APPENDIX B
Transportation Impact Analyses

B-1 Transportation Impact Analysis Supplement
Project Scenario 7 and Land Use Options Scenario 7A

B-2 Transportation Impact Analysis

Appendix B-1

Transportation Impact Analysis Supplement

Project Scenario 7 and
Land Use Options Scenario 7A

Envision San José 2040 General Plan

Project Scenario 7 and Land Use Options Scenario 7A

Transportation Impact Analysis Report

Prepared by City of San José, Department of Transportation

March 2011

ENVISIONSAN JOSE2040

Introduction

In 2008, the City of San José retained Fehr and Peers Transportation Consultants (Fehr and Peers) to provide transportation modeling and analysis services for the Envision San Jose 2040 General Plan Update. By October, 2010, Fehr and Peers had prepared the model forecast and analysis for several scenarios including the Base Scenario (2008 existing condition), General Plan San Jose 2020, and the Envision land use scenario, Scenario 6. Results of the analysis for these and several land use study scenarios are documented in the draft transportation impact analysis report dated October, 2010.

At an Envision Task Force Urban Village planning charrette, conducted on November 1, 2010, Task Force members suggested that the Urban Village areas could accommodate additional job growth. At the same time, as the Water Pollution Control Plant planning process has progressed, consultants assisting with the preparation of the Plant Master Plan have suggested that Scenario 6 included more job growth within the Alviso area than could be feasibly accommodated on the Plant and other Alviso employment lands.

The growth capacity adjustment reallocating employment capacity from the Alviso areas to planned Urban Villages (Land Use Scenario 7) would require additional traffic model forecast and analysis. On January 25, 2011, City Council directed city staff to expand the Envision environmental impact analyses to include an additional Draft Envision 2040 General Plan land use designation option for two different sites, the proposed conversion of open space to residential use on the Rancho del Pueblo golf course site (GP10-05-01) and the proposed conversion of employment use to residential use on the Edenvale iStar site (GP07-02-01). Either site is the subject of pending General Plan amendments. City staff has determined that additional General Plan transportation analysis is required to support these changes (Land Use Options Scenario 7A).

Given schedule and financial constraints, City staff decided to complete the additional necessary transportation impact analysis, rather than amend the consultant agreement with Fehr and Peers so that the consultant could perform this work. Therefore, City staff completed the necessary transportation impact analysis for Scenario 7 and Land Options Use Scenario 7A following the same methodology and using the same travel demand model as was used by the consultant for earlier scenarios. The results of this analysis were provided to the environmental consultants for subsequent air quality and noise analyses.

Report Format

This report provides technical summaries of the transportation impact analysis for the additional study scenarios required to provide adequate environmental clearance related to potential transportation impacts. This report is an extension of the draft Transportation Impact Analysis dated October, 2010, by Fehr and Peers Transportation Consultants. This report is not a replacement or substitute for any part or in its entirety, of the original report, nor does it change any part of the evaluation methodology. This report includes only the additional information necessary for the new study scenarios. Assumptions, methodology, data summaries, analyses, and mitigations already presented in the original report will not be replicated in this report.

The report presents assessments of performance measures selected to identify transportation impacts associated with the Envision 2040 General Plan Update. Five impact criteria are evaluated in the Envision transportation impact analysis. They are:

- Mode share;
- Vehicle-miles traveled (VMT) per service population;
- Screenline analysis;
- Transit priority corridor analysis; and
- Adjacent jurisdiction analysis.

In the following sections of this report the Study Scenarios, Mode Share, VMT, Screenline Analysis, Transit Priority Corridor Analysis, and Adjacent Jurisdiction Analysis are each described and discussed independently. The new study scenarios are described in the section immediate below, followed by evaluation of the impact criteria for those scenarios. For each impact criterion, summary data are provided for the Base Scenario, Scenario 6, and the new study scenarios, for comparison.

Study Scenarios

For purposes of environmental impact evaluations, City staff provided a final Preferred Land Use Scenario (Scenario 7) to be used as the "Project" for analysis in the EIR. The proposed new land use designations at the Rancho del Pueblo site and the iStar site are appropriately evaluated as "options" to the Project Scenario per CEQA Guidelines. Detailed descriptions of each of these scenarios are provided below:

Scenario 7

Scenario 7 is the "Project Scenario" and is a modification of the Scenario 6 land use plan to allow additional job growth in transit-oriented Urban Village areas and a lower level of job growth on the Water Pollution Control Plant buffer lands (being studied as part of the Plant Master Plan project) and other employment areas in Alviso. For Scenario 7, the Alviso Growth Area includes planned growth capacity for 25,520 new jobs, a reduction of 11,080 jobs from the planned growth capacity of 36,600 jobs included in Scenario 6. To maintain the total planned job growth capacity forecast for the Envision Plan Preferred Land Use Scenario, the number of jobs planned within various Light Rail Village areas was raised from 20,700 to 27,120 jobs. The citywide total growth capacities for households (dwelling units) and employment are therefore the same for both Scenario 7 and Scenario 6.

Scenario 7A

The Scenario 7A land use plan is a modification of Scenario 7 to include both the Rancho del Pueblo site and the iStar site. The Rancho del Pueblo site consists of an approximately 31-acre City-owned golf course near Highway 101 and King Road. Rancho del Pueblo is designated in Scenario 7, as well as in Scenario 6, as Open Space, Parkland, and Habitat, reflecting the current use. Scenario 7A includes an urban residential land use on the Rancho del Pueblo. To support this change and to maintain the overall amount of planned housing growth capacity, 570 units of residential capacity were reallocated in Scenario 7A from neighboring areas to the Rancho del Pueblo site. The iStar site is 76 acres in size and adjacent to the Hitachi Project in the Edenvale Redevelopment Area. The iStar site is designated as Industrial Park in Scenario 7, but as Medium-High Density Residential in Scenario 7A. To support this change and to maintain the overall total amounts of planned housing and job growth capacity, Scenario

7A includes up to 1,100 residential dwelling units reallocated from and 1,050 jobs displaced to neighboring planned growth areas.

Overall, Scenario 7A is designed to allow consideration of either or both Land use Option sites through reallocation of planned household and job capacities while adhering to the citywide Preferred Land Use Scenario growth capacity of 120,000 households and 470,000 jobs as developed by the Task Force. From a General Plan transportation planning perspective, variation in travel demand for either site would be localized because of the geographic separation of the two sites, and the diminutive changes in land uses relative to the overall planned growth capacities. Scenario 7A provides adequate information on transportation impacts to support individual consideration of both Land Use Options (e.g., the proposed changes to the Rancho del Pueblo site and the iStar site may be considered individually or in combination).

The proposed Envision 2040 circulation network was determined through a street network audit process that is independent from land use planning. Neither scenario involves additional transportation network changes. In other words, the Envision 2040 circulation network an assumption are identical for Scenario 6, Scenario 7, and Scenario 7A.

Performance Criteria/Significance Thresholds

Transportation Mode Share

The journey-to-work mode share results are summarized from the City's travel demand model in Table 1. All future scenarios show a lower utilization of the automobile mode share for commute-to-work travel. Scenario 7 and Scenario 7A are forecast to have the same automobile mode share of 86% for commute-to-work travel. Relative to existing travel conditions with 95% automobile mode share for journey-to-work travel, Scenario 7 and Scenario 7A are anticipated to reduce automobile mode share by about 9% a day. This is an improvement from existing conditions. Thus, Scenario 7 and Scenario 7A would both result in a beneficial impact in transportation mode share, but slightly less benefit than Scenario 6, which was forecast to reduce auto mode share to 85%.

Land Use Based Vehicle-Miles Traveled (VMT)

The daily land use based vehicle-miles traveled per service population is summarized from the City's travel demand model and is shown in Table 2. Service population is defined as the sum of total population and total employment in the city. Both Scenario 7 and Scenario 7A are projected to generate 16.2 VMT/SP daily, which is higher than the 14.6 VMT/SP calculated for existing conditions. Therefore, Scenario 7 and Scenario 7A would both have a significant transportation impact resulting in an increase in land use based VMT. The impact of either scenario is also slightly greater than that anticipated from Scenario 6.

Table 1: Journey to Work Mode Share

Mode	Existing Conditions	San José GP2020 Conditions	Scenario 6 Conditions	Scenario 7 Conditions	Scenario 7A Conditions
	Number of Person Trips and Percent Mode Share				
Drive Alone	682,000	1,031,000	1,105,000	1,183,000	1,183,000
	79%	70%	67%	68%	68%
Shared Ride 2	101,000	208,000	221,000	231,000	231,000
	12%	14%	14%	13%	13%
Shared Ride 3+	35,000	69,000	74,000	79,000	79,000
	4%	5%	5%	5%	5%
Auto Subtotal	817,000	1,308,000	1,400,000	1,493,000	1,492,000
	95%	90%	85%	86%	86%
Transit	29,000	117,000	180,000	171,000	172,000
	3%	8%	11%	10%	10%
*Drive to/from Transit**	*8,000*	*64,000*	*100,000*	90,000	91,000
*Walk to/from Transit**	*49,000*	*169,000*	*260,000*	252,000	253,000
Bicycle	6,000	16,000	30,000	27,000	27,000
	1%	1%	2%	2%	2%
Walk	11,000	18,000	28,000	31,000	31,000
	1%	1%	2%	2%	2%

Note: Although work trips may occur at any time of the day, a majority of work trips occur during typical peak periods (6:00 AM to 10:00 AM and 3:00 PM to 7:00 PM).
*** Walk to/from Transit and Drive to/from Transit trips are not included in the mode share percentages. Note that all non-auto access to transit is considered a Walk trip.**
The values shown have been rounded for presentation purposes.
Current General Plan conditions are displayed for informational purposes only and not used to determined impacts.

Screenline Analysis

The number of significant screenline impacts are shown in Table 3 for future scenarios. Both scenarios are projected to have 105 significant screenline impacts out of 108 screenlines evaluated for both AM and PM peak hours. Not readily shown in a summary table, though, is that congested screenlines and impacted screenlines are nearly identical for Scenario 7 and Scenario 7A. This further affirms the localized nature of, and limited change in traffic patterns for both Scenario 7 and Scenario 7A. Detailed screenline results are included in TableA-1 (attachment). Overall, the regional screenline impacts are significant for both Scenario 7 and Scenario 7A, albeit very slightly less significant than Scenario 6.

Table 2: Land Use, VMT, and Mode Share Summary

Category	Existing Conditions	No Project San José 2020 GP	2035 Conditions Scenario 6	Scenario 7	Scenario 7A
Housing, Population, Jobs, and VMT					
Dwelling Units	309,350	391,460	429,350	429,350	429,350
Population	985,307	1,197,868	1,313,811	1,313,811	1,313,811
Employment	369,450	625,000	839,450	839,450	839,450
Service Population	1,354,757	1,822,868	2,153,261	2,153,261	2,153,261
VMT	19,806,977	30,916,900	34,628,903	34,852,957	34,850,293
VMT Ratios					
VMT/capita	20.1	25.8	26.4	26.5	26.5
VMT/SP	**14.6**	**17.0**	**16.1**	**16.2**	**16.2**
Jobs/Employed Resident	0.8	1.1	1.3	1.3	1.3
Mode Shares					
Work - Auto	95%	90%	85%	86%	86%
Work - Transit	3%	8%	11%	10%	10%
Daily - Auto	91%	89%	86%	86%	86%
Daily - Transit	3%	5%	6%	6%	6%

Scenario 7A is the cumulative scenario including Scenario 7, pending iStar and Rancho amendments

Table 3: Regional Screenline Summary

Number of Screenline	General Plan 2020	Scenario 6	Scenario 7	Scenario 7A
Evaluated (AM & PM)	108	108	108	108
Impacted AM Peak	47	52	52	52
Impacted PM Peak	43	54	53	53
Impacted Total	90	106	105	105

Transit Priority Corridors

Average travel speeds in miles-per-hour are forecast by the City's travel demand model and are summarized in Table 4. Fourteen corridors were selected for evaluation based on the AM peak hour average speed. Scenario 7 and Scenario 7A demonstrate a similar impact patterns. Significant transit priority corridor impacts were identified for 12 of the 14 transit priority corridors evaluated for Scenario 7 and Scenario 7A. The W. San Carlos Street corridor is the sole transit corridor that does not have significant impacts. Scenario 6 has significant impacts on 7 of the corridors. The additional impacts identified for Scenario 7 and Scenario 7A are the result of reallocating substantial employment from the Alviso area to Urban Villages that are along the transit corridors. Overall, transit priority corridor impacts are significant for both Scenario 7 and Scenario 7A.

Table 4: Transit Priority Corridor

			AM Peak Hour Average Speed (mph)				
Roadway Segment	**Cross Street 1[1]**	**Cross Street 2[1]**	**Base**	**GP2020**	**Scen 6**	**Scen 7**	**Scen 7A**
2nd St.	San Carlos	St James	11.47	11.44	11.44	11.42	11.43
Alum Rock Ave.	Capitol Ave	Hwy 101	20.02	**13.07**	**12.91**	**9.74**	**10.52**
Camden Ave.	Hwy 17	Meridian	23.96	**11.45**	17.99	**14.85**	**14.27**
Capitol Ave.	S. Milpitas Blvd.	Capital Expwy	24.13	19.64	**17.46**	**14.54**	**14.69**
Capitol Expwy	Capitol Expwy	Meridian	28.62	22.05	23.81	**20.28**	**19.74**
E. Santa Clara St.	Hwy 101	Delmas	20.35	**12.63**	16.16	**14.54**	**14.48**
Meridian Ave.	Park	Blossom Hill Rd	25.49	**15.62**	19.55	**15.33**	**17.36**
Monterey Rd.	Keyes	Metcalf	24.56	**15.35**	**16.99**	**15.04**	**15.16**
N. 1st St.	SR 237	Keyes	22.59	**11.12**	**13.38**	**12.24**	**12.20**
San Carlos	Bascom	SR 87	24.27	**16.56**	19.68	**16.86**	**16.33**
Stevens Creek Blvd.	Bascom	Tantau Ave	23.13	**11.83**	**16.80**	**14.81**	**14.32**
Tasman Dr.	Lick Mill	McCarthy	24.26	**11.49**	**9.54**	**8.97**	**9.05**
The Alameda	Alameda Way	Delmas	22.55	**8.06**	**14.23**	**11.01**	**11.47**
W. San Carlos St.	SR 87	Second St	19.86	15.44	17.54	15.55	15.01

Bold Value is considered significant transportation impact

Adjacent Jurisdictions

Table 5 and Table 6 summarize operational conditions and the proportion of trips attributable to San José's land use in nearby roadways outside of San José's jurisdiction. The City's travel demand model forecasts significant impacts in 15 out of 16 jurisdictions evaluated (including Caltrans operated state facilities which are collectively regarded as an adjacent jurisdiction) for Scenario 6, Scenario 7 and Scenario 7A. The City's travel demand model does not project any deficient roadway facility in Monte Sereno.

