models of this kind. These elements include trip generation, trip distribution, mode choice, and traffic assignment.

- **Trip Generation.** Trip generation involves estimating the number of trips that would occur with the proposed GP land uses. The City's TDF model includes trip generation formulas based on the MTC regional travel demand model. Trip generation is estimated based on the type and amount of specific land uses within each traffic analysis zone (TAZ). The TDF model produces trip estimates in person trips (as opposed to vehicle trips, which are typically used in near-term transportation analyses).
- **Trip Distribution.** Trip distribution involves distributing the trips to various internal destinations and external gateways. The model pairs trip origins and trip destinations (starting and ending points) for each person trip based on the type of trip (e.g., home-to-work, home-to-school, etc.) and the distance a person is willing to travel for that purpose. The distance a person is willing to

travel is determined by a gravity model, which is analogous to Newton's law of gravity. In a gravity model, estimates are made about how many trips occur between two locations where the interaction between those two locations diminishes with increasing distance, time, and cost between them.

- **Mode Choice.** Mode choice, as assigned by the model, determines which mode of transport a person will choose for each trip, based on the availability of a vehicle, the trip distance, and the trip purpose.
- **Traffic Assignment.** Traffic assignment involves determining which route to take to travel between the trip's origin and destination. The model assigns the trips to the roadway network to minimize travel time between the start and endpoints.

Subsequent trip distribution, assignment, and mode choice iterations are completed by the model to account for roadway congestion. These iterations continue under equilibrium traffic conditions until the optimal trip assignment is reached.

Transportation Network and Traffic Analysis Zones (TAZs)

The fundamental structure of the model includes a computer-readable representation of the roadway system (highway network) that defines roadway segments (links) identified by endpoints (nodes). Each roadway link is further represented by key characteristics (link attributes) that describe the length, travel speeds, and vehicular capacity of the roadway segment. Small geographic areas (TAZs) are used to quantify the planned land use activity throughout the City's planning area. The boundaries of these small geographic areas are typically defined by the modeled roadway system, as well as natural and man-made barriers that have an effect on traffic access to the modeled network. Transit systems are represented in the model by transit networks that are also identifiable by links and nodes. Unlike the roadway network, the key link attributes of a transit link are operating speed and headways – elapsed time between successive transit services. Transit stops and "dwelling times" (the time allowed for passengers embarking and disembarking transit vehicles) are described as transit node attributes. Transit networks are further grouped by type of transit (rail versus bus) and operator (VTA bus versus AC Transit bus). Transit accessibility for each TAZ is evaluated by proximity to transit stops or stations, and the connectivity of transit lines to destinations.

The socio-economic data for each TAZ in the model includes information about the number of households (stratified by household income and structure type), population, average income, population age distribution, and employment (stratified by groupings of Standard Industrial Codes). The worker-per-household ratios and auto ownership within a TAZ are calculated based on these factors and the types and densities of residences. The model projects trip generation rates and the traffic attributable to residents and resident workers, categorized by trip purposes, using set trip generation formulas that are based on the MTC regional travel demand model. The land use data and roadway network used for the GP base year reflect land use development and roadway projects completed as of approximately mid-2015.

Traffic Assignment

Travel times within and between TAZs (intra-zonal, inter-zonal and terminal times) are developed from the network being modeled. Travel times within zones (intra-zonal travel times) are derived for each zone based on half its average travel time to the nearest three adjacent zones. Time to walk to and from the trip maker's car (terminal times) is also added. The projected daily trips are distributed using a standard gravity model and friction factors calibrated for the modeling region, which presently consists of 13 counties.

The City of San José TDF model can estimate up to 7 modes of transportation:

- auto drive-alone
- auto carpool with two persons
- auto carpool with three+ persons
- rail transit
- bus transit
- bicycle
- walk

Before the traffic is assigned to the roadway networks, time-of-day factors and directionality factors are applied to automobile trips occurring during:

- AM peak hour
- AM 4-hour peak
- PM peak hour
- PM 4-hour peak
- mid-day 6-hour
- mid-night 10-hour periods

The assignment of the trip tables to the roadway network uses a route selection procedure based on minimum travel time paths (as opposed to minimum travel distance paths) between TAZs and is done using a capacity-constrained user equilibrium-seeking process. This capacity-constrained traffic assignment process enables the model to reflect the diversion of traffic around congested areas of the overall street system. High Occupancy Vehicle (HOV) lanes on freeways, expressways, and on-ramps are specifically dealt with in the model network, with access restricted to auto-shared-ride mode trips only, similar to real-world operations of roadway facilities with HOV lanes.

Transit Mode Share

Transit use is modeled for peak and non-peak periods based on computed transit levels of services (speeds and wait times). Based on the conditions that influence transit speeds and wait times (such as traffic congestion), transit use numbers are modified to reflect the likelihood of transit use, based on the constraints to the system. This feedback loop is a modern enhancement in the model to address the dynamics of transit ridership related to the expansion or contraction of roadway capacities.

In addition to providing projected peak hour and peak period volumes and ratios comparing projected traffic volume to available roadway capacity (V/C ratios) on each roadway segment, the model provides information on vehicle miles and vehicle hours of travel by facility type (freeway, expressways, arterial streets, etc.). These informational reports can be used to compare projected conditions under the adopted GP with the impacts of proposed land use amendments. The City's TDF model is intended for use as a "macro analysis tool" to project probable future conditions. Therefore, the TDF model is best used when comparing alternative future scenarios and is not designed to answer "microanalysis level" operational questions typically address in detailed project-specific TAs.

General Plan Transportation Network

The GP TDF model includes all major transportation infrastructure identified in the Envision San José 2040 Land Use/Transportation Diagram, including planned infrastructure that is not yet built and/or funded.

Measures of Effectiveness

This analysis addresses the long-range impacts of the proposed GP land use adjustments on the citywide transportation system by applying measures of effectiveness (MOEs) developed for the Envision San José 2040 GP. The results of the analysis for the proposed land use adjustments are compared to the current GP to determine if the proposed adjustments would result in any new or substantially more severe transportation impacts. The long-range analysis includes analysis of the following MOEs:

- **VMT per Service Population.** VMT per service population is a measure of the daily VMT divided by the number of residents and employees within the City of San José. VMT per service population (residents + employees) is used for the analysis as opposed to VMT per capita (residents only), since per service population more accurately captures the effects of land use on VMT. The City not only has residents that travel to and from jobs but also attracts regional employees. VMT is calculated based on the number of vehicles multiplied by the distance traveled by each vehicle in miles.
- **Journey-to-Work Mode Share (Drive-Alone %).** Mode share is the distribution of all daily work trips by travel mode, including the following categories: drive-alone, carpool with two persons, carpool with three persons or more, transit (rail and bus), bike, and walk trips.
- **Average Travel Speeds within the City's Transit Priority Corridors.** Average travel speed for all vehicles (transit and non-transit vehicles) in the City's 14 transit corridors is calculated for the AM peak hour based on the segment distance dividing the vehicle travel time. A transit corridor is a segment of roadway identified as a Grand Boulevard in the Envision San José 2040 GP Land Use/Transportation Diagram. Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for Valley Transportation Authority (VTA) light-rail transit (LRT), bus rapid transit (BRT), local buses, and other public transit vehicles. Although transit services are found on other street types throughout the City, transit has the utmost priority on Grand Boulevards.