While the numbers of cities impacted are the same for Scenario 6, Scenario 7, and Scenario 7A, the magnitude of the impacts are the impact is noticeably lower in the cities of Mountain View and Palo Alto for Scenario 7 and Scenario 7A. The lesser impacts in Mountain View and Palo Alto is mainly related to lower job growth in the Alviso area.

Overall, Scenario 7 and Scenario 7A would cause significant transportation impacts during the AM 4-hour peak period in the following 15 jurisdictions:

- Campbell
- Cupertino
- Gilroy
- Los Altos
- Los Altos Hills
- Los Gatos
- Milpitas
- Morgan Hill
- Mountain View
- Palo Alto
- Santa Clara
- Saratoga
- Sunnyvale
- Caltrans freeways
- County expressways

Table 5: Adjacent Jurisdiction Analysis - Existing & GP 2020

	Existing Conditions (Base)			General Plan 2020		
City	Total Lane Miles with Deficient V/C	Impact Lane Miles Attributable to the City	Percent of Lane Miles Affected	Total Lane Miles with Deficient V/C	Impact Lane Miles Attributable to the City	Percent of Lane Miles Affected
Campbell	0.13	0.13	100%	3.01	3.01	100%
Cupertino	0.67	0.67	100%	10.57	8.21	78%
Gilroy	0.00	0.00	0%	2.85	2.34	82%
Los Altos	0.78	0.78	100%	2.95	2.54	86%
Los Altos Hills	0.17	0.02	14%	2.67	1.91	71%
Los Gatos	0.12	0.12	100%	2.97	2.97	100%
Milpitas	0.73	0.73	100%	17.63	17.63	100%
Monte Sereno	0.00	0.00	0%	0.00	0.00	0%
Morgan Hill	0.00	0.00	0%	0.68	0.68	100%
Mountain View	0.72	0.65	90%	7.58	7.13	94%
Palo Alto	0.48	0.16	33%	5.93	1.65	28%
Santa Clara	0.17	0.17	100%	9.98	9.98	100%
Saratoga	1.26	1.26	100%	6.37	6.37	100%
Sunnyvale	0.00	0.00	0%	2.86	2.86	100%
Caltrans Facilities	5,093.26	4,391.72	86%	4,915.73	4,531.00	92%
Santa Clara County Facilities	3.01	3.01	100%	26.02	26.02	100%

Bold Value is considered significant transportation impact

Table 6: Adjacent Jurisdiction Analysis - Scenarios 6, 7, & 7A

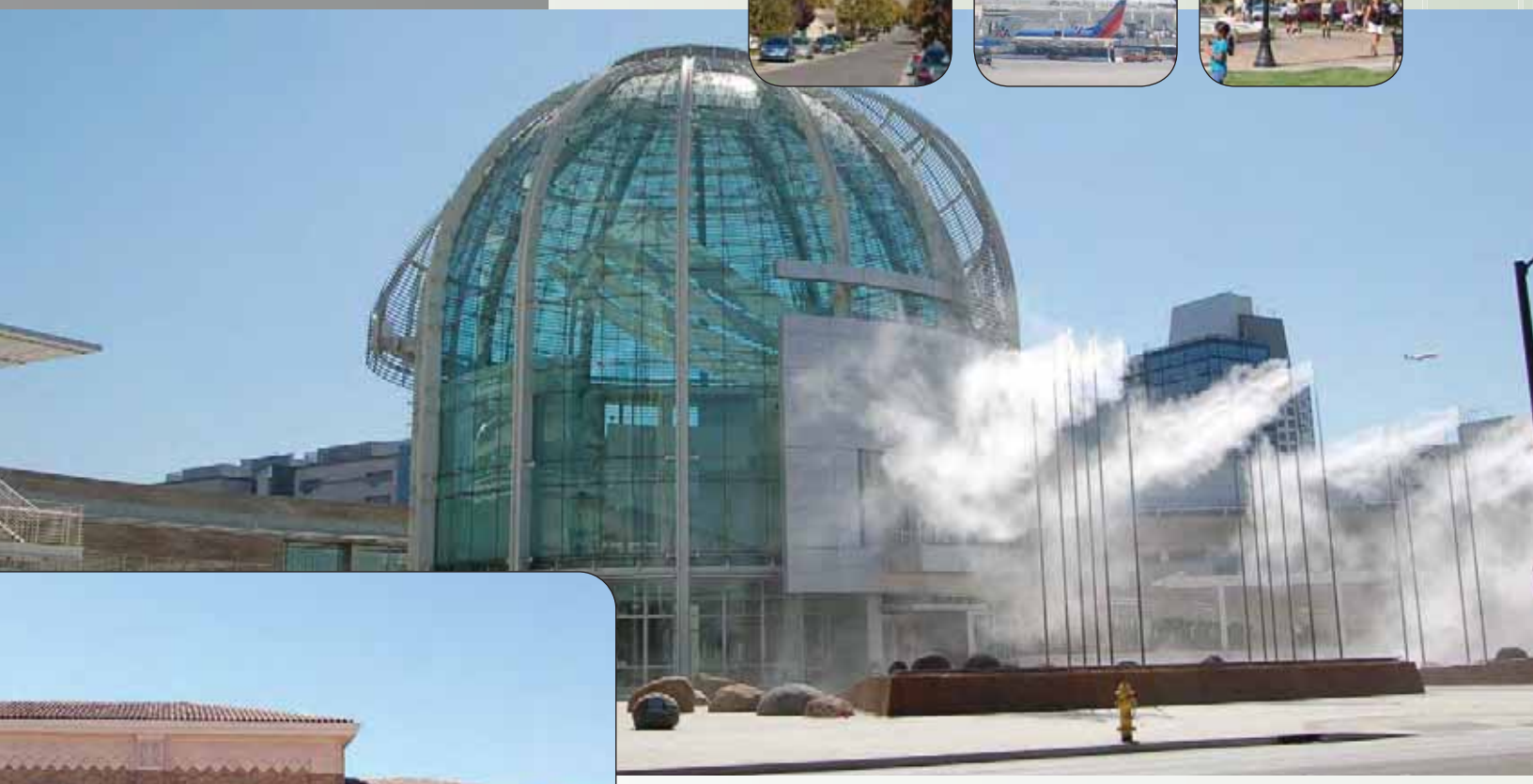
	Scenario 6			Scenario 7			Scenario 7A		
City	Total Lane Miles with Deficient V/C	Impact Lane Miles Attributable to the City	Percent of Lane Miles Affected	Total Lane Miles with Deficient V/C	Impact Lane Miles Attributable to the City	Percent of Lane Miles Affected	Total Lane Miles with Deficient V/C	Impact Lane Miles Attributable to the City	Percent of Lane Miles Affected
Campbell	0.42	0.42	100%	0.83	0.83	100%	0.42	0.42	100%
Cupertino	7.52	5.45	73%	7.33	5.27	72%	7.42	5.36	72%
Gilroy	1.65	1.65	100%	1.54	1.54	100%	1.65	1.65	100%
Los Altos	2.52	2.52	100%	1.93	1.93	100%	1.65	1.65	100%
Los Altos Hills	3.61	3.00	83%	3.61	3.00	83%	3.61	3.00	83%
Los Gatos	0.90	0.90	100%	0.90	0.90	100%	0.90	0.90	100%
Milpitas	22.17	22.17	100%	23.15	23.15	100%	20.84	20.84	100%
Monte Sereno	0.00	0.00	0%	0.00	0.00	0%	0.00	0.00	0%
Morgan Hill	1.97	1.97	100%	1.69	1.69	100%	1.69	1.69	100%
Mountain View	11.76	10.83	92%	8.02	7.16	89%	8.16	7.23	89%
Palo Alto	7.58	4.76	63%	5.11	1.53	30%	5.77	2.26	39%
Santa Clara	1.95	1.95	100%	2.35	2.35	100%	3.76	3.76	100%
Saratoga	5.71	5.71	100%	4.03	4.03	100%	3.51	3.51	100%
Sunnyvale	1.45	1.42	98%	1.14	1.14	100%	1.56	1.53	98%
Caltrans Facilities	4,951.58	4,584.04	93%	5,059.70	4,722.12	93%	5,065.01	4,732.85	93%
Santa Clara County Facilities	21.33	21.33	100%	23.59	23.59	100%	21.78	21.78	100%

Bold Value is considered significant transportation impact

Appendix B-2

Transportation Impact Analysis

FEHR & PEERS
TRANSPORTATION CONSULTANTS



City of San José

ENVISION SAN JOSÉ 2040 GENERAL PLAN:

Transportation Impact Analysis for the Draft Environmental Impact Report

Envision San José 2040 General Plan: Transportation Impact Analysis (TIA) for the Draft Environmental Impact Report (DEIR)

Prepared For:
The City of San José
David J. Powers & Associates, Inc.
October 2010

SJ08-1037

FEHR & PEERS
TRANSPORTATION CONSULTANTS

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EXECUTIVE SUMMARY

In 2007, the City of San José began a process to update its General Plan. The update of the General Plan, known as Envision San José 2040, includes a new land use program that will guide the City's growth over the next 30 years. The goal of the proposed General Plan Circulation Element is to provide a safe, efficient, and environmentally-sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit with those of automobiles and trucks. This report presents the results of the transportation impact analysis (TIA) for the update of the San José General Plan.

The TIA identifies potentially significant adverse impacts of the proposed General Plan Update on the surrounding transportation system and recommends mitigation measures in compliance with the California Environmental Quality Act (CEQA) and assesses the proposed General Plan Update's consistency with transportation-related regulatory goals and policies. The proposed General Plan Update is a planning document. Therefore, the analysis in this document is a program-level analysis and may be supplemented with subsequent project-specific analyses for land use development projects and transportation infrastructure improvements that are proposed.

PROJECT DESCRIPTION

This report analyzes the added travel demand generated by the proposed land use development and transportation components included in the proposed General Plan Update. Descriptions of the land use and transportation components are presented in the Planned and Proposed Transportation Improvements chapter and are summarized below.

Envision 2040 General Plan Circulation Element Goals and Policies

The Circulation Element of the proposed General Plan Update 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). As the City moves towards mixing appropriate land uses together, intensifying land use development along transit corridors and other key development areas, and creating more linkages between neighborhoods, the multimodal transportation network becomes an integral part of the City's vision and goals. San José's mobility goals aim to address the following objectives:

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

Proposed General Plan Land Use Allocation

Future population and employment estimates within the City of San José were provided by City staff and integrated with data from regional Association of Bay Area Governments (ABAG) projections. The total number of jobs and residents within the nine county ABAG area remained constant for both the current General Plan and proposed General Plan Update by adjusting land use outside of Santa Clara County such that, if a scenario differed from the ABAG projections, the difference between the projections for San José and the individual scenario's land use was distributed among the remainder of jurisdictions in the Bay Area region outside of Santa Clara County. **Table ES-1** summarizes number of dwelling units and the employment in the City of San José for the proposed General Plan Update.

TABLE ES-1
ESTIMATED JOBS AND HOUSING COMPARISON

	Jobs and Housing Based on Land Use Designations		
	Existing Conditions (2008)	**Current 2020 General Plan (projected totals to 2035)**	**Proposed General Plan (2035)**
Total Land Use Estimates			
Dwelling Units	309,350	391,460	429,350
Employment	369,450	625,000	839,450
Growth from 2008 Base Year			
Dwelling Units	-	82,110	120,000
Employment	-	255,550	470,000

Note: Current General Plan conditions are displayed for informational purposes only and not used to determined impacts. Current General Plan conditions reflect projections for 2035 based on the continuation of growth trends under the currently adopted 2020 General Plan.
Source: City of San José, 2010.

Proposed General Plan Transportation and Circulation Network

Street Typologies

To ensure a balanced, multimodal transportation network, the proposed General Plan Update organizes streets and other transportation facilities according to "typologies." Street typologies are an expansion of functional classifications that consider street context and prioritize certain travel modes and certain types of streets. For example, the proposed General Plan includes a "grand boulevard" street typology on which the movement of transit vehicles is prioritized over other modes of travel. Street typologies reflect a roadway's adjacent land use, appropriate travel speeds, and the need to accommodate multiple travel modes.

The proposed typologies are intended to provide a network of "complete streets" that accommodates the various users of the street network. "Complete streets" describes a comprehensive approach to the practice of mobility planning that recognizes that transportation corridors have multiple users with different abilities and mode preferences (e.g., driving, biking, walking, and taking transit). Complete streets, by addressing the needs of all uses of the transportation network, not only improve safety for all users and foster strong communities, but also address climate change, by increasing accessibility and viability of travel modes other than the automobile. Adjacent land use influences the functionality and character of the street environment. A well-integrated street system considers the complementary relationship between land use, local and regional travel needs. The Complete streets concept applies to all types of roads from downtown pedestrian streets to high-capacity commercial corridors, and it considers the range of users, including children, the disabled, and seniors.

Planned Roadway Network Changes

The proposed General Plan Update includes a number of changes to the City's current street system and transit network. Highlights of the planned street and transit improvements contained in the proposed General Plan Update are listed below. They include the following improvements that are expected to be constructed by the year 2035.

- BART to San Jose (and continuing to Santa Clara)
- Bus Rapid Transit along 4 corridors in the County

- Electrification of Caltrain commuter rail service
- A new interchange at Senter Road / I-280
- Chynoweth Avenue to Thornwood Drive connection via extension of Sanchez Drive
- Skyport Boulevard connection between 1st and 4th
- A new interchange at US 101 / Mabury Road
- A new interchange at US 101 / Zanker Road
- New Chynoweth Avenue extension between Almaden Road and Winfield Boulevard
- Vine Avenue & Almaden Road couplet conversion between Grant Road and Alma Street
- New Autumn Street connection between Coleman Avenue and Park Avenue
- New Skyport Boulevard connection between 1st and 4thStreets.

Due to the regional nature of the travel demand forecast model used for this study, the California High Speed Rail project, which is expected to carry primarily inter-city passengers, is not assumed in the study.

SCOPE OF THE TRANSPORTATION IMPACT ANALYSIS

Impacts of the proposed General Plan Update are evaluated for increased congestion at specified screenlines, , increased air traffic, impacts to emergency access, impacts to pedestrian, bicycle, and transit facilities, substantial increase in vehicle miles traveled, and impacts to roadways in adjacent jurisdictions for the following scenarios:

Existing Conditions – Existing traffic and transportation conditions using traffic volumes obtained from counts and data from the City's transportation model.