Significance Impact Criteria

The City of San José adopted policies and goals in Envision San José 2040 to reduce the drive-alone mode share to no more than 40 percent of all daily commute trips and to reduce the VMT per service population by 40 percent from existing (year 2015) conditions. To meet these goals by the GP horizon year and to satisfy CEQA requirements, the City developed a set of MOEs and associated significance thresholds to evaluate long-range transportation impacts resulting from land use adjustments. Table 4 summarizes the significance thresholds associated with vehicular modes of transportation as defined in the City of San José Transportation Analysis Handbook (Thresholds of Significance for General Plan Amendments, Table 11) for the evaluation of long-range transportation impacts resulting from proposed land use adjustments and used in this analysis.

In addition to the MOEs described above, the effects of the proposed land use adjustments on transit, bicycle, and pedestrian facilities were evaluated. A significant long-range transportation impact would occur if the adjustments would:

- Disrupt existing, or interfere with, planned transit services or facilities;
- Disrupt existing, or interfere with, planned bicycle facilities;
- Conflict or create inconsistencies with adopted bicycle plans, guidelines, policies, or standards;
- Not provide secure and safe bicycle parking in adequate proportion to anticipated demand;
- Disrupt existing, or interfere with, planned pedestrian facilities;

Table 4
Thresholds of Significance for GPAs

Performance Metrics	Significance Thresholds
VMT per Service Population	Any increase over current 2040 General Plan conditions
Journey-to-Work Mode Share	Any increase in journey-to-work drive alone mode share over current 2040 General Plan conditions
Transit Corridor Travel Speeds	Decrease in average travel speed on a transit corridor below current 2040 General Plan conditions in the AM peak one-hour period when: 1. The average speed drops below 15 mph or decreases by 25% or more, OR 2. The average speed drops by one mph or more for a transit corridor with average speed below 15 mph under current 2040 General Plan conditions.
Source: City of San Jose Transportation Analysis Handbook, Table 11 (April 2020)	

- Not provide accessible pedestrian facilities that meet current ADA best practices; or
- Create inconsistencies with adopted pedestrian plans, guidelines, policies, or standards.

4. Cumulative General Plan Long-Range Transportation Analysis

The long-range cumulative transportation impacts resulting from the proposed 2022 GPAs were determined based on the MOEs significance thresholds for vehicle modes of travel and the impact criteria for transit, bicycle, and pedestrian described in Chapter 3. The results of the GPA long-range analysis are described below.

VMT Per Service Population

The San José GP TDF model was used to project daily VMT per service population, where service population is defined as the number of residents plus the number of employees citywide. This approach focuses on the VMT generated by the new population and employment growth. VMT is calculated as the number of vehicle trips multiplied by the length of the trips in miles.

Since the City of San José not only has residents that travel to and from jobs within the City but also attracts regional employees, the daily VMT includes some trips traveling outside of the City limits but with origins or destinations within San José. For this reason, the following trip types were included in the VMT calculation:

- Internal-Internal – All daily trips are made entirely within the San José City limits.
- One-half of Internal-External – One-half of the daily trips with an origin located within the San José City limits and a destination located outside of San José.
- One-half of External-Internal – One-half of the daily trips with an origin located outside the San José City limits and a destination located within San José.

Trips that travel through San José to and from other locations (External-External) are not included in the calculation of VMT. As shown in Table 4 in Chapter 3, any increase in VMT per service population over the current GP conditions due to the proposed land use amendments is considered a significant impact.

As shown in Table 5, the citywide daily VMT would decrease slightly but the VMT per service population would remain unchanged due to the proposed land use amendments when compared to the current GP. The reduction in citywide daily VMT is due to (1) no change to the total number of jobs and households citywide as a result of the GPAs (only shifting of households and jobs would occur) and (2) the addition of households to areas with more jobs and transit options. Therefore, cumulatively, the

Table 5
Daily VMT Per Service Population

	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus Cumulative GPAs
Citywide Daily VMT	17,505,088	27,674,301	27,673,481
Citywide Service Population	1,392,946	2,054,758	2,054,758
- Total Households	319,870	429,350	429,350
- Total Residents	1,016,043	1,303,108	1,303,108
- Total Jobs	376,903	751,650	751,650
Daily VMT Per Service Population	12.57	13.47	13.47
Increase in VMT/Service Population over General Plan Conditions			***0.00***
Significant Impact?			**No**

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPA = General Plan Amendment
Service Population = Residents + Jobs
Source: City of San Jose Travel Forecasting Model runs completed August 2022
by Hexagon Transportation Consultants, Inc.

proposed 2022 GPAs would result in a less than significant impact on citywide daily VMT per service population.

Findings: Compared to the current GP, the proposed land use adjustments would not result in an increase in citywide VMT per service population. Therefore, cumulatively, the proposed 2022 GPAs would result in a less than significant impact on citywide daily VMT per service population. It is important to note that the VMT per service population is based on raw model output and does not reflect the implementation of adopted GP policies and goals that would further reduce VMT by increasing the use of non-auto modes of travel.

Journey-to-Work Mode Share

The San José GP TDF model was used to calculate citywide journey-to-work mode share percentages. Journey-to-work mode share is the distribution of all daily work trips by travel mode, including drive-alone, carpool with two persons, carpool with three persons or more, transit (rail and bus), bike, and walk trips. Although work trips may occur at any time of the day, most of the work trips occur during typical peak commute periods (6:00 – 10:00 AM and 3:00 – 7:00 PM). As shown in Table 4 in Chapter 3, any increase in the journey-to-work drive-alone mode share percentage over the current GP conditions due to the proposed land use amendments is considered a significant impact.

Table 6 summarizes the citywide journey-to-work mode share analysis results. When compared to the current GP, the percentage of journey-to-work drive-alone trips would not change as a result of the proposed GPAs. Approximately 71.65% of the commuters would drive alone to and from work under both the current GP and the current GP with the proposed GPAs. Therefore, cumulatively, the proposed 2022 GPAs would result in a less than significant impact on citywide journey-to-work drive-alone mode share.

Table 6
Journey-to-Work Mode Share

Mode	Base Year (2015)		2040 General Plan (Baseline)		2040 General Plan Plus Cumulative GPAs	
	Trips	%	Trips	%	Trips	%
Drive-Alone	753,264	79.69%	1,091,324	71.65%	1,091,414	71.65%
Carpool 2	85,496	9.04%	137,868	9.05%	137,879	9.05%
Carpool 3+	28,526	3.02%	54,530	3.58%	54,499	3.58%
Transit	48,181	5.10%	183,914	12.07%	183,836	12.07%
Bicycle	14,120	1.49%	26,089	1.71%	26,088	1.71%
Walk	15,666	1.66%	29,460	1.94%	29,458	1.94%
Increase in Drive Alone Percentage over General Plan Conditions						0.00%
Significant Impact?						**No**

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPA = General Plan Amendment
Source: City of San Jose Travel Forecasting Model runs completed August 2022
by Hexagon Transportation Consultants, Inc.