Proposed General Plan Update (2035[1]) Conditions –Project traffic is added to regional growth that can be reasonably expected to occur by the year 2035. Regional conditions generally reflect ABAG projections.

ANALYSIS RESULTS

Table ES-2 summarizes the less-than-significant and significant impacts that may occur with the implementation of the proposed General Plan Update, as well as mitigation measures to eliminate or reduce these impacts.

[1] In order to be consistent with the regional congestion management program (CMP) travel demand forecasting model maintained by VTA, the year 2035 was used to evaluate conditions for the proposed General Plan Update.

TABLE ES-2:
SUMMARY OF PROPOSED GENERAL PLAN UPDATE IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation	Level of Significance After Mitigation
For established roadway screenlines within the City, implementation of the proposed General Plan Update would cause aggregated volume-to-capacity ratios for congested links (links with V/C of 0.9 or higher) of regional screenlines to increase in the peak direction by at least 0.005, and total volumes on the same links increase in the peak direction by at least 2.5% of the average congested link capacity.	S	To fully mitigate these impacts, substantial vehicular capacity improvements would need to be implemented. Capacity improvements, such as roadway widening, provide excess capacity for the majority of the day outside of peak travel periods. Wider roadways also are generally inconsistent with General Plan Sustainable City goals promoting a more livable city because they discourage roadway use by pedestrians and bicyclists. Additionally, the cost of capacity improvements needed to mitigate impacts is extremely high, and no funding mechanism is currently identified. Based on these considerations, no feasible mitigation measures were identified that would reduce screenline impacts to a less than significant level.	SU
Implementation of the proposed General Plan Update would not increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use.	LTS	None required.	NA
Implementation of the General Plan Update would not result in substantial safety risks due to changes in air traffic levels.	LTS	None required.	NA
Implementation of the proposed General Plan Update, including proposed policies, goals and actions, would not degrade emergency response times below acceptable levels.	LTS	None required.	NA
Implementation of the proposed General Plan Update would not interfere with planned pedestrian facilities.	LTS	None required.	NA
Implementation of the proposed General Plan Update would result in construction of pedestrian facilities that meet current ADA best practices.	LTS	None required.	NA
Implementation of the proposed General Plan Update would not conflict with adopted pedestrian system plans, guidelines, policies or standards.	LTS	None required.	NA
Implementation of the proposed General Plan Update would disrupt existing pedestrian facilities.	LTS	None required.	NA
Implementation of the proposed General Plan Update would disrupt existing bicycle facilities.	LTS	None required.	NA
Implementation of the proposed General Plan Update would provide secure and safe bicycle parking in adequate proportion to anticipated demand.	LTS	None required.	NA

Table continued on next page

TABLE ES-2:
SUMMARY OF PROPOSED GENERAL PLAN UPDATE IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation	Level of Significance After Mitigation
Implementation of the proposed General Plan Update would not interfere with planned bicycle facilities.	LTS	None required.	NA
Implementation of the proposed General Plan Update would not conflict with or create inconsistencies with adopted bicycle system plans, guidelines, policies or standards.	LTS	None required.	NA
Implementation of the proposed General Plan Update would not disrupt existing, or interfere with planned transit services or facilities.	LTS	None required.	NA
Implementation of the proposed General Plan would not increase the City's automobile mode share.	LTS	None required.	NA
Implementation of the proposed General Plan Update would cause the average speed on a transit priority corridor to drop below 15 mph or decrease by 25% or more during the AM peak hour (compared to existing conditions).	S	Implementation of the following policy as part of the General Plan would substantially reduce impacts to transit services along roadways designated as transit priority corridors : • The City will develop and implement a Transit Priority Corridor Efficiency Plan. This Plan would include measures and identify funding sources to ensure transit services on key corridors maintain an average travel speed of 15 mph and do not decrease from existing conditions by 25 percent or more during the AM peak hour. With adoption of the new policy above and the policies and implementing actions contained in the proposed General Plan Update, this impact would be reduced to a less-than-significant level. If the City does not adopt the policy to develop a Transit Priority Corridor Efficiency Plan, this impact would be considered significant and unavoidable.	LTS with adoption of new policy, SU without adoption of new policy
The proposed General Plan Update causes daily land-use based VMT per service population to increase over existing conditions.	S	With adoption of the policies and implementing actions contained in the General Plan Update, this impact would be reduced but could remain significant due to regional factors influencing VMT that are beyond the City's control. Factors include overall city growth and increased destination choices not only within San José but also in other localities within the Bay Area region which influence travel patterns and new development occurring away from transit.	SU

Table continued on next page

TABLE ES-2:
SUMMARY OF PROPOSED GENERAL PLAN UPDATE IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation	Level of Significance After Mitigation
Implementation of the proposed General Plan Update would cause 25 percent or more of adjacent jurisdiction major street lane miles to have a future volume-to-capacity ratio of greater than 1.0, and a City contribution of 10 percent or more of the total traffic in the AM four-hour peak period.	S	To fully mitigate these impacts, substantial vehicular capacity improvements would need to be implemented. Capacity improvements, such as roadway widening, provide excess capacity for the majority of the day outside of peak travel periods. The cost of capacity improvements needed to mitigate impacts is extremely high, and no funding mechanism is currently identified. Additionally, improvements needed to mitigate these impacts would occur in areas outside of the City's jurisdiction. Based on these considerations, no feasible mitigation measures were identified that would reduce screenline impacts to a less than significant level.	SU

Notes:
S: Significant
SU: Significant and Unavoidable
NA: Not Applicable
Source: Fehr & Peers, 2010.

I. INTRODUCTION

In 2007, the City of San Jose began a process to update its General Plan. The update of the General Plan, known as Envision San José 2040, includes a new land use program and modified transportation system that will guide the City's growth over the next 30 years.

New land uses described under the General Plan will change transportation patterns in and around San Jose. This report describes potential impacts on the transportation system associated with the adoption of the Envision San José 2040 General Plan (hereafter referred to as the proposed General Plan Update). Impacts are evaluated based upon a c omparison between existing conditions (2008) and future conditions (year 2035) with the proposed General Plan Update.

II. EXISTING CONDITIONS

The circulation network serving the City of San Jose consists of roadways, transit, bicycle, pedestrian, and aviation facilities. A description of travel characteristics, major transportation facilities, and existing travel conditions are provided in the *Envision San Jose 2040 General Plan: Existing Conditions Report (2008)*. A summary of those key travel characteristics is included in this section.

a. Travel Characteristics

The City of San José has evolved from a small, agricultural town in the 1950s to a metropolitan city with nearly 1,000,000 residents. Located in the heart of Silicon Valley, over 360,000 jobs are also contained within the City. The transportation circulation network serving the City consists of roadways, transit, bicycle and pedestrian facilities.

Journey to work data gathered by the U.S. Census Bureau provides a means of estimating the prevalence of particular transportation modes, or mode split, in a given community. While the journey to work is only one aspect of travel patterns, it is important to understand because commute trips make up the bulk of the traffic during the busiest time of day.

Table 1 compares the commute characteristics of San José residents to those of Santa Clara County, the State of California, and the United States (U.S.) as a whole based on the 2000 Census data. Approximately 90 percent of San José and Santa Clara County residents commute by automobile, which is consistent with the state and national trends of 87 and 88 percent, respectively. San José commuters tend to carpool slightly more than those in the rest of the County.

San José transit usage is higher than transit usage in Santa Clara County and lower as compared to state and national data. San José's share of bicycle users is about half that of the County and comparable to bicycle usage in the state and nation; while the walk share is similar to the County and lower than state and nation shares. The 2000 Census shows a lower share of San José residents working at home in comparison to the County, state, or nation. Both San José and Santa Clara County show lower percentages of residents working outside their county of residence. However, average commute times remain close to 30 minutes with the majority of City and County residents leaving for work between 7:00 and 9:00 am.

TABLE 1
SAN JOSÉ RESIDENTS JOURNEY TO WORK TRAVEL CHARACTERISTICS

Travel Characteristics	San José	Santa Clara County	California	United States
Commute Mode Choice				
Single-Occupant Automobile	76.5%	77.4%	71.9%	75.8%
Carpool	14.2%	12.3%	14.6%	12.2%
Commute by Automobile	90.7%	89.7%	86.5%	88.0%
Public Transit	4.1%	3.6%	5.2%	4.7%
Bicycle	0.6%	1.2%	0.8%	0.4%
Walk	1.4%	1.8%	2.9%	2.9%
Other Means	0.7%	0.6%	0.8%	0.7%
Work at Home	2.5%	3.1%	3.8%	3.3%
Other Commute-Related Data				
Percentage who work outside County of Residence	10%	12%	17%	23%
Percentage who Leave for Work before 7:00 am	29%	25%	32%	31%
Percentage who Leave for Work between 7:00 am and 9:00 am	47%	50%	45%	47%
Average Travel Time to Work	29.9 minutes	28.1 minutes	29.3 minutes	27.0 minutes

Source: Census 2000, SF-3

b. Roadway Network

The City of San José's transportation network is dominated by motor vehicle travel. High levels of motor vehicle travel result in increased congestion and air pollution. Because buildout of the street and roadway system within the City is nearly complete, the potential for expanding vehicle capacity on major roadways is limited. Some improvements are possible at key constraint points such as intersections and interchanges. However, congestion on freeways and expressways has placed more of the regional travel burden on arterial and collector streets – a use that these streets were generally not intended to serve.

Physical Conditions

The City is traversed by a number of key regional and l ocal transportation facilities. This extensive transportation network provides circulation and mobility that allow for local and regional connectivity. Streets with the highest average daily traffic (ADT) volumes are those that provide north/south and east/west connections across the freeways and railroads or serve as parallel routes to the freeways. **Figure 1** presents the City Location and Street Network.

Local streets are designed for high accessibility (access to adjacent properties) and low mobility (throughput of traffic movement). Conversely, freeways are designed for low accessibility, with limited connections to other facilities provided by grade-separated interchanges, and high mobility. San José's thoroughfare network is comprised of state transportation corridors, freeways, expressways, minor and major arterial streets, major collectors, local streets, transit malls, pedestrian malls, interchanges, separations, freeway connectors and rail lines. The City of San José's main vehicular roadway types are described below.

Freeways

US 101 is a north-south freeway in San José. This route is entirely a freeway through Santa Clara County. The freeway includes four mixed-flow lanes per direction including high occupancy vehicles (HOV) lanes during peak periods. HOV lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more persons (carpools, vanpools, and buses) or motorcycles during the peak morning (5:00 am to 9:00 am) and evening (3:00 pm to 7:00 pm) commute periods. Through the City, northbound US 101 is generally the peak morning commute direction on US 101, and southbound is the peak evening commute direction. US 101 extends through San José from the southern city limits near Morgan Hill to the City's boundary with Santa Clara, north of Trimble Road.

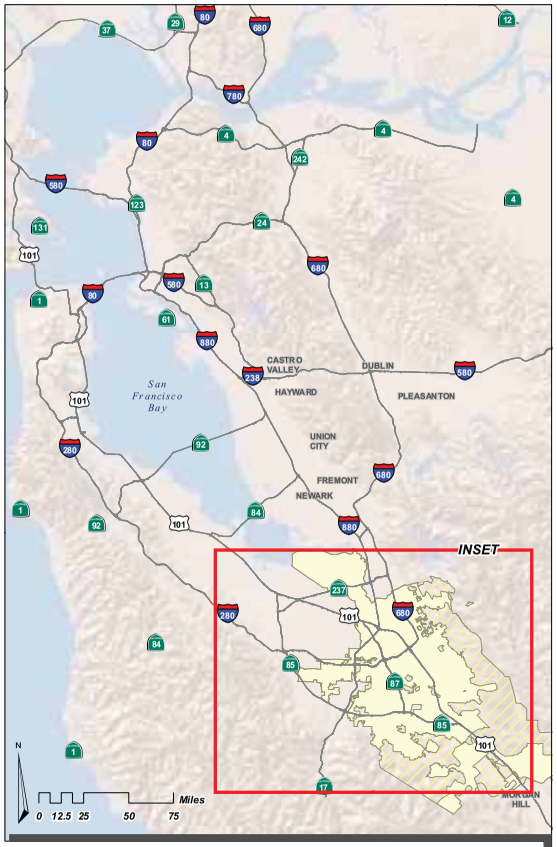
I-280 is a north-south freeway extending from the US 101 interchange in the City of San José north to San Francisco. East of the US 101 interchange, I-280 is designated as I-680. The freeway includes four to five mixed-flow lanes per direction including HOV lanes north of the I-280/I-880/SR 17 interchange. The peak commute directions on I-280 are northbound during the morning and southbound during the evening. I-280 extends between Stevens Creek Boulevard and US 101 in San José.

I-680 is a north-south freeway extending from the I-280/I-680/US 101 interchange in the City of San José north to Solano County. The freeway includes four mixed-flow lanes per direction. Peak commute directions on I-680 are southbound during the morning and northbound during the evening. From the north, I-680 enters the City of San José at Montague Expressway.

I-880 is a north-south freeway extending from the City of San José at the I-280/I-880/SR 17 interchange to the City of Oakland. This facility includes three to four mixed-flow lanes per direction. Southbound I-880 is the peak commute direction during morning and northbound I-880 is the peak commute direction during the evening. From the north, I-880 enters the City at Montague Expressway.

SR 17 is a north-south freeway extending from the City of San José at the I-280/I-880/SR 17 interchange to the City of Santa Cruz. The facility includes two to three mixed-flow lanes per direction. Northbound is the peak direction during the morning and southbound is the peak direction during the evening. From the north, SR 17 exits the City at Hamilton Avenue.

SR 85 is generally a north-south freeway extending in an east to west direction through the City of San José from the SR 85/US 101 interchange in the City of Mountain View to the SR 85/US 101 interchange in south San José. This facility includes three to four mixed-flow lanes per direction including HOV lanes during peak periods. Northwest bound SR 85 is the commute direction during the morning, and southeast bound SR 85 is the commute direction during the evening. From the north, SR 85 enters the City north of De Anza Boulevard, exits the City at Prospect Road, and re-enters at Bascom Avenue.