Findings: The proposed land use adjustments will not result in an increase in drive-alone percentage when compared to the current GP conditions. Therefore, cumulatively, the proposed 2022 GPAs would result in a less than significant impact on citywide journey-to-work mode share.

Average Vehicle Speeds in Transit Priority Corridors

The San José GP TDF model was used to calculate the average vehicle travel speeds during the AM peak hour for the City's 14 transit corridors that were evaluated in the Envision San José 2040 GP TIA. A transit corridor is a segment of roadway identified as a Grand Boulevard in the Envision San José 2040 GP Land Use/Transportation Diagram. Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for VTA's LRT, BRT, local buses, and other public transit vehicles. The travel speeds are calculated by dividing the segment distance by the vehicle travel time. As shown in Table 4 in Chapter 3, land use amendments that result in a decrease in average travel speed on a transit corridor in the AM peak one-hour period when the average speed drops below 15 miles per hour (mph) or decreases by 25 percent (%) or more, or the average speed drops by one mph or more for a transit corridor with an average speed below 15 mph when compared to the current GP conditions is considered a significant impact.

Table 7 presents the average vehicle speeds on the City's 14 transit priority corridors (i.e., Grand Boulevard segments) during the AM peak hour of traffic. When compared to travel speeds under current GP conditions, the change in traffic resulting from the proposed land use amendments would have minimal effect on the travel speeds in the transit corridors. The TDF model estimates that travel speeds would improve slightly by 0.1 mph (a change of 0.6% or less) on three of the study corridors and remain unchanged for the remaining study corridors when compared to the current GP. Therefore, cumulatively, the proposed 2022 GPAs would result in a less than significant impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Table 7
AM Peak-Hour Vehicle Speeds for Transit Priority Corridors

Transit Priority Corridor	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus Cumulative GPAs		
	Speed (mph)	Speed (mph)	Speed (mph)	% Change (GPplusCumGPAs - GP) / GP	Change (GPplusCumGPAs - GP)
2nd Street from San Carlos Street to St. James Street	16.6	15.3	15.3	0.0%	0.0
Alum Rock Avenue from Capitol Avenue to US 101	21.3	16.5	16.5	0.0%	0.0
Camden Avenue from SR 17 to Meridian Avenue	23.1	16.4	16.4	0.0%	0.0
Capitol Avenue from South Milpitas Boulevard to Capitol Expressway	27.1	22.5	22.5	0.0%	0.0
Capitol Expressway from Capitol Avenue to Meridian Avenue	33.0	26.6	26.6	0.0%	0.0
East Santa Clara Street from US 101 to Delmas Avenue	20.4	15.8	15.9	0.6%	0.1
Meridian Avenue from Park Avenue to Blossom Hill Road	24.9	20.0	20.0	0.0%	0.0
Monterey Road from Keyes Street to Metcalf Road	27.4	19.5	19.6	0.5%	0.1
North 1st Street from SR 237 to Keyes Street	21.3	13.7	13.7	0.0%	0.0
San Carlos Street from Bascom Avenue to SR 87	24.8	19.8	19.9	0.5%	0.1
Stevens Creek Boulevard from Bascom Avenue to Tantau Avenue	24.3	18.8	18.8	0.0%	0.0
Tasman Drive from Lick Mill Boulevard to McCarthy Boulevard	22.7	13.9	13.9	0.0%	0.0
The Alameda from Alameda Way to Delmas Avenue	20.5	13.9	13.9	0.0%	0.0
West San Carlos Street from SR 87 to 2nd Street	20.0	18.7	18.7	0.0%	0.0

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPA = General Plan Amendment
Source: City of San Jose Travel Forecasting Model runs completed August 2022 by Hexagon Transportation Consultants, Inc.

Findings: The proposed land use adjustments would not result in a decrease in travel speeds greater than one mph or 25 percent on any of the 14 transit priority corridors when compared to current GP conditions. Therefore, cumulatively, the proposed 2022 GPAs would result in a less than significant impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Impacts on Transit, Bicycle, and Pedestrian Circulation

Transit Services or Facilities

Planned transit services and facilities include additional rail service via the future Bay Area Rapid Transit (BART) extension, light rail transit (LRT) extensions, new bus rapid transit (BRT) services, and the proposed California High-Speed Rail (HSR) project. The proposed GPA's land use adjustments would not result in a change to the existing and planned roadway network that would result in an adverse effect on existing or planned transit facilities. Therefore, the proposed 2022 GPA's land use adjustments would not substantially disrupt existing or interfere with planned transit services or facilities.

Bicycle Facilities

The adopted Envision San José 2040 GP supports the goals outlined in the City's Better Bike Plan 2025 and contains policies to encourage bicycle trips (Policies TR-1.1, TR-1.2, TR-1.4 through TR-1.9, TR 2.1 through TR 2.11, TR-7.1, TN-1.1 through TN-1.5, TN-2.1 through TN-2.7, and TN-3.1 through 3.6; Implementing Actions TR-1.12 through TR-1.15, TR-2.12 through TR-2.21, TR-7.2, TR-7.3, TN-1.6, TN-2.8 through 2.10, and TN-3.7; Performance Measures TN-2.11, TN-2.12). The proposed GPA's land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned bicycle facilities. Therefore, the proposed 2022 GPA's land use adjustments would not substantially disrupt existing or interfere with planned bicycle facilities; conflict or create inconsistencies with adopted bicycle plans, guidelines, policies, or standards; and provide insecure and unsafe bicycle parking in adequate proportion to anticipated demand.

Pedestrian Facilities

The adopted Envision San José 2040 GP contains goals and policies (Policies TR-1.1, TR-1.2, TR-1.4 through TR-1.9, TR-2.1 through TR-2.11, TR-7.1, TN-1.1 through TN-1.5, TN-2.1 through TN-2.7, and TN-3.1 through 3.6; Implementing Actions TR-1.12 through TR-1.15, TR-2.12 through TR-2.21, TR-7.2, TR-7.3, TN-1.6, TN-2.8 through 2.10, and TN-3.7; Performance Measures TN-2.11, TN-2.12) to improve the pedestrian walking environment, increase pedestrian safety, and create a land use context to support non-motorized travel. The proposed GPA's land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned pedestrian facilities. Therefore, the proposed 2022 GPA's land use adjustments would not substantially disrupt existing or interfere with planned pedestrian facilities; create inconsistencies with adopted pedestrian plans, guidelines, policies, or standards; and provide accessible pedestrian facilities that would not meet current ADA best practices.

5. Evergreen Site-Specific GPA Long-Range Transportation Analysis

This report presents the results of the long-range site-specific transportation analysis for the proposed Evergreen General Plan Amendment (GP21-015/PDC21-036/PD21-020). The purpose of the GPA TA is to assess the long-range impacts of the proposed land use amendment to the Evergreen site on the citywide transportation system. The potential transportation impacts of the project were evaluated in accordance with the guidelines and thresholds set forth by the Envision San José 2040 General Plan (GP). In addition, a near-term transportation analysis in conjunction with any future development permit applications consistent with the Envision San José 2040 GP will be required once a development application is submitted to the City.

General Plan Amendment Site Description

The 0.54-acre site is located along the north side of Classico Avenue at Evergreen Village Square. Figure 8 shows the location of the site. The adopted GP land use designation for the site is Open Space, Parklands, and Habitat, which does not allow any development on the site. The proposed amendment involves changing the adopted land use to Mixed-Use Neighborhood, which includes a density of 25 DU/AC and FAR of up to 0.35. The proposed land use change for the development of the currently vacant site would be consistent with the immediate and surrounding land uses.

The GPA TA guidelines, as described in the City of San José Transportation Analysis Handbook dated April 2020, under the Methodology for Transportation Network Modeling & Analysis section, provide trip thresholds (see Table 1 in Chapter 1) for GP land use amendments that require a site-specific GPA analysis. The project site is located within the Evergreen special subarea, proposes a conversion of non-residential to residential land uses, and is subject to a no net increase in PM peak-hour trip threshold. The proposed amendment would result in 10 additional households and 27 additional jobs on the site. Based on the TDF modeling results, the increase in households and jobs would result in a net increase in PM peak-hour trips to the project site (see Table 8). Therefore, the preparation of a site-specific GPA TA for the proposed land use amendment on the project site is required. The GPA does not propose any changes to the city's major transportation system and the transportation policies that were adopted in the Envision San José 2040 GP.

Figure 8
Evergreen GPA – Site Location

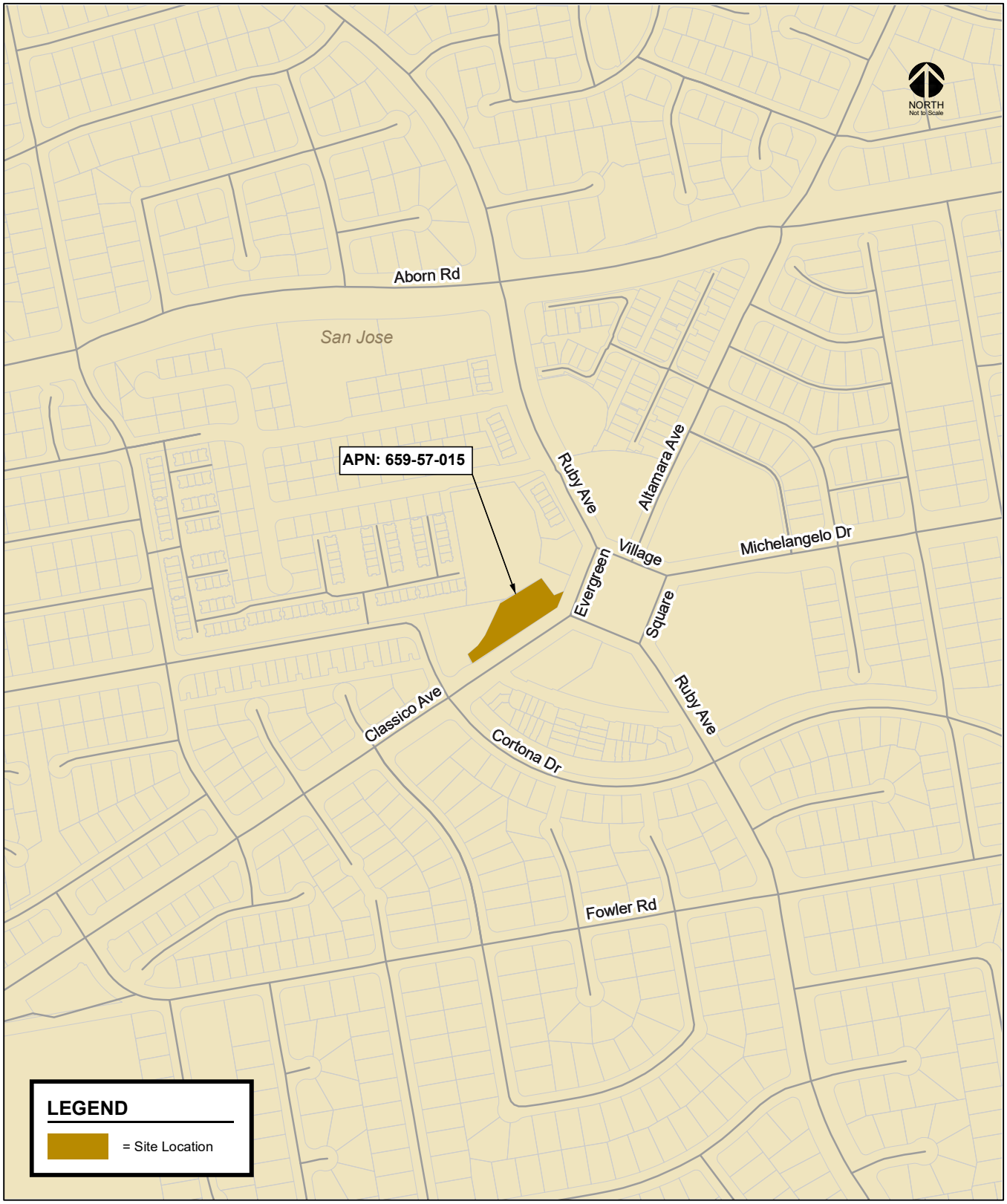


Table 8
Evergreen GPA – Changes in Households, Jobs, and Peak-Hour Trips

Site Number	Site Name	2040 General Plan (Baseline)[1]		2040 General Plan Plus Evergreen GPA[2]		Net Land Use Change		Net Peak-Hour Trip Change	
		TOTHH	TEMP	TOTHH	TEMP	TOTHH	TEMP	AM	PM
3	GP21-015/PDC21-036/PD21-020 (Evergreen)	987	169	997	196	10	27	26	**37**

Notes: TOTHH = total number of households; TEMP = total number of jobs.
[1]Total number of households and jobs under the adopted Envision San Jose 2040 General Plan (GP). The buildout of the 2040 GP represents baseline conditions.
[2]Total number of households and jobs as proposed by the GP Amendment.
Outlined indicates GPA that results in an increase in PM peak hour trips greater than threshold that requires site-specific GPA transportation analysis.
Source: City of San Jose Planning Department, August 2022.
City of San Jose Travel Forecasting Model runs completed August 2022 by Hexagon Transportation Consultants, Inc.