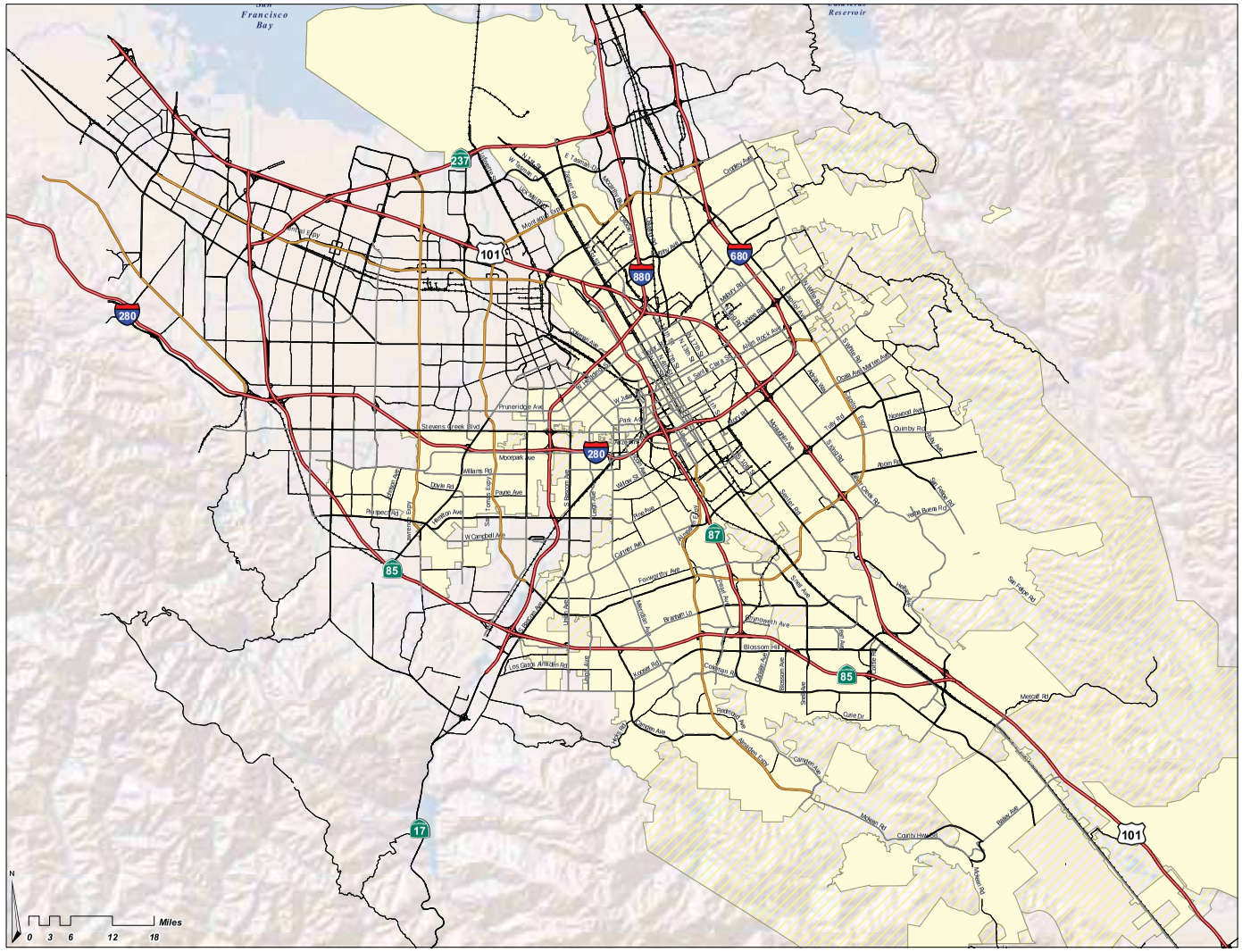
LEGEND

Transportation

- Freeway
- Expressway
- Major Arterial
- Minor Arterial
- Other Roads
- Railroad

Boundaries

- City of San José
- Sphere of Influence



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TRANSPORTATION CONSULTANTS
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SJ08-1037

City Location & Street Network
Figure 1

SR 87 is a north-south freeway extending from the SR 85/SR 87 interchange to the US 101/SR 87 interchange. This facility includes three mixed-flow lanes per direction including HOV lanes during peak periods. Northbound SR 87 is the commute direction during the morning, and southbound SR 87 is the commute direction during the evening. SR 87 is located entirely within the City of San José.

SR 237 is an east-west freeway extending between the City of Mountain View and the City of Milpitas. This freeway includes three mixed-flow lanes per direction including HOV lanes during peak periods. Traffic is evenly split between the eastbound and westbound commute directions during both the morning and evening. From the west, the freeway enters the City east of Great America Parkway and exits at the Coyote Creek Bridge.

Expressways

Expressways are facilities designed primarily for traffic movement and they provide limited access to abutting properties. These facilities generally include median areas dividing traffic directions, some intersecting streets allowing only right turn access, some grade-separated interchanges, and some signalized intersections allowing full access. Expressways are maintained and operated by the Santa Clara County Roads and Airports Department. While the City coordinates with the County regarding expressway operations and improvements, the County controls access to and operation of traffic signals on each of these facilities. Each expressway in San José is briefly described below.

Almaden Expressway is a north-south, two- to eight-lane divided roadway extending from SR 87 south to Harry Road. Almaden Expressway connects with SR 87 via a partial diamond interchange and SR 85 via a partial cloverleaf interchange. Almaden Expressway is located entirely within the City of San José.

Capitol Expressway is primarily a north-south, four- to eight-lane divided roadway extending from I-680 south and then west to Almaden Expressway. Capitol Expressway connects with I-680 via a partial cloverleaf interchange, US 101 via a full cloverleaf interchange, and SR 87 via a modified diamond interchange. Capitol Expressway is located entirely within the City of San José.

Lawrence Expressway is a north-south, six-lane divided roadway extending from SR 237 south to Saratoga Avenue. Lawrence Expressway includes HOV lanes during peak periods. Lawrence Expressway connects with I-280 and Stevens Creek Boulevard via a modified diamond interchange. Within the City, Lawrence Expressway extends from Stevens Creek Boulevard at the Santa Clara City Limit to Saratoga Avenue.

Montague Expressway is an east-west, six- to eight-lane divided roadway extending from US 101 east to I-680. This facility is designated San Tomas Expressway south of US 101 and becomes Landess Avenue east of I-680. Montague Expressway includes directional HOV lanes during peak periods (westbound during the morning and eastbound during the afternoon commute hours). Montague Expressway connects with I-880 via a full cloverleaf interchange. Within the City, the expressway extends between the Guadalupe River west of 1st Street and Trade Zone Boulevard at the Milpitas City Limit.

San Tomas Expressway is a north-south, six-lane divided roadway extending from US 101 south to SR 17. This facility is designated Montague Expressway north of US 101. San Tomas Expressway includes HOV lanes during peak periods. Within the City, San Tomas Expressway extends between Stevens Creek Boulevard at the Santa Clara City limit and the Campbell City Limit north of Hamilton Avenue.

Southwest Expressway is a north-south two- to four-lane divided roadway extending from I-280 southwest to Bascom Avenue. There are no HOV lanes on this facility. Southwest Expressway is located entirely within the City of San José.

State Transportation Corridors

In addition to freeways, several other roadways in San José are operated and maintained by Caltrans. SR 82 (Monterey Road / The Alameda) and SR 130 (Alum Rock Avenue / Mt. Hamilton Road) are the two designated state transportation corridors in the City of San José. While some state transportation corridors have a primary function of traffic movement, they also have high levels of transit, bicycle and pedestrian activity. Some corridors, such as The Alameda, function as neighborhood centers, include numerous access points for all travel modes and have many street-fronting buildings.

Arterial Streets

Arterial streets are facilities that accommodate major movements of traffic not served by expressways or freeways. They are designed mainly for the movement of through traffic and the provision of access to abutting properties is a secondary function. Although abutting properties have access to the facilities, parking and loading may be restricted or prohibited to improve the capacity for moving traffic. The current San José 2020 General Plan designates two types of arterials: major arterial streets and minor arterial streets. Arterial streets are distinguished by width. Minor arterials typically have an 80 to 106-foot right-of-way and major arterials have a right-of-way width between 115 and 130 feet. The number of lanes on this type of facility depends on its function, its location, and the volume of traffic it is expected to handle; however, arterials are generally planned to have four or more travel lanes. Some as matter of policy remain two lane roadways. Selected roadways designated as Major Arterials in the current San José 2020 General Plan are described below.

Blossom Hill Road is a major east-west arterial. It begins near US 101 as a six-lane divided roadway, becomes a four-lane undivided roadway at Kooser Road, becomes a two-lane undivided roadway near Union Avenue. The two-lane portion is on Blossom Hill Road where the road serves as the city boundary with the Town of Los Gatos. East of Kooser Road Blossom Hill Road is designated as a major arterial, while west of Kooser Road it is designated as a minor arterial.

Hedding Street/Berryessa Road is a major east-west arterial. It begins at Bascom Avenue as a four-lane undivided roadway, becomes a four-lane divided roadway at US 101, and ends at Piedmont Road.

Monterey Road (SR 82) is a major north-south arterial designated as a state transportation corridor. It begins at Alma Street as a six-lane divided highway, becomes a four-lane divided highway near Blossom Hill Road, and exits the city as a four-lane divided roadway in the Coyote Valley approximately 1.5 miles south of Bernal Road.

Santa Teresa Boulevard is a major north-south six-lane divided arterial. It begins at the SR85/SR87 interchange and exits the city in the Coyote Valley approximately one mile south of Bernal Road.

Stevens Creek Boulevard is a major east-west arterial. It begins at its intersection with Bascom Avenue in west San José as a four-lane divided roadway, becomes a six-lane undivided roadway at I-880, and exits the city at I-280. East of Bascom Avenue, Stevens Creek Boulevard continues as San Carlos Street, which is a minor arterial.

Minor Arterials form a grid-like core street network of large north-south and east-west roadways and transport a large amount of traffic within the city. As discussed above, these facilities usually include 80- to 106-foot right-of-way and typically have 4 travel lanes. Examples include Meridian Avenue, McLaughlin Avenue, and Hostetter Road. east of North Capitol Avenue and west of Piedmont Road.

Major Collector Streets

Major collector streets are facilities that serve internal traffic movements within a specific area or neighborhood and provide connections to the arterial street system. Major Collectors typically do not serve through trips but can provide access to abutting properties. Traffic control devices may be installed

to protect or facilitate traffic on a collector street. Some examples of major collectors include: Foxworthy Avenue, Johnson Avenue, Park Avenue, Redmond Avenue, Ruby Avenue, Sierra Road, and Willow Street.

Local Streets

Local streets are facilities having the primary function of providing access to immediately adjacent properties. These low-speed streets may be subdivided into classes according to the type of land served, such as residential or industrial. The vast majority of streets in the City of San José are local streets.

Transit Mall

A street or series of streets improved for pedestrian use near key transit stops is typically described as a transit mall. 1st and 2nd Street form a transit mall in downtown San José.

Pedestrian Mall

A pedestrian mall is right-of-way primarily used by pedestrians which is designed to provide safe, attractive and convenient access to portions of the Downtown and Frame Areas (areas around rail stations) where significant pedestrian traffic exists or where pedestrian traffic is encouraged. Paseo San Antonio between Cesar Chavez Plaza and San José State University is an example of a pedestrian mall.

c. Public Safety Considerations

Efficient operation of City streets helps to reduce response times for emergency responders including San José Police and Fire Department personnel, as well as private ambulance services. The design of primary response routes needs to reasonably accommodate emergency vehicles while minimizing unnecessarily large curb radii at intersections or extra wide street sections to reduce speeds. To that end, the City has limited the installation of vertical traffic control devices (such as speed humps) except on local streets.

d. Traffic Operations

Traffic operations are traditionally measured using a qualitative measure called level of service (LOS). LOS is a general measure of traffic operating conditions whereby a letter rating, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

LOS does not consider the potential impact on walking, bicycling, and transit. Pedestrians, bicyclists, and transit riders are all users of the roadway system but may not be fully recognized in the traffic operations analysis and the calculation of LOS. Identifying the need f or roadway improvements based on t he resulting roadway LOS can have unintended impacts to other modes such as increasing the walking time for pedestrians. In evaluating the roadway system, a lower vehicle LOS may be desired when balanced against other community values related to resource protection, social equity, economic development, and consideration of pedestrians, bicyclists, and transit users.

The City of San José uses LOS to evaluate traffic operations for individual projects. However, for the purpose of this analysis, traffic operations are evaluated using screenlines, mode split, vehicle miles of travel (VMT), and transit priority corridor congestion.

Existing Average Daily Traffic Volumes

Automatic tube counts were collected at 109 locations throughout the City in April and May 2008 for a two-day (48-hour) period. The average daily traffic (ADT) volumes based on t hese counts are summarized in **Table 2** and illustrated on **Figure 2**.

TABLE 2
EXISTING ROADWAY SEGMENT AVERAGE DAILY TRAFFIC

Roadway Segment	Location[1]		ADT[2]	Roadway Type	Number of Lanes
1st St	Burton St	Younger Ave	23,000	Major Arterial	4
1st St	Holger Wy	SR 237	23,400	Major Arterial	6
1st St	I-280	Reed St	22,800	Minor Arterial	4
1st St	Trimble Rd	Component Dr	22,400	Major Arterial	4
7th St	I-280	Margaret St	14,500	Minor Arterial	2
10th St	Commercial St	US 101	13,800	Minor Arterial	4
10th/11th St	Julian St	Washington St	15,000	Local	6
11th St	Margaret St	Virginia St	18,000	Local	3
13th St	Madera Ave	Berryessa Rd	24,500	Major Arterial	4
Aborn Rd	Capitol Expwy	Rock Water Ln	41,400	Major Arterial	6
Almaden Expwy	Foxchase Dr	Blossom Hill Rd	68,200	Expressway	7
Almaden Expwy	Lillian Wy	Cloverhill Dr	36,000	Expressway	4
Almaden Expwy	Old Almaden Rd	Lincoln Ave	34,600	Expressway	8
Almaden Rd	Vine St	Almaden Expwy	21,300	Collector	4
Alum Rock Ave	Capitol Ave	Sierra Vista Pl	38,100	Minor Arterial	4
Bailey Ave	McKean Rd	Santa Teresa Blvd	3,800	Minor Arterial	2
Bailey Ave	Monterey Rd	US 101	10,100	Minor Arterial	6
Bascom Ave	Downing Ave	Leon Dr	23,500	Major Arterial	6[3]
Bascom Ave	Dry Creek Rd	Surrey Pl	19,600	Major Arterial	6
Bascom Ave	E Mozart Ave	Loretta Ln	23,400	Major Arterial	6
Bascom Ave	Nedbush Ter	Cherrystone Dr	27,100	Minor Arterial	4
Berryessa Rd	Capitol Ave	I-880	42,300	Major Arterial	4
Berryessa Rd	Cornish Ln	Commercial St	27,300	Major Arterial	4
Blossom Hill Rd	Eagles Ln	Judith St	28,100	Major Arterial	6
Blossom Hill Rd	Sanchez Dr	Winfield Blvd	29,900	Major Arterial	6
Blossom Hill Rd	Union Ave	Greenridge Ter	13,200	Minor Arterial	2
Branham Ln	Glenmont Dr	Pearl Ave	19,400	Major Arterial	6
Brokaw Rd	I-880	Ridder Park	45,000	Major Arterial	6
Camden Ave	Coleman Rd	Hicks Rd	22,800	Major Arterial	6
Camden Ave	Curtner Ave	Erin Wy	48,900	Major Arterial	6
Camden Ave	Leigh Ave	Hillsdale Ave	38,900	Major Arterial	6
Capitol Ave	Gay Ave	Madden Ave	14,900	Major Arterial	4
Capitol Ave	Montague Expwy	Cropley Ave	21,000	Major Arterial	5
Capitol Ave	Sierra Rd	Old Post Wy	12,800	Major Arterial	4
Capitol Expw	Old Almaden Rd	Pearl Ave	30,000	Expressway	6
Capitol Expwy	Cunningham Ave	Tully Rd	51,200	Expressway	8