Scope of the Study

The GPA TA includes the evaluation of the potential for the proposed land use amendment to result in increased VMT, increased traffic volume on specified roadway segments, impacts to travel speeds on transit priority corridors, and impacts on the pedestrian, bicycle, and transit facilities. Impacts are evaluated based on the same measures of effectiveness (MOEs) and significance criteria utilized in the Envision San José 2040 GP TIA and described in Chapter 3 of this report. Traffic conditions were evaluated for the following traffic scenarios using the City of San José's Traffic Demand Forecasting (TDF) model:

- **Projected Year 2015 Conditions:** The Projected Year 2015 Conditions represent a projection of transportation conditions in 2015 using the City's GP TDF model. The roadway network also reflects the Year 2015 roadway network and transportation system.
- **Current 2040 General Plan Conditions:** Future traffic due to the current GP land uses is added to regional growth that can be reasonably expected to occur by 2040. Current 2040 GP conditions include the current roadway network as well as all transportation system improvements as identified in the current GP.
- **Proposed 2040 General Plan plus Evergreen GPA Conditions:** Current 2040 GP conditions with the proposed land use amendment for the Evergreen site. Transportation conditions for the Proposed 2040 GP plus Evergreen GPA Conditions were evaluated relative to the currently adopted 2040 GP Conditions to determine any long-range traffic impacts.

Existing Conditions

This section describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities.

Existing Roadway Network

Regional access to the project site is provided by US 101 and I-680. Local access to the project site is provided by Aborn Road, San Felipe Road, Classico Avenue/Fowler Road, Cortona Drive, Ruby Avenue, and Evergreen Village Square. The freeways and local roadways are described below.

US 101 is an eight-lane freeway (three mixed-flow lanes and one HOV lane in each direction) in the vicinity of the project area. US 101 extends northward through San Francisco and southward through Gilroy. Access to the project site is provided via its interchange with Capitol Expressway.

I-680 is an eight-lane freeway providing regional access between San Ramon Valley and San Jose. It extends in a north-south direction from its junction with I-280 and US 101 near Downtown San Jose through the East Bay to its junction with I-80 in Fairfield. Access to the project site is provided via its interchange with Capitol Expressway.

Aborn Road is a four-lane east-west roadway, designated as a City Connector Street within the project vicinity in the General Plan, that extends from King Road in the west to Gurdwara Avenue in the east. Between King Road and Capitol Expressway, Aborn Road has four lanes. East of Capitol Expressway, it widens to a six-lane cross-section before narrowing again east of Mosher Drive. Aborn Road has sidewalks on both sides of the street, bike lanes, and a posted speed limit of 40 mph in the project vicinity. Aborn Road provides access to the project site via its intersection with Ruby Avenue.

San Felipe Road is a north-south roadway, designated as a City Connector Street within the project vicinity in the General Plan, that extends throughout the eastern portion of San Jose, including the Evergreen area. San Felipe Road transitions into White Road north of Aborn Road. San Felipe Road has four lanes, limited intermittent sidewalks, bike lanes, and a posted speed limit of 45 mph in the project vicinity. San Felipe Road provides access to the project site via its intersections with Aborn Road and Fowler Road.

Classico Avenue/Fowler Road is a two-lane east-west residential roadway that extends between Evergreen Village Square and San Felipe Road. Classico Avenue transitions into Fowler Road at the Evergreen Elementary School's boundary. On-street parking is prohibited on both sides of the street with the exception of a short segment between Cortona Drive and Evergreen Village Square, where angled on-street parking is allowed on both sides of the street. Classico Avenue/Fowler Road has a posted speed limit of 25 mph without any bike lanes, but sidewalks are provided on both sides of the street. Classico Avenue runs along the project site's southern boundary and would provide direct access to the project site.

Cortona Drive is a two-lane east-west undivided residential roadway that extends from Altia Avenue in the east to just north of Classico Avenue in the west, where it transitions into Silverland Drive. Cortona Drive has a posted speed limit of 25 mph without any bike lanes, but sidewalks are provided and on-street parking is allowed on both sides of the street. Cortona Drive provides access to the project site via its intersection with Classico Avenue.

Ruby Avenue is a two-lane north-south roadway, designated as a Local Connector Street south of Aborn Road and as a City Connector Street north of Aborn Road in the General Plan, that extends from Falls Creek Drive in the south to Kohler Avenue in the north, where it transitions into Mount Pleasant Road. North of Aborn Road, Ruby Avenue has a center two-way left-turn lane, bike lanes, and a 35-mph posted speed limit. South of Aborn Road, Ruby Avenue has a posted speed limit of 25 mph. Sidewalks are provided on both sides of the street along the entire roadway. Access to the project is provided via its intersection with Evergreen Village Square.

Evergreen Village Square is a traffic circle located adjacent to the project site that provides connections between Classico Avenue, Ruby Avenue, Michelangelo Drive, and Altamara Avenue. Angled on-street parking is provided along the traffic circle to serve the retail uses in the area.

Existing Pedestrian Facilities

Pedestrian facilities in the study area shown in Figure 9 consist of sidewalks along all the surrounding streets, including all project frontages. Crosswalks and pedestrian signal heads are located at all signalized intersections within the project area. The majority of the crosswalks at signalized intersections in the vicinity of the project site consist of crosswalks and countdown signal heads that enhance pedestrian visibility and safety while crossing the intersections.

Sidewalks in the project area are wide and provide an attractive and continuous pedestrian network between the site and local destinations, such as bus stops along Ruby Avenue and retail uses at Evergreen Village Square.

ADA-compliant ramps are located at most crosswalks in the vicinity of the project site. However, ADA-compliant ramps are missing at the following locations in the project vicinity:

- Evergreen Village Square – northwest and southwest corners and the fountain sides of the northeast and southeast corners.
- Altamara Avenue/Aborn Road intersection – southwest and southeast corners

Overall, the existing sidewalks and pedestrian facilities provide good pedestrian connectivity and safe routes to the surrounding pedestrian destinations.

Existing Bicycle Facilities

Class I Bikeway (Trail or Path) is an off-street trail or path with exclusive right-of-way for non-motorized transportation used for commuting as well as recreation. Class I bicycle facilities are provided at the following locations within the project area:

- Fowler Creek Trail, between Classico Avenue and Fowler Creek Park
- Paseo Chaboya, between Cortona Drive and Falls Creek Drive
- Paseo Dante, between Magnum Drive and Etruscan Drive
- Park Trail, between Fowler Creek Park and Avignon Lane

Class II Bikeway (Bike Lane) is a striped bike lane on a roadway that is marked by signage and pavement markings. Class II bicycle facilities are provided along the following roadways within the project area:

- Aborn Road, between Silver Creek Road and Gurdwara Avenue
- San Felipe Road/White Road, along its entire segment in the project vicinity
- Ruby Avenue, along its entire length north of Aborn Road
- Gurdwara Avenue, along its entire length
- Delta Road, along its entire length

The existing bicycle facilities are shown in Figure 10.

Existing Transit Services

Existing transit services in the project vicinity are provided by two local bus routes from the Santa Clara Valley Transportation Authority (VTA). The bus routes are described below and shown in Figure 11.

Local Route 31 runs between Evergreen Valley College and Eastridge Transit Center and operates on weekdays between 6:30 AM and 10:30 PM with approximately 30-minute headways during the commute periods. The nearest bus stops to the project site are located near the San Felipe Road/Fowler Road intersection.

Local Route 39 runs between the Villages Neighborhood in Evergreen and Eastridge Transit Center and operates on weekdays between 6:30 AM and 7:00 PM with approximately 60-minute headways during the commute periods. The nearest bus stops to the project site are located along Ruby Avenue, just south and north of Evergreen Village Square.