TABLE 2
EXISTING ROADWAY SEGMENT AVERAGE DAILY TRAFFIC

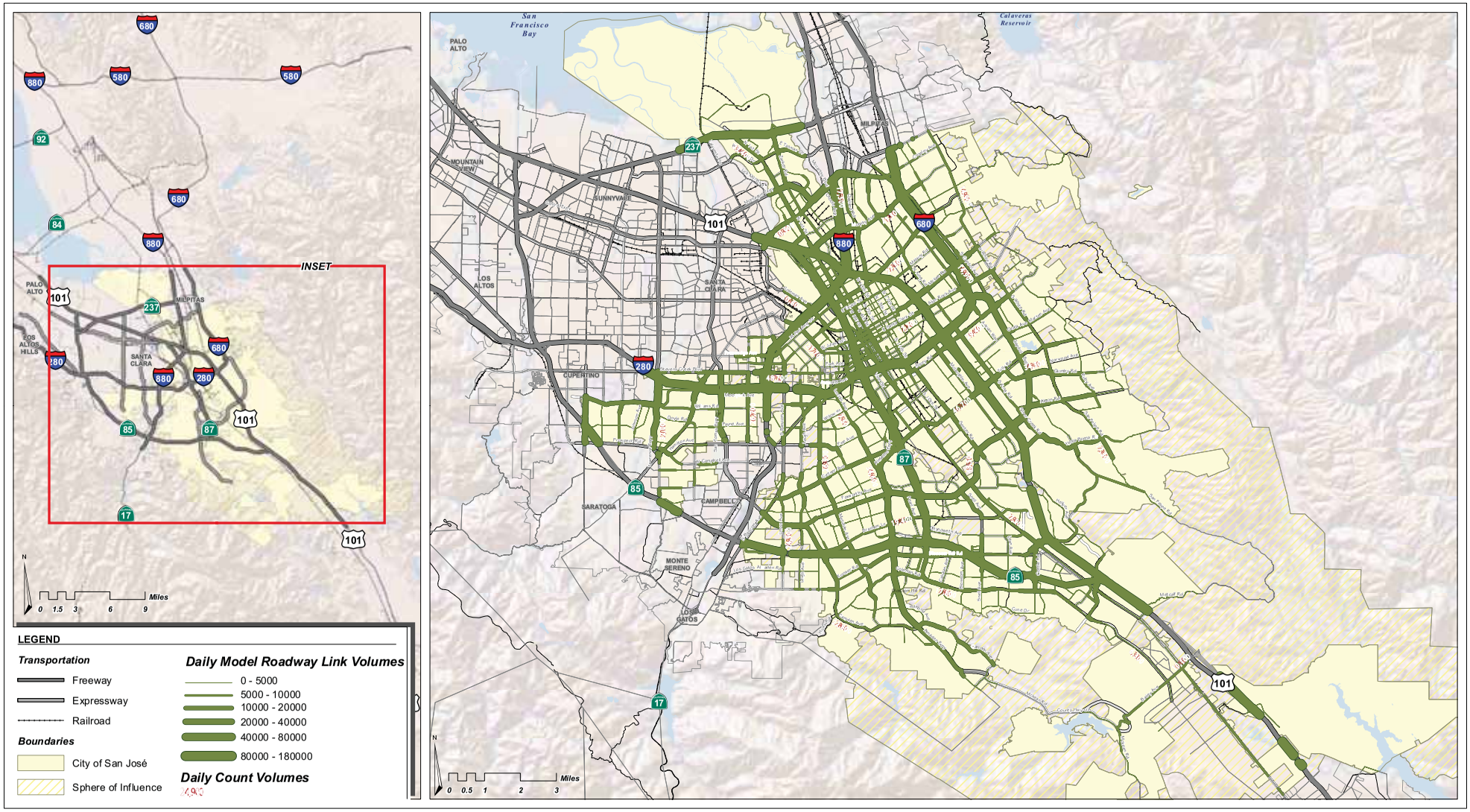
Roadway Segment	Location[1]		ADT[2]	Roadway Type	Number of Lanes
Capitol Expwy	I-680	Camas Ave	72,500	Expressway	6
Capitol Expwy	Seven Trees Blvd	Monterey Rd	48,500	Expressway	6
Capitol Expwy	Silver Creek Rd	Aborn Rd	58,400	Expressway	8
Coleman Ave	Brokaw Rd	Airport Blvd	30,600	Major Arterial	4
Curtner Ave	Cherry Ave	Nola Dr	18,700	Minor Arterial	4
East Brokaw Rd	Zanker Rd	Rogers Ave	37,300	Major Arterial	6
Guadalupe Pkwy	US 101	Orchard PkWy	22,300	Minor Arterial	4
Hale Ave	Kalana Ave	Palm Ave	4,500	Collector	2
Hamilton Ave	Hwy 17	Bascom Ave	53,000	Major Arterial	6
Hedding St	Ruff Dr	SR 87	9,100	Minor Arterial	4
Hostetter Rd	Automation Pkwy	Rue Avati	41,300	Major Arterial	6
Julian St	21st St	24th St	16,600	Minor Arterial	2
King Rd	Havana Dr	Cunningham Ave	21,700	Minor Arterial	4
King Rd	St James St	Wilshire Blvd	16,100	Minor Arterial	3[3]
Lawrence Expwy	Doyle Rd	Prospect Rd	32,000	Expressway	6
Leigh Ave	Dry Creek Rd	Bent Dr	18,200	Minor Arterial	4
Lincoln Ave	Minnesota Ave	Brace Ave	17,500	Minor Arterial	4
Mabury Rd	Capitol Ave	Cedarville Ln	15,300	Minor Arterial	2
Mabury Rd	Educational Park	Jackson Ave	14,600	Minor Arterial	4
Mabury Rd	Lenfest Ave	Taylor St	14,900	Minor Arterial	2
Market St	San Pedro St	SR 87	16,500	Minor Arterial	4
McKean Rd	Harry Rd	Hunters Hill Rd	6,200	Minor Arterial	2
McKee Rd	Capitol Ave	I-680	52,600	Major Arterial	6
Meridian Ave	Dry Creek Rd	Campbell Ave	26,900	Minor Arterial	4
Meridian Ave	Southwest Expwy	Fruitdale Ave	34,900	Minor Arterial	4
Montague Expwy	Guadalupe River	Orchard Dr	62,500	Expressway	6
Montague Expwy	O'Toole Ave	I-880	65,300	Expressway	8
Monterey Rd	Bellevue Ave	San Jose Ave	31,900	Major Arterial	6
Monterey Rd	Bouganvilla Dr	Branham Ln	27,900	Major Arterial	6
Monterey Rd	Kalana Ave	Palm Ave	9,200	Minor Arterial	4
Monterey Rd	Metcalf Rd	Blanchard Rd	6,600	Minor Arterial	4
Monterey Rd	SR 85	Bernal Rd	12,600	Major Arterial	4
Moorpark Ave	Borina Dr	Castlewood Dr	9,300	Minor Arterial	4
Morrill Ave	Hostetter Rd	Cataldi Wy	13,200	Collector	3[3]
Oakland Rd	Montague Expwy	Atteberry Ln	17,500	Major Arterial	7[3]
Piedmont Rd	Penetencia Creek Rd	Noble Ave	16,900	Minor Arterial	3[3]
Quimby Rd	Capitol Expwy	Keppler Dr	34,300	Minor Arterial	4[3]
San Carlos St	SR 87	Almaden Rd	11,900	Minor Arterial	4
San Felipe Rd	Heartland Wy	Metcalf Rd	400	Collector	2
San Felipe Rd	Yurba Buena Rd	Park Estates Way	17,300	Minor Arterial	4

TABLE 2
EXISTING ROADWAY SEGMENT AVERAGE DAILY TRAFFIC

Roadway Segment	Location[1]		ADT[2]	Roadway Type	Number of Lanes
San Tomas Expwy	Williams Rd	Payne Ave	37,500	Expressway	6
Santa Clara St	19th St	17th St	17,200	Minor Arterial	4
Santa Clara St	Almaden Rd	SR 87	26,700	Minor Arterial	4
Santa Teresa Blvd	Bayliss Dr	Laguna Seca Creek	6,300	Major Arterial	2
Santa Teresa Blvd	Chesbro	Indian Ave	17,800	Major Arterial	6
Santa Teresa Blvd	Miyuki Dr	San Ignacio Ave	17,900	Major Arterial	6
Santa Teresa Blvd	SR 85	Thornwood Dr	50,100	Major Arterial	6
Saratoga Ave	Los Felice Dr	Country Ln	31,500	Major Arterial	4
Saratoga Ave	Moorpark Ave	I-280	61,100	Major Arterial	6
Senter Rd	Dadis Wy	Lewis Rd	25,300	Major Arterial	5[3]
Silver Creek Valley Rd	US 101	Monterey Rd	54,000	Major Arterial	4
Southwest Expwy	Leigh Ave	La Barbera Dr	15,100	Major Arterial	4
Stevens Creek Blvd	I-880	Wainright Ave	48,700	Major Arterial	4
Story Rd	12th St	Senter Rd	24,700	Major Arterial	6
Story Rd	Capitol Expwy	Sollmar Dr	40,800	Minor Arterial	4
Story Rd	King Rd	Bal Harbor Wy	29,400	Major Arterial	6
Story Rd	US 101	Knox Ave	37,500	Major Arterial	6
Tasman Dr	Guadalupe River	Renaissance Dr	17,700	Major Arterial	4
Tasman Dr	McCarthy Blvd	Cisco Wy	25,900	Major Arterial	5
The Alameda	I-880	Alameda Wy	32,700	Minor Arterial	5[3]
The Alameda	Martin Ave	Julian St	21,700	Minor Arterial	4
Trimble Rd	Junction Ave	Montague Expwy	17,500	Major Arterial	6
Trimble Rd	Orchard Pkwy	De La Cruz Blvd	30,900	Major Arterial	6
Tully Rd	Brahms Ave	Quimby Rd	36,100	Major Arterial	6
Tully Rd	Capitol Expwy	Glen Hanleigh Dr	31,000	Major Arterial	6
Tully Rd	Galveston Ave	La Rasione Ave	46,700	Major Arterial	6
Union Ave	SR 85	Logic Dr	24,900	Minor Arterial	4
White Rd	Mt McKinley Dr	Mt Vista Dr	24,300	Minor Arterial	4
White Rd	Stevens Ln	Westbranch Dr	23,900	Major Arterial	7[3]
Winchester Blvd	Fireside Dr	Greentree Wy	26,200	Major Arterial	5
Winchester Blvd	Tisch Way	I-280	33,900	Major Arterial	6
Yerba Buena Rd	Baronet Ct	Chisin St	26,000	Minor Arterial	4
Zanker Rd	SR 237	Holger Wy	21,700	Major Arterial	6

Notes:
1. Major roadways nearest the count location.
2. Average Daily Traffic (ADT) volume based on traffic counts collected May 2008.
3. Roadway provides a center two-way left-turn lane.

Source: Fehr & Peers, 2008.



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Average Daily Traffic Volumes
Figure 2

Travel Screenlines

The San José travel demand forecasting model was used to calculate travel across various screenlines within and around the City. A total of 27 screenlines were analyzed. The analysis process for screenlines is discussed in the Methodology and Assumptions section of this report.

Under existing conditions, approximately 12 percent of screenline links in the AM peak hour and 17 percent of links in the PM peak hour operate deficiently. These results are presented in **Appendix A**.

Mode Share

The San José travel demand forecasting model was used to calculate existing peak period mode share. The methodology used for this process is discussed in the Methodology and Assumptions section of this report.

As shown in **Table 3**, the automobile serves as the primary mode of transportation in San José, followed by walking, transit, and bicycle.

TABLE 3
EXISTING JOURNEY TO WORK MODE SHARE

Mode	Number of Person Trips and Percent Mode Share for all Purposes
Drive Alone	682,000 79%
Shared Ride 2	101,000 12%
Shared Ride 3+	34,000 4%
Auto Subtotal	817,000 95%
Transit	29,000 3%
*Drive to/from Transit**	*8,000*
*Walk to/from Transit**	*49,000*
Bicycle	6,000 1%
Walk	11,000 1%

Note: Although work trips may occur at any time of the day, a majority of trips to work occur during the morning peak period of 6:00 AM to 10:00 AM.

* Walk to/from Transit and Drive to/from Transit trips are not included in the mode share percentages. Note that all non-auto access to transit is considered a Walk trip.
The values shown have been rounded for presentation purposes.

Source: Fehr & Peers, 2010.

Daily Vehicle Miles Traveled

The San José travel demand forecasting model was used to calculate daily motor vehicle trips, vehicle miles traveled, and average trip length. The methodology used for this process is discussed in the Methodology and Assumptions section of this report.

Table 4 shows the existing daily vehicle trips, vehicle miles traveled, and average trip length associated with development within the City. Note that VMT does not reflect vacancies in any land use.

Existing land use based VMT per service population is 14.62 vehicle miles per person per day. These results are generally consistent with other adjacent communities in the South Bay.

TABLE 4
EXISTING DAILY VEHICLE TRIPS, VEHICLE MILES TRAVELED, & AVERAGE TRIP LENGTH

Vehicle Trips (VT)	2,343,000 trips
Vehicle Miles of Travel (VMT)	19,807,000 vehicle-miles
VT per Service Population	1.73 trips per person
Average Trip Length (VMT/VT)	8.45 miles
VMT per Service Population	14.62 vehicle-miles per person

Notes: VMT ratio calculations are "land use based" VMT which accounts for all trips beginning or ending in San Jose but excludes "through trips" that only pass through the City.
These values do not include drive to school or drive to transit trips.
The values shown have been rounded for presentation purposes.
Service Population is defined as sum of total residents plus jobs in the City.
Source: City of San Jose, 2010.

Transit Priority Corridors

The Proposed General Plan places a strong emphasis on increased transit utilization including fixed route bus service. To that end, 14 transit priority corridors were evaluated for the purpose of this analysis and are presented in **Table 5**.

The San José travel demand forecasting model was used to calculate congestion on transit priority corridors. The methodology used for this process is discussed in the Methodology and Assumptions section of this report.

TABLE 5
TRANSIT PRIORITY CORRIDORS EXISTING CONDITIONS

Roadway Segment	Cross Street	Cross Street	Distance (Miles)	AM Peak Hour Travel Speed (MPH)
				Existing Conditions
2nd St.	San Carlos St.	St James St.	0.6	11.5
Alum Rock Ave.	Capitol Ave.	US 101	3.4	20.0
Camden Ave.	SR 17	Meridian Ave.	5.2	24.0
Capitol Ave.	S. Milpitas Blvd.	Capitol Expwy.	7.6	24.1
Hillsdale Ave./ Capitol Expwy.	Capitol Ave.	Meridian Ave.	19.8	28.6
E. Santa Clara St.	US 101	Delmas Ave.	4.6	20.4
Meridian Ave.	Park Ave.	Blossom Hill Rd.	12.2	25.5
Monterey Rd.	Keyes St.	Metcalf Rd.	18.2	24.6
First St.	SR 237	Keyes St.	17.2	22.6
San Carlos St.	Bascom Ave.	SR 87	4.2	24.3
Stevens Creek Blvd.	Bascom Ave.	Tantau Ave.	8.2	23.1
Tasman Dr.	Lick Mill Blvd.	McCarthy Blvd.	5.0	24.3
The Alameda	Alameda Way	Delmas Ave.	4.2	22.6
W. San Carlos St.	SR 87	Second St.	1.3	19.9

Note: The values shown have been rounded for presentation purposes.
Source: Fehr & Peers, 2010.

e. Public Transportation

Given San José's central location in the heart of Silicon Valley, it is served by a multitude of public transit options including fixed route standard and community bus service, a Bus Rapid Transit (BRT) line, light rail service and commuter rail service. The existing transit systems are illustrated on **Figure 3** and described in more detail below.

VTA Bus Transit Service

VTA is an independent special district responsible for bus, light rail, and paratransit operations, congestion management, highway improvement projects, and countywide transportation planning in Santa Clara County. VTA is both a transit provider and a multi-modal transportation planning organization involved with transit, highways, roadways, bikeways and pedestrian facilities. VTA operates bus service in Santa Clara County. As of August 2010, there are 52 local routes, four limited stop routes, three shuttle routes, and twelve express routes in the county. A majority of the routes serve the City of San José. Most bus routes typically operate along major arterial corridors. There are relatively straight, evenly spaced routes that operate from early morning into the late evening.

The top 15 VTA bus routes, in order of highest ridership in 2008, are routes 22, 23, 25, 70, 522, 66, 68, 26, 64, 55, 72, 60, 77, 73, and 71. These routes serve a total of 24 million passengers per year. The ridership of the top 15 routes accounts for approximately 73 percent of the total VTA bus ridership.

Bus Rapid Transit (BRT)

Bus Rapid Transit (BRT) provides high quality rapid transit service with rubber-tire buses that is more flexible than fixed-guideway systems such as steel-wheel trains. There are two types of BRT service, BRT 1 and BRT 2, which are distinguished based on their capital and infrastructure requirements. BRT 1 is a premium level bus service, with higher operating speeds, greater reliability, and fewer stops than local bus service. VTA's current Rapid 522 is an example of BRT 1 type service. BRT 2 requires considerably higher capital investment than BRT 1 due to specialized or dedicated running ways, dedicated rail-like stations, transit signal priority related infrastructure, and passing lanes at stations to allow vehicles the flexibility to bypass stations.

VTA introduced Route 522 in July of 2005 to enhance transit use in the El Camino Real/The Alameda/Santa Clara Street corridor. The route was intended to travel on the same route as the local bus Route 22 but with fewer stops: 30 on route 522 compared to 112 for Route 22. This, along with signal priority, has enabled the route to have higher operating speeds and greater reliability. Both Routes 22 and 522 are in the top 15 lines in terms of ridership.

Highway 17 Express Bus Service

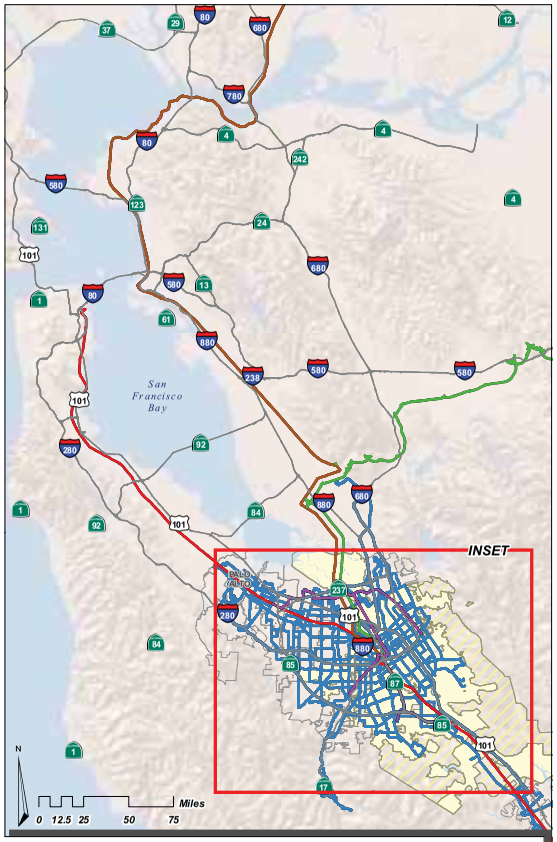
VTA and the Santa Cruz Metropolitan Transit District (SCMTD) jointly fund and oversee the operation of the Highway 17 Express bus service between the cities of Santa Cruz and San José. Service is provided from 5:00 am to 11:00 pm on weekdays and between 7:00 am and 10:00 pm on weekends with stops located in Santa Cruz, Scotts Valley, at San José Diridon Station, and in downtown San José (on weekdays only). The SCMTD reported an annual ridership of nearly 190,000 passengers for fiscal year 2005/2006.

<u>Light Rail, Intercity Passenger Commuter Rail Transit</u>

Light Rail Transit

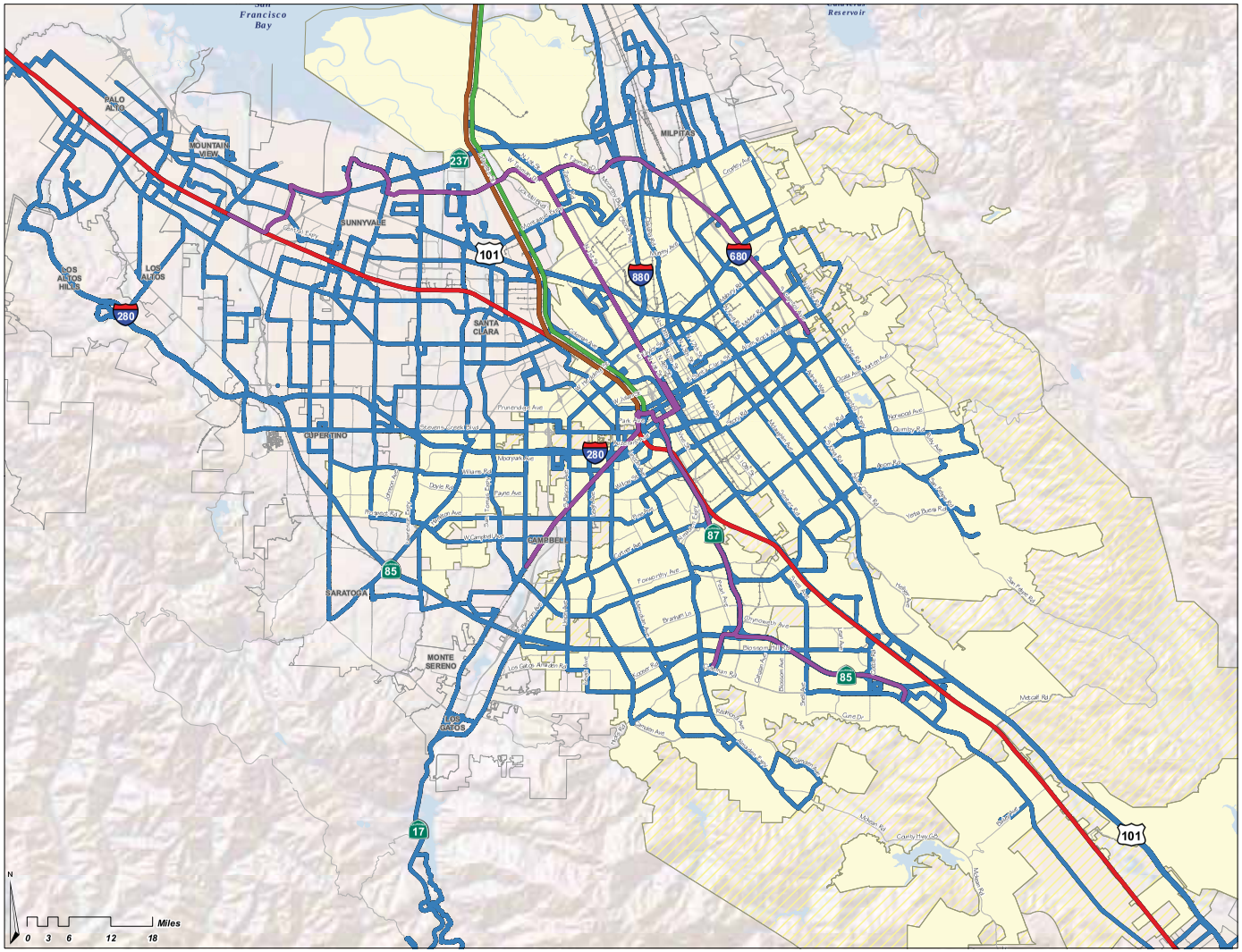
VTA also operates approximately 40 miles of light rail service in Santa Clara County. The system includes three light rail lines: Alum Rock-Santa Teresa, Mountain View-Winchester, and Ohlone/Chynoweth-Almaden. Stops are located between ¼-mile and 1.5 miles apart and service is provided via one- to three-car trains. Bicycles are permitted on all light rail vehicles at any time of day to facilitate multi-modal travel. Connections with Caltrain, ACE, and/or Capitol Corridor passenger rail service are provided at the Tamien and Diridon Stations within the City of San José, at the Great America Station in the City of Santa Clara, and at the Mountain View Station in the City of Mountain View.

The Alum Rock–Santa Teresa Line operates between the Santa Teresa Station in South San José and the Alum Rock Station in East San José. It is approximately 27 miles long and serves 38 stations. The Ohlone/Chynoweth-Almaden Line is a branch of the Alum Rock–Santa Teresa line. It operates between the Almaden Station in Almaden Valley and the Ohlone/Chynoweth Station in South San José. This line is slightly over one mile in length and serves three stations. The Alum Rock–Santa Teresa Line operates 22 hours a day, seven days a week. Weekday service operates on 15-minute headways from 5:00 am to 7:00 pm and 30 to 60-minute headways during weekday early morning and late evening periods.



LEGEND

Transportation	*Transit*
Roads	Altamont Commuter Express (ACE)
Railroad	Amtrak Capitol Corridor
Boundaries	Caltrain
City of San José	Valley Transportation Authority (VTA) Light Rail Lines
Sphere of Influence	Valley Transportation Authority (VTA) Bus Lines



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Existing Transit
Figure 3

Weekend and holiday service operates on 15-minute headways during most of the day, except in the early mornings and late evenings when headways are 30 to 60 minutes.

The Mountain View–Winchester Line operates between the Mountain View Station and the Winchester Station in Campbell. It is approximately 22 miles long and serves 37 stations, including the segment jointly served by the Alum Rock-Santa Teresa and Mountain View-Winchester Lines from the Convention Center Station in Downtown San José to the Tasman Station in North San José. This line operates approximately 19 hours a day on weekdays, and 18 hours on weekends. Weekday service operates on 15-minute headways during the peak commute hours, and 30-minute service the rest of the day except late evenings when headways are 60 minutes. Weekend and holiday service operates 30-minute headways during most of the day, except in the early mornings and late evenings when headways are 60 minutes.

The existing daily line ridership for the top 15 bus routes is approximately 72,900 and 28,600 for all light rail routes.

Caltrain Commuter Rail

Caltrain is owned by the Peninsula Corridor Joint Powers Board, operated under contract with Amtrak, and managed under contract with the San Mateo County Transit District (SamTrans). Caltrain operates 50 miles of commuter rail between San Francisco and San José, and limited commute service trains that serve Gilroy during weekday commute periods. On weekdays, Caltrain operates approximately 100 trains per day of local, limited stop, and Baby Bullet express services in both directions. Travel time between San José and San Francisco is approximately ninety minutes for local and limited stop services. Caltrain's Baby Bullet express service makes it possible to travel between San Francisco and San José in less than an hour.

Caltrain offers 22 weekday commute-hour bullet or limited stop trains, all of which serve Diridon Station and some of which serve Tamien Station. Other trains make all stops at San José Diridon Station and some trains make stops at the Tamien, Capitol, and Blossom Hill stations within the city of San José. San José Diridon Station is the busiest Caltrain station in the City of San José, while the Capitol Station serves the fewest number of patrons. On weekends, Caltrain operates approximately 30 trains per day with local stops only. These trains operate in both directions between San Francisco and San José Diridon Station. No stops are made at the other San José stations on weekends. At the City of San José stations, ridership has increased between the early 1990's until the end of the dot-com boom in the early 2000's. Then, ridership declined but began increasing again in the mid 2000's until a peak ridership level was reached in 2008/2009 partially due to high gasoline prices. In 2009, average Caltrain ridership was approximately 36,800 daily boardings, with 3,400 daily boardings occurring in San José.

Altamont Commuter Express (ACE)

The San Joaquin Regional Rail Commission (SJRRC) operates Altamont Commuter Express (ACE) commuter rail service of over 85 miles between Stockton and San José. Total ridership is over 700,000 passengers per year. It operates a limited number of trains per day with trains leaving Stockton in the morning and returning in the evening. Diridon Station is the only ACE stop within the City of San José.

Amtrak

Intercity Amtrak passenger rail service is provided at the San José Diridon Station. Routes served include the Capitol Corridor (described in further detail below) and Coast Starlight.