Figure 9
Evergreen GPA – Existing Pedestrian Facilities

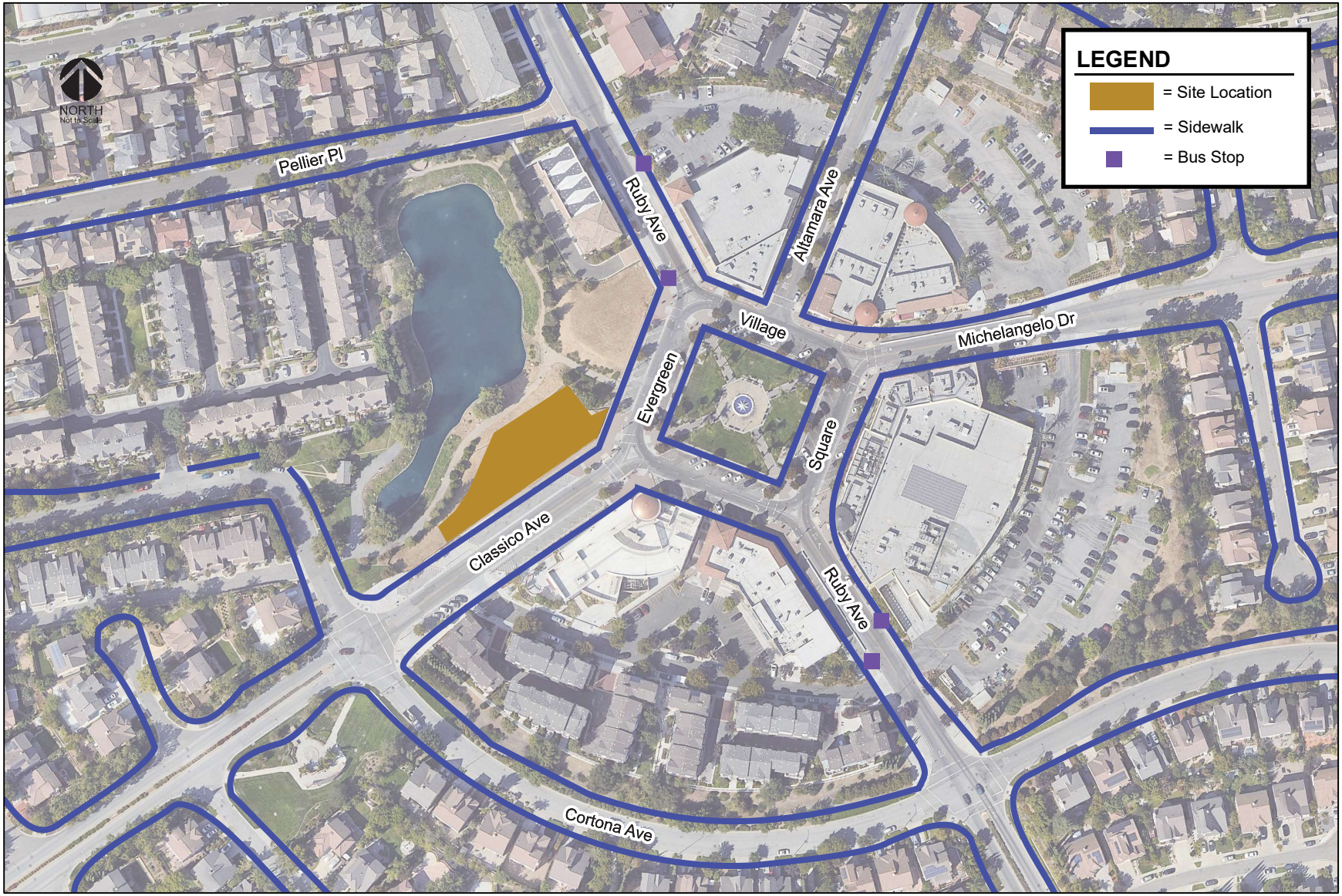


Figure 10
Evergreen GPA – Existing Bicycle Facilities

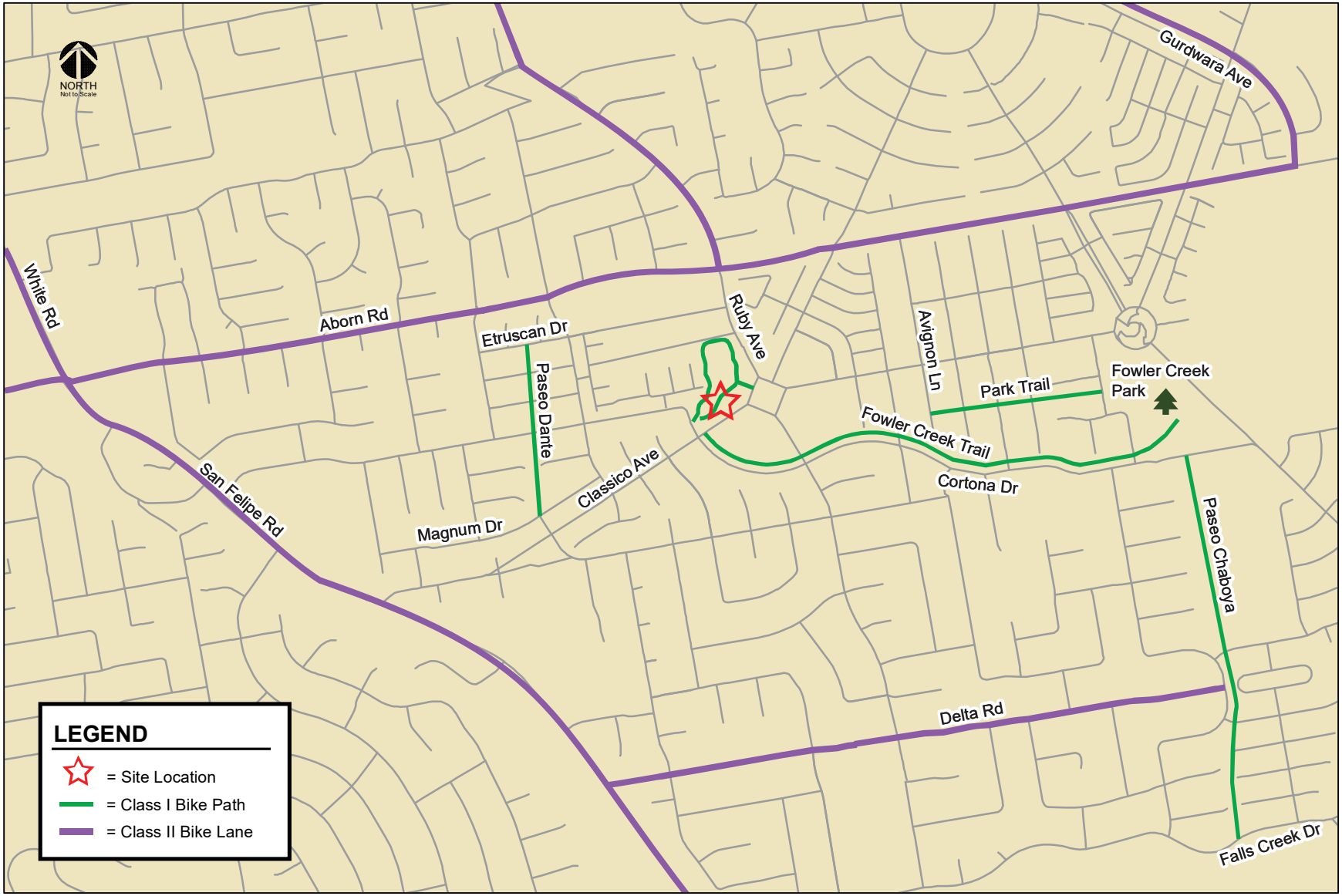


Figure 11
Evergreen GPA – Existing Transit Services

General Plan Amendment Site-Specific Long-Range Transportation Analysis

The site-specific long-range transportation impacts resulting from the proposed Evergreen GPA were determined based on the MOEs and associated significance thresholds described in Chapter 3. The results of the site-specific GPA long-range analysis are described below.

VMT Per Service Population

The San José GP TDF model was used to project daily VMT per service population, where service population is defined as the number of residents plus the number of employees citywide. This approach focuses on the VMT generated by the new population and employment growth. VMT is calculated as the number of vehicle trips multiplied by the length of the trips in miles. As shown in Table 4 in Chapter 3, any increase in VMT per service population over the current GP conditions due to the proposed land use amendment is considered a significant impact.

As shown in Table 9, the citywide daily VMT would increase slightly due to the proposed land use amendment when compared to the current GP. However, the VMT per service population would not change when compared to the current GP. The small increase in daily VMT is due to the shifting of land use/growth within different parts of the City. However, the increase in daily VMT is too small to have a measurable effect on the citywide VMT per service population. Therefore, the proposed Evergreen GPA would result in a less than significant impact on the citywide daily VMT per service population.

Table 9
Evergreen GPA – Daily VMT Per Service Population

	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus Evergreen GPA
Citywide Daily VMT	17,505,088	27,674,301	27,675,328
Citywide Service Population	1,392,946	2,054,758	2,054,758
- Total Households	319,870	429,350	429,350
- Total Residents	1,016,043	1,303,108	1,303,108
- Total Jobs	376,903	751,650	751,650
Daily VMT Per Service Population	12.57	13.47	13.47
Increase in VMT/Service Population over General Plan Conditions			***0.00***
Significant Impact?			**No**

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPA = General Plan Amendment
Service Population = Residents + Jobs
Source: City of San Jose Travel Forecasting Model runs completed August 2022
by Hexagon Transportation Consultants, Inc.

Journey-to-Work Mode Share

The San José GP TDF model was used to calculate journey-to-work citywide mode share percentages. Journey to work mode share is the distribution of all daily work trips by travel mode. The modes of travel included in the TDF model are drive-alone, carpool with two persons, carpool with three persons or more, transit (rail and bus), bike, and walk trips. Although work trips may occur at any time of the

day, most of the work trips occur during typical peak commute periods (6:00 – 10:00 AM and 3:00 – 7:00 PM). As shown in Table 4 in Chapter 3, any increase in the journey-to-work drive-alone mode share percentage over the current GP conditions due to the proposed land use amendment is considered a significant impact.