The Coast Starlight is a 1,400 mile multi-day intercity rail service connecting Seattle, Washington to Los Angeles through cities including Portland, Oregon; Sacramento, and Santa Barbara. Service is provided by one train each day per direction. Approximately 350,000 riders used this service in 2007.

Amtrak provides intercity rail service on the Capitol Corridor, a 170-mile rail service connecting Sacramento to San José via Oakland. The service provides a limited number of daily round trips along the route. The Capitol Corridor stops only at Diridon Station within San José. Approximately 1.45 million riders rode on the Capitol Corridor route in 2007.

San José Diridon Station

San José Diridon Station is an intermodal transit center located in downtown San José on Cahill Street near the HP Pavilion Arena. Bus, commuter rail, intercity rail, and light rail services are all provided at this station. Bus service is provided on local, express, and shuttle routes. This station serves VTA Bus Routes 63, 64, 65, 68, 168, 180, and 181. Routes 22 and 522 are located within a block of the station. The station also serves the Highway 17 Express route, Downtown Area Shuttle (DASH), and Monterey-San José Express Route MST55.

Commuter rail service at Diridon Station is provided by Caltrain and Altamont Commuter Express (ACE). Diridon Station has the fourth largest number of boardings of any Caltrain station in the system, serving approximately 2,700 daily Caltrain riders. San José Diridon Station accounts for seven percent of ridership on the ACE system, which is the third lowest ridership volume of the nine stations. (Within Santa Clara County the Great America ACE stop has the highest ridership.) Intercity rail is provided by Amtrak on the Coast Starlight route and by the Capitol Corridor. Approximately 190,000 annual boardings and alightings occurred at this station on these two services.

Light rail transit is provided at this location by VTA on the Mountain View-Winchester line. This station has over 800 boardings and alightings per day for light rail, the fourth highest figure on the Mountain-View Winchester line, excluding the shared stations on the 1st Street corridor. Including the 1st Street corridor, the station has the 14th highest number of boardings and alightings.

The City was awarded a Station Area Planning grant in 2008 from the Metropolitan Transportation Commission (MTC) to study the San José Diridon Station area. The grant is being used to define a specific level of development, identify station area improvements, and conduct an environmental review for the areas around Diridon Station. It also will identify a station design to accommodate future transit service needs, including planned BART and High Speed Rail service.

f. Pedestrian and Bicycle Circulation

The mild climate, relatively flat terrain, and proximity of many destinations provide an ideal environment for walking and bicycling in San José. While only about two percent of commute trips are walking or bicycling trips, when accounting for all travel purposes approximately eight percent of peak period trips in San José are made on foot or via bicycle.[2]

[2] Based on results from the City of San Jose's *Travel Demand Forecasting Model*, two percent of peak period trips are bicycle trips and six percent of peak period trips are walking trips. These results are consistent with data from the regional Bay Area Travel Survey (2000).

Pedestrian Circulation

Pedestrian facilities improve safety for pedestrians and can also encourage the use of alternative modes of transportation. These facilities include sidewalks, paths, pedestrian bridges, crosswalks, and pedestrian signals with crosswalks at signalized intersections to accommodate pedestrian circulation. In California, it is legal for pedestrians to cross any street, except at unmarked locations between immediately adjacent signalized crossings or where crossing is expressly prohibited. Marked crossings reinforce the location and legitimacy of a crossing. In pedestrian-friendly cities, crossing locations are treated as essential links in the pedestrian network.

The current General Plan encourages pedestrian travel as a viable mode of movement between high-density residential and commercial areas throughout the City and in activity areas such as schools, parks, transit stations, and in urban areas, particularly the Downtown Core Area and neighborhood business districts by providing safe and convenient pedestrian facilities.

Most streets in the overall Citywide street network include at least a four-foot wide sidewalk on one or both sides. The "Land Use and Circulation Element" of the current San José 2020 General Plan identifies a number of planned infrastructure improvements for the pedestrian and bicycle networks. The Pedestrian Priority Areas Map in the current San José 2020 General Plan identifies pedestrian "corridors" and "core areas" where high levels of pedestrian activity currently exist or are likely in the future. The plan prioritizes improvements to the physical environment which encourage higher levels of walking in these types of areas:

- Pedestrian Corridors include the Transit-Oriented Development Corridors and neighborhood shopping streets. The Pedestrian Corridors are intended to increase neighborhood connectivity, and linkages to transit stations or Pedestrian Cores. Examples of pedestrian corridors located within the City are Lincoln Avenue, Winchester Boulevard, and Tully Road.

- Pedestrian Cores include the Downtown Core and Frame Areas, areas around rail stations, and the Planned Communities of Rincon South, Jackson-Taylor, Midtown, Tamien, and Communications Hill. For light rail stations, the area is defined by a circle with a radius of 2,000 feet (or a little more than one-third of a mile). For Caltrain, BART, or other heavy rail stations, the area is defined by a circle with a radius of 3,000 feet (or a little more than one-half of a mile).

Walkability

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes wide sidewalks, a mix of land uses such as residential, employment, and shopping opportunities, a limited number of conflict points with vehicle traffic, and easy access to transit facilities and services. In the City of San José, walkability varies substantially. In Almaden Valley, some streets have relatively low traffic volumes and include an extensive array of sidewalks, but shopping and employment opportunities within a reasonable walking distance of ½-mile to a mile are limited. In Downtown San José, residents of the several new condominium towers along the Santa Clara, San Fernando, and 1st Street corridors are able to walk or bike to grocery stores and office buildings within a 10- to 15-minute period.

Many of the City's schools are located within residential neighborhoods on lower volume roadways, which allow students of all ages to regularly walk or bike to their campus. Similarly, neighborhood and community shopping centers located on major and minor arterial roadways surrounding neighborhoods can be accessed via residential collector streets with sidewalks. Pedestrian signal heads at higher volume intersections aid in pedestrian street crossings, and the City is installing new ramps at numerous intersections to meet the access demands of a diverse population and to enhance the overall pedestrian experience.

Planning efforts are underway to convert some of the one-way street couplets in the downtown area to two-way streets. These conversions will reduce automobile travel speeds, which will in turn improve pedestrian access and safety, especially at intersections. The City has also identified Special Planning Areas and Transit Corridors where intersection modifications that increase automobile capacity will not be implemented. Existing street cross sections will be maintained to minimize exposure of pedestrians and cyclists to vehicles. Funding that would have been used to modify an intersection or widen a street would instead be used to provide pedestrian, transit and bicycle enhancements in the adjacent area.

Bicycle Circulation

Bicycles are a convenient means of transportation for short trips, especially those less than two miles in length. According to the U.S. Department of Transportation, one-quarter of all trips in this country are under one mile; about 40 percent of all trips are two miles or shorter.

The City's current General Plan calls for the development of a safe, direct, and well-maintained transportation bicycle network that links residences, employment centers, schools, parks and transit facilities. The transportation bicycle network promotes bicycling as an alternative mode of transportation for both commuting and recreation. The City has a designated Bicycle and Pedestrian Coordinator on staff in the Department of Transportation who is responsible for overseeing the implementation and maintenance of a comprehensive bikeway system, as well as coordinating bike linkages to adjacent communities. The City's Bike Plan 2020, was adopted in 2009 and provides a foundation for enhancing the City's bikeway network and increasing the mode share of bicycle travelers. The Bike Plan lays out specific goals to improve bicycle access and connectivity in San José by the year 2020. These goals are further discussed in the Regulatory Environment section of this report.

A description of the bicycle facilities in San José is presented below and **Figure 4** shows the location of existing bicycle facilities within the City.

Typical California standards (Described in Chapter 1000: Bikeway Planning and Design of the Caltrans *Highway Design Manual, 2001*) provide for three distinct types of bikeway facilities, as generally described below.

- **Bike paths (Class I)** are paved pathways separated from roadways that are designated for the exclusive use of bicycles and pedestrians. In general, bike paths serve corridors not served by streets and highways or where sufficient right-of-way exists to allow such facilities to be constructed away from the influence of parallel streets and numerous vehicle conflicts. Sample facilities include the Guadalupe River Trail, Los Gatos Creek Trail, and Coleman Avenue Trail, all of which include asphalt or concrete surfaces.

- **Bike lanes (Class II)** are lanes for bicyclists adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Bike lanes are usually constructed to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. Sample facilities include bike lanes on Curtner Avenue, Leigh Avenue, and San Fernando Street through the Downtown area.

- **Bike routes (Class III)** in general are located on low traffic volume streets that provide alternate routes for recreational, and in some cases, commuter and school-age cyclists. These facilities are designated Class III and are signed for bike use, but have no separated bike right-of-way or lane striping. Bike routes serve either to: (1) provide continuity to other bicycle facilities, or (2) designate preferred routes through high demand corridors. Sample bike routes include Meridian Avenue, Blossom Hill Road west of Almaden Expressway, and King Road. In the case of San Fernando Street between SR 87 and the Diridon Transit Station where additional width for bike lanes was not available, the City has installed "sharrow" symbols on the pavement to designate the appropriate travel path for cyclists and

increase driver awareness of bicycles. “Sharrows” are roadway stencils commonly used on Class III routes to indicate where bicycles and automobiles share the same roadway space.

Trails and Pathways

San José extends across the Santa Clara Valley floor and has many exceptional views of the surrounding hillsides. In addition, many creeks and ot her natural wooded areas across the valley floor providing natural linear pathways. These attributes provide the City with many scenic and recreation opportunities. Trails and pathways create outdoor recreational facilities for bicyclists, pedestrians, and other recreational activities.

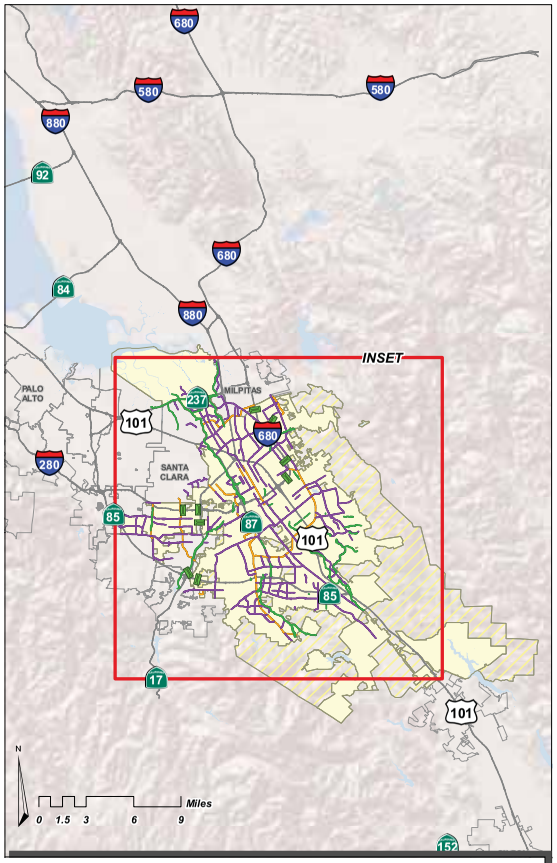
San Francisco Bay Trail

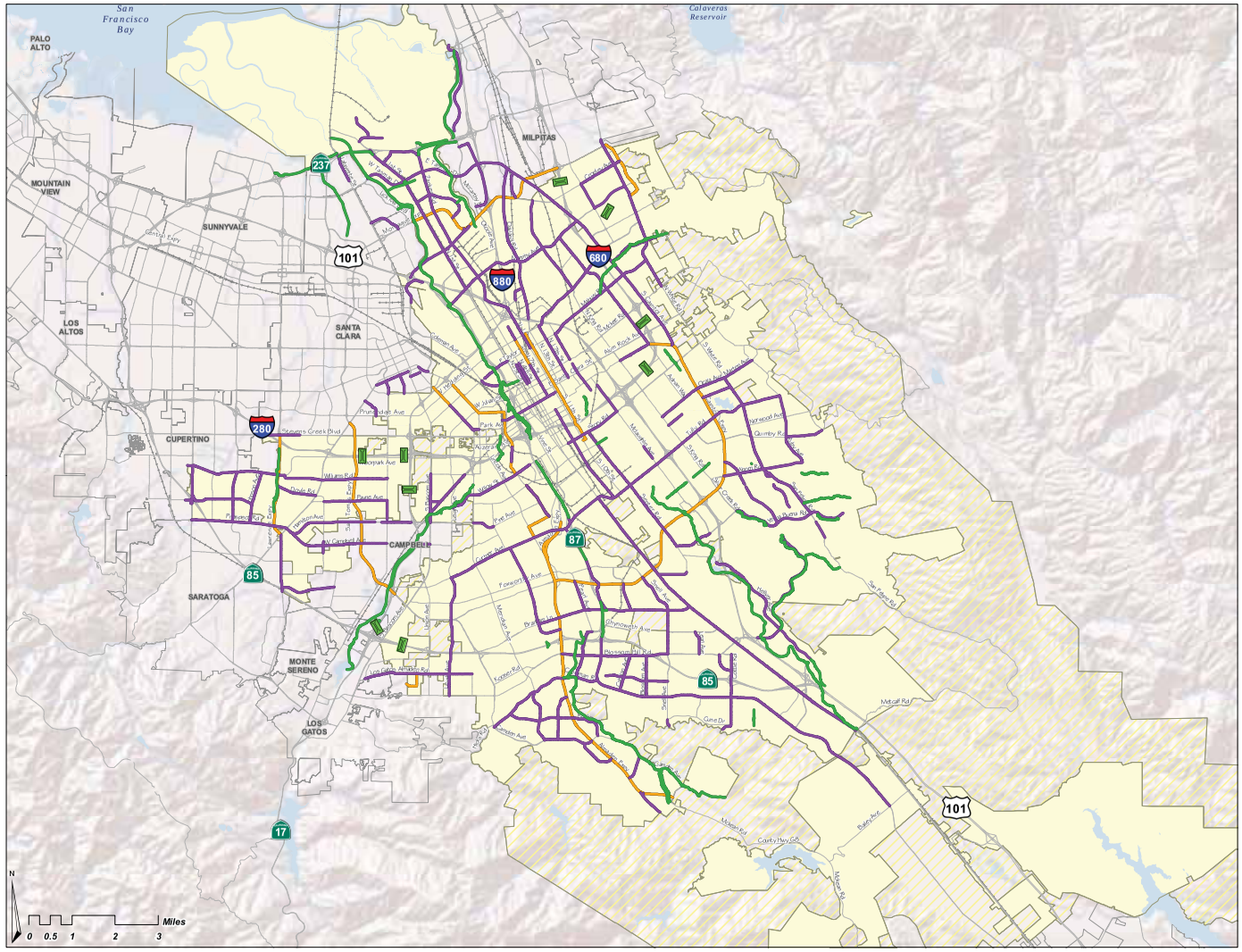
The San Francisco Bay Trail is a planned 400-mile paved path network around San Francisco Bay that can be used by pedestrians and bicyclists. Both off-street and on-street segments of the trail in the Alviso neighborhood area of San José have already been completed. However, these segments of the Bay Trail are not currently connected to other portions of the trail in Milpitas and Sunnyvale. Once the Bay Trail is complete, it will provide for recreational and commute travel by both bicyclists and pedestrians.