Table 10 summarizes the citywide journey-to-work mode share analysis results. When compared to the current GP, the percentage of journey-to-work drive-alone trips would not change as a result of the proposed GPA. Approximately 71.65% of the commuters would drive alone to travel to and from work under both the current GP and the current GP with the proposed GPA. Therefore, the proposed Evergreen GPA would result in a less than significant impact on citywide journey-to-work drive-alone mode share.

Table 10
Evergreen GPA – Journey-to-Work Mode Share

Mode	Base Year (2015)		2040 General Plan (Baseline)		2040 General Plan Plus Evergreen GPA	
	Trips	%	Trips	%	Trips	%
Drive-Alone	753,264	79.69%	1,091,324	71.65%	1,091,449	71.65%
Carpool 2	85,496	9.04%	137,868	9.05%	137,875	9.05%
Carpool 3+	28,526	3.02%	54,530	3.58%	54,487	3.58%
Transit	48,181	5.10%	183,914	12.07%	183,821	12.07%
Bicycle	14,120	1.49%	26,089	1.71%	26,091	1.71%
Walk	15,666	1.66%	29,460	1.94%	29,465	1.94%
Increase in Drive Alone Percentage over General Plan Conditions						0.00%
Significant Impact?						**No**

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPA = General Plan Amendment
Source: City of San Jose Travel Forecasting Model runs completed August 2022
by Hexagon Transportation Consultants, Inc.

Average Vehicle Speeds in Transit Priority Corridors

The San José GP TDF model was used to calculate the average vehicle travel speeds during the AM peak hour for the City's 14 transit corridors that were evaluated in the Envision San José 2040 GP TIA. The analysis of transit priority corridor speeds was completed to assist with the assessment of whether the proposed land use amendment would cause a significant change in travel speeds on the transit priority corridors compared to the current GP. A transit corridor is a roadway segment identified as a Grand Boulevard in the Envision San José 2040 GP Land Use/Transportation Diagram. Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for VTA's LRT, BRT, local buses, and other public transit vehicles. The travel speeds are calculated by dividing the segment distance by the vehicle travel time. As shown in Table 4 in Chapter 3, land use amendments that result in a decrease in average travel speed on a transit corridor in the AM peak one-hour period when the average speed drops below 15 miles per hour (mph) or decreases by 25 percent (%) or more, or the average speed drops by one mph or more for a transit corridor with an average speed below 15 mph when compared to the current GP conditions is considered a significant impact.

Table 11 presents the average vehicle speeds on the City's 14 transit priority corridors (i.e., Grand Boulevard segments) during the AM peak hour of traffic. When compared to the travel speeds under current GP conditions, the change in traffic resulting from the proposed land use amendment would have a minimal effect on the travel speeds in the transit corridors. The TDF model estimates a decrease in travel speeds of 0.1 mph or less (or a change of 0.6 % or less) on two corridors due to the proposed Evergreen GPA. Travel speeds on the remaining corridors would improve slightly or remain unchanged when compared to the current GP. Therefore, the proposed Evergreen GPA would result in a less than significant impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Table 11
Evergreen GPA – AM Peak-Hour Vehicle Speeds for Transit Priority Corridors

Transit Priority Corridor	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus Evergreen GPA		
	Speed (mph)	Speed (mph)	Speed (mph)	% Change (GPplusEvergreenGPA- GP) GP	Change (GPplusEvergreen GPA - GP)
2nd Street from San Carlos Street to St. James Street	16.6	15.3	15.4	0.7%	0.1
Alum Rock Avenue from Capitol Avenue to US 101	21.3	16.5	16.4	-0.6%	-0.1
Camden Avenue from SR 17 to Meridian Avenue	23.1	16.4	16.4	0.0%	0.0
Capitol Avenue from South Milpitas Boulevard to Capitol Expressway	27.1	22.5	22.5	0.0%	0.0
Capitol Expressway from Capitol Avenue to Meridian Avenue	33.0	26.6	26.6	0.0%	0.0
East Santa Clara Street from US 101 to Delmas Avenue	20.4	15.8	15.8	0.0%	0.0
Meridian Avenue from Park Avenue to Blossom Hill Road	24.9	20.0	20.0	0.0%	0.0
Monterey Road from Keyes Street to Metcalf Road	27.4	19.5	19.4	-0.5%	-0.1
North 1st Street from SR 237 to Keyes Street	21.3	13.7	13.7	0.0%	0.0
San Carlos Street from Bascom Avenue to SR 87	24.8	19.8	20.0	1.0%	0.2
Stevens Creek Boulevard from Bascom Avenue to Tantau Avenue	24.3	18.8	18.8	0.0%	0.0
Tasman Drive from Lick Mill Boulevard to McCarthy Boulevard	22.7	13.9	14.0	0.7%	0.1
The Alameda from Alameda Way to Delmas Avenue	20.5	13.9	14.0	0.7%	0.1
West San Carlos Street from SR 87 to 2nd Street	20.0	18.7	18.7	0.0%	0.0

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPA = General Plan Amendment
Source: City of San Jose Travel Forecasting Model runs completed August 2022 by Hexagon Transportation Consultants, Inc.

Impacts on Transit, Bicycle, and Pedestrian Circulation

The Circulation Element of the Envision San José 2040 GP includes a set of balanced, long-range, multimodal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). In combination with land use goals and policies that focus on growth into areas served by transit, these transportation goals and policies are intended to improve multi-modal accessibility to employment,

housing, shopping, entertainment, schools, and parks and create a city where people are less reliant on driving to meet their daily needs. San José's Transportation Goals, Policies, and Actions aim to:

- Establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes.
- Promote San José as a walking- and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Included within the GP are a set of Goals and Policies to support a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles, buses, and trucks. Policies TR-2.1 through TR-2.11 provide specific policies to guide the improvement of walking and bicycling. Such policies include the provision of a continuous bicycle system and the construction of sidewalks and crosswalks. Similarly, the Envision San José 2040 GP includes specific policies to maximize the use of public transit (TR-3.1 through 3.4). As the Evergreen GPA site develops, the project should ensure that it is consistent with the Envision San José 2040 GP to provide safe, accessible, and inter-connected pedestrian and bicycle facilities, and accommodate transit services (i.e., bus dugout) as new roadways are constructed. The impacts on the pedestrian, bicycle, and transit facilities are less-than-significant.

6. Conclusions

This report presents the results of the long-range transportation impact analysis for the proposed City of San José 2022 General Plan Amendments (project). The project consists of amending the currently adopted land use designations of the Envision San José 2040 GP for six sites within the City of San José. The purpose of the GPAs TA is to assess the long-range impacts of the amendments on the citywide transportation system. The analysis includes the evaluation of changes to vehicle miles traveled, changes to the journey-to-work mode share, impacts to travel speeds on transit priority corridors, and impacts on the pedestrian, bicycle, and transit facilities. Impacts were evaluated based on the same measures of effectiveness (MOEs) and significance criteria utilized in the Envision San José 2040 GPA TIA.

This study includes an evaluation of the cumulative impacts of all six GPA sites and the required site-specific GPA transportation analysis for the Evergreen GPA site. Individual development projects also will be required to complete a near-term transportation analysis in conjunction with any future development permit applications consistent with the Envision San José 2040 GP once a development application is submitted to the City.

Cumulative GPA Long-Range Transportation Impacts

VMT Per Service Population

When compared to the current GP, the proposed land use adjustments would not result in an increase in citywide VMT per service population. Therefore, cumulatively, the 2022 GPAs would result in a less than significant impact on citywide daily VMT per service population.

Journey-to-Work Mode Share

The proposed land use adjustments would not result in an increase in drive-alone percentage when compared to the current GP conditions. Therefore, cumulatively, the 2022 GPAs would result in a less than significant impact on citywide journey-to-work mode share.

Average Vehicle Speeds in Transit Priority Corridors

The proposed land use adjustments would not result in a decrease in travel speeds of greater than one mph or 25 percent on any of the 14 transit priority corridors when compared to current GP conditions. Therefore, cumulatively, the 2022 GPAs would result in a less than significant impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Impacts on Transit, Bicycle, and Pedestrian Circulation

Transit Services or Facilities

The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would have an adverse effect on existing or planned transit facilities. Therefore, the proposed 2022 GPAs land use adjustments would not substantially disrupt existing or interfere with planned transit services or facilities.

Bicycle Facilities

The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned bicycle facilities. Therefore, the proposed 2022 GPA land use adjustments would not substantially disrupt existing or interfere with planned bicycle facilities; conflict or create inconsistencies with adopted bicycle plans, guidelines, policies, or standards; and provide insecure and unsafe bicycle parking in adequate proportion to anticipated demand.

Pedestrian Facilities

The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned pedestrian facilities. Therefore, the proposed 2022 GPA land use adjustments would not substantially disrupt existing or interfere with planned pedestrian facilities; create inconsistencies with adopted pedestrian plans, guidelines, policies, or standards; and provide accessible pedestrian facilities that would not meet current ADA best practices.

Consistency with General Plan Policies

The City of San José's Transportation Policies contained in the General Plan are intended to do the following:

1. Establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes.
2. Promote San José as a walking- and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Implementation of the General Plan Transportation Policies can help to promote a multi-modal transportation system and stimulate the use of transit, bicycle, and walk as practical modes of transportation in the City, which ultimately will improve operating speeds in the City's 14 transit priority corridors. An enhanced multi-modal transportation system can reduce reliance on the automobile and decrease the amount of vehicle travel, specifically journey-to-work drive-alone trips.

Based on the results of the analysis, the 2022 GPAs are consistent with the City of San José GP transportation policies, as they are projected to keep the drive-alone percentage the same and the changes in alternative transportation modes (transit, bike, and walk) and operating speeds along the City's 14 transit priority corridors to minimal amounts when compared to the current GP conditions.

Site-Specific GPA Transportation Analysis

The Evergreen GPA site is located within the Evergreen special subarea, proposes a conversion of non-residential to residential land uses, and is projected to result in a net increase in PM peak-hour trips to the project site. Therefore, based on the GPA TA guidelines, the preparation of a site-specific GPA TA for the proposed land use amendment on the project site is required.

The results of the analysis show that the additional traffic generated by the Evergreen GPA site would not cause any additional transportation impacts beyond those identified for the adopted Envision San José 2040 GP. Therefore, the Evergreen GPA site would result in a less than significant impact on the citywide roadway system.

Based on the results of the analysis, the Evergreen GPA is consistent with the City of San José GP transportation policies, as it is projected to slightly increase bike and walk travel while keeping the drive-alone percentage the same and the changes in operating speeds along the City's 14 transit priority corridors to minimal amounts when compared to the current GP conditions.