Other City Trails

As shown on **Figure 4** several hundred miles of bicycle facilities are currently provided in the City, with 34 miles designated as Class I multi-use trails, approximately 150 miles designated as Class II bicycle lanes, and nearly 20 miles designated as Class III bicycle routes. Additionally, the City of San José has nine (9) pedestrian-bicycle freeway overcrossings. Although many other roadways are suitable for bicycling, they are not designated bicycle facilities and do not meet the standard facility definitions; thus, they are not shown on **Figure 4**. Overall, bike accessibility in San José is considered reasonable but completion of future facilities is imperative to providing a system that will encourage additional riders to help achieve the current General Plan Update’s Transportation Policy goal of doubling the share of bicyclists each decade.

The most prominent trails in the City are Coyote Creek Trail and Los Gatos Creek Trail. Coyote Creek trail is partially completed in 3 segments totaling 18.7 miles. The north segment is from Highway 237 to Montague Expressway. The Downtown segment is from William Street to Highway 280, in Selma Olinder Park and the south segment is from Tully Road to Morgan Hill, near Anderson County Park. The Coyote Creek Trail is one of the City's longest trail systems, and several City and County parks can be accessed from the trail. The Los Gatos Creek trail is 11.2 miles in length of which 1.9 miles are in San José. Near downtown, the trail extends from San Carlos Street to Lonus Street with an under-crossing at Highway 280 and a bridge connecting the trail at Gregory Street. The larger section begins at Meridian Avenue, near Curci Drive. The trail follows the Los Gatos Creek, with access points to the surrounding residential neighborhoods and retail / commercial developments.





LEGEND

Transportation

- Roads
- Railroad

Boundaries

- Boundaries
- Sphere of Influence

Pedestrian and Bicycle Over/Under Crossing

- Existing Over/Under Crossing

Bicycle Facilities

- Class I Bicycle Path
- Class II Bicycle Lane
- Class III Bicycle Route

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SJ08-1037

Existing Bikeways Network

Figure 4

g. Rail/Highway Freight

Truck Routes

Truck travel is generated for a variety of reasons including the transport of raw materials for processing and the movement of finished goods and foods to retail establishments. Over the last 30 years, heavy industry uses have declined in San José, while less truck-intensive uses such as research & development activities have occupied and grown into the industrial areas. Several areas continue to serve heavy industrial truck or automotive uses including the areas of North San José, Berryessa International Business Park, East Gish, Mabury, Monterey Business Corridor, Senter Road, Evergreen Campus industrial, New and Old Edenvale, Coyote Valley; the Norman Y. Mineta San José International Airport; and to a lesser degree, the area bounded by Coleman and Stockton Avenues south of I-880.

Trucks account for about five to eight percent of the traffic on US 101, close to six percent of traffic on SR 17, SR 237, and I-680; while trucks account for about two to three percent of the traffic on the other state operated facilities. SR 85 carries the lowest percentage of trucks with less than one percent, since commercial truck traffic is limited to vehicles less than nine tons of gross weight.

The City of San José does not have established truck routes; though the City's Municipal Code Section 11.96 establishes roadways on which heavy truck traffic is prohibited. The Municipal Code lists 88 roadway segments on which truck traffic for the movement of vehicles exceeding a maximum gross weight of five (5) tons is restricted and an additional 23 roadways on which vehicles exceeding seven (7) tons are prohibited. The City has adopted policies to encourage truck traffic to use state freeways, county expressways, and six-lane arterial streets.

The City recognizes the importance of vehicle connections between industrial areas and regional highways and expressways. These connections accommodate heavy truck traffic to minimize impacts to neighborhoods and ensure the timely delivery of goods and materials to support economic development.
Union Pacific Rail

Three main railroad lines are owned and used by Union Pacific Railroad for freight movement within the City. Each line is summarized below.

The **Warm Springs Subdivision Line** runs from Milpitas to the San José Newhall Yard located just west of the Norman Y. Mineta San José International Airport. Monday through Friday, one train leaves Milpitas in the morning at 6:00 am and another at 9:00 am. The trains then return early in the afternoon. Most rail crossings are grade separated, though this line has approximately 10 at-grade crossings, which are primarily located in North San José.

The **Vasona Corridor (Kaiser Permanente Plant) Line** runs from Milpitas to San José and along the Vasona light rail line. Trains leave Milpitas Mondays, Wednesdays, and Fridays at 9:00 am and 11:00 am, and the trains return at around 2:00 pm. Similar to the Warms Springs Subdivision Line, this Line has approximately 20 at-grade crossings.

The **Monterey Corridor Line** runs from San José to Los Angeles via Salinas and Santa Barbara. Approximately 15 to 20 trains travel through San José on a daily basis. Within the City, the line primarily is parallel to Monterey Road. There are six at-grade crossings in South San José, and the remaining crossings in San José are grade separated.

The **Western Pacific Line** runs from Fremont, through east San José, then along the Monterey business corridor to Willow Glen and terminates on The Alameda. The portion of this line from the City of Milpitas to approximately Mabury Road in San José was purchased by VTA for the future BART extension. Most of this line is currently out of operation with the exception of the segment north of Julian Street, which is still used for limited freight movement. On the portion of the line that is out of operation, some of the railroad tracks have been removed.

h. Seaports & Airports

Seaports

City controlled access to San Francisco Bay is provided via the Alviso Slough and Guadalupe Slough north of SR 237. These sloughs border the Don Edwards San Francisco Bay National Wildlife Refuge and are crossed by segments of the San Francisco Bay Trail. Large-scale shipping is not considered feasible through these access points due to the shallow waters but small vessel usage has been considered with regard to development of an expanded Bay Area ferry service. The Water Emergency Transit Authority has in the past considered a port in San José, but current plans do not include these waterways.

Aviation

Norman Y. Mineta San José International Airport

Norman Y. Mineta San José International Airport (SJC) is located approximately two miles north of downtown and is owned and operated by the City of San José. In 2009, approximately 8.3 million passengers per year traveled through this airport on 12 airlines. The airport includes a total of 28 gates: 14 gates in Terminal A, 2 gates in the International Arrivals Facility, and 12 gates in the newly opened Terminal B. Over 160 million pounds of freight, cargo, and mail pass through the airport every year. The airport averages approximately 260 commercial and 90 general aviation departures and landings daily on three runways: two for commercial flights and one for general aviation, business, and corporate aircraft. Daily operating hours are between 6:30am and 11:30pm. Due to a noise-based curfew, no flights are allowed between the hours of 11:30pm to 6:30am unless the aircraft does not exceed 89 decibels during takeoff or landing.

SJC is currently undergoing a major expansion and construction project. Terminal B opened in mid-2010 with 12 gates, dining concessions, and retail spaces. This terminal will also have new ticketing, baggage claim, and security services. Terminal A has been upgraded to increase the security checkpoint capacity, expand the ticket counters, add new concessions, and increase the departure gate lounge's passenger waiting space. Terminal C has been closed and will be demolished in late 2010. A new consolidated parking and rental car facility was also opened in 2010. This parking structure is across from Terminal B and will provide 3,000 spaces for all rental car operations at SJC, new rental car customer service counters, and 350 short term public parking spaces. The old rental car facility will be turned into additional parking and a parking lot will be constructed in 2011 on the site of the demolished Terminal C. Lastly, the roadways at the airport were improved to increase capacity and reduce vehicle delays. Terminal roadways were straightened and widened; new signage was installed; and new bypass roads, tunnels, and bridges allow for better circulation. A South Concourse on the site of the demolished Terminal C and a new future parking lot will connect to the south end of Terminal B, increasing the airport's total number of gates to 40.

Reid Hillview Airport (Santa Clara County)

Reid-Hillview Airport (RHV) is a general aviation facility located approximately four miles east of downtown San José and is owned and operated by the County of Santa Clara. Over 240,000 annual takeoffs and landings occur at this airport, and approximately 700 aircraft are based at the airport.

The County has deemed expansion of RHV beyond its current boundary as infeasible because the area surrounding the airport is built-out primarily with residential neighborhoods and the Eastridge Shopping Center. Therefore, only minor expansions will be able to be made within the airport's boundary, such as adding more hangars and adding minor extensions to the runways. The County has explored the idea of closing down the airport and selling the land for redevelopment; however, the County does not have any plans to change operations at this time.

i. Transportation Demand Management (TDM) Programs

Transportation Demand Management (TDM) programs are intended to reduce vehicle trips and parking demand by promoting the use of multi-modal transportation options. By implementing TDM programs, municipalities can use available transportation resources more efficiently. These programs can include a wide variety of measures such as shuttle services, transit pass subsidies, improved access to transit, park and ride facilities, and improved bicycle and pedestrian amenities among others. Below is a summary of the types of TDM measures currently provided in the City of San José.

Shuttle Service

Shuttle services are provided at a number of locations throughout the City of San José. Shuttles serve passengers traveling to and from downtown, Norman Y. Mineta San José International Airport, north San José, Edenvale, and various employers.

Downtown Area Shuttle (DASH)

DASH is a free shuttle that carries about 700 passengers every weekday to employment, business and school locations in Downtown San José. DASH serves the San José Diridon Station, thereby providing transfer connections from ACE, Caltrain, Amtrak, Highway 17 Express, Monterey-San José Express, and VTA bus and light rail service. Headways are approximately 5 to 35 minutes on weekdays only. DASH is operated by VTA with additional funding from the San José Downtown Association, the City of San José, and a Transportation Fund for Clean Air grant from the Bay Area Air Quality Management District.

The Airport Flyer (VTA Route 10)

The Airport Flyer provides service to the Norman Y. Mineta San José International Airport from both the Santa Clara Transit Center and the Metro/Airport light rail station. Headways are 15 to 35 minutes on weekdays and 15 to 60 minutes on weekends. This route serves approximately 380,000 passengers per year.

Free Employer-based Shuttles

Free employer-based shuttles are also provided. These shuttles are also open to the public. The Hitachi Shuttle provides service between the Blossom Hill Caltrain Station and the Hitachi campus via the Santa Teresa light rail station. Headways are 15 minutes during commute periods on weekdays only. The IBM Shuttle provides service between the corner of Santa Teresa Boulevard/Cottle Road and the IBM Silicon Valley Lab campus on Bailey Avenue via the Santa Teresa light rail station. Headways are 30 minutes during commute periods on weekdays only.

Private Employer Shuttles

Some companies in San José offer private shuttle service limited only to employees. An example of this type of shuttle is the Cisco Systems Intracampus Shuttle System that transports people between buildings on the Cisco campus.

Other Shuttles

ACE and VTA also sponsor free shuttles originating from the ACE Great America Station in the City of Santa Clara. The ACE Purple Shuttle provides service from the Great America Station to west Milpitas via Tasman Drive. The shuttle includes multiple stops in San José along Tasman Drive. Headways are between approximately 60 and 75 minutes during commute periods on weekdays only. The ACE Brown Shuttle provides service from the Great America Station in Santa Clara to the Montague Expressway/Seeley Avenue intersection in north San José. The shuttle provides multiple stops in San

José along Tasman Drive, 1st Street, River Oaks Parkway, Seeley Avenue, and Montague Expressway. Headways are between approximately 60 and 75 minutes during commute periods on weekdays only.

Transit Passes

Eco Pass

Eco Pass is an employer-sponsored annual pass that offers unlimited rides on all VTA bus and light rail services seven days a week. The Eco Pass is purchased by employers for all full-time employees. Employers pay an annual fee to provide the pass to full-time employees regardless of how many employees use the pass. A Residential Eco Pass is also available for purchase by residential communities of 25 or more units such as condominium, apartment, or townhouse developments. Similar to the employer sponsored Eco Pass, the Residential Eco Pass is purchased by residential communities for all residents. The communities pay an annual fee to provide the pass to all residents regardless of how many residents use the pass. *Go Pass* is an employer-sponsored annual pass that offers unlimited rides on Caltrain seven days a week through all zones. The Go Pass is purchased by employers for all full-time employees. Employers pay an annual fee to provide the pass to each full-time employee regardless of how many employees use the pass.

Clipper

Over two dozen transit providers operate in the nine-county Bay Area region. To make fare payment and transfers between different transit agencies easier, many Bay Area agencies are in the process of adopting the Clipper payment card (formerly Translink). Transit riders can use the Clipper card at rail transit stations or on buses. Upon use, the correct fare (including transfers and discounts) is automatically deducted from the Clipper card. Currently Clipper is accepted on Caltrain, BART, Muni, AC Transit, Dumbarton Express, and the Golden Gate Transit & Ferry Service. Clipper is scheduled to be available for VTA-provided services in late 2010.

Park and Ride Lots

Park & Ride Lots are locations where commuters can park their car and use another mode to complete their trip, usually via transit or carpool. San José has numerous park & ride lots with parking capacity ranging from 20 spaces at the River Oaks Parkway/1st Street intersection to over 1,100 spaces at the Santa Teresa light rail station. Almost all park & ride lots in San Jose are located at light rail transit stations.

Other TDM Elements

Numerous other elements are included in TDM programs that are in use by both public agencies and private employers in the City. While the City is supportive of a wide of array of measures, many of these are maintained and funded by private entities. Other notable TDM elements currently in use at certain locations within the City include:

- Secure bicycle parking
- Showers and changing rooms
- Charging for parking, or offering a cash allowance in lieu of a parking space
- Preferential carpool/vanpool parking
- Flexible work hours
- Guaranteed ride home programs

- On-site amenities (e.g., day care, ATM, dry cleaners)

In addition to the above elements, many large private employers in the City have designated TDM coordinator positions that help arrange transportation options for their employees.

III. REGULATORY FRAMEWORK

For the purposes of this discussion, a jurisdiction is a level of government (city, county, state, or federal) or regulatory authority (local, regional, state, or federal) responsible for some or all aspects of the planning, implementation, operations, and maintenance of transportation facilities and services in a defined area. The City of San José has jurisdiction over all City streets and City-operated traffic signals. The neighboring Cities of Santa Clara, Campbell, Los Gatos, Milpitas, and Morgan Hill have jurisdiction over local roadways within their respective jurisdictional boundaries. The California Department of Transportation (Caltrans) has jurisdiction over state facilities including I-280, I-680, I-880, US 101, SR 17, SR 82 (El Camino Real), SR 85, SR 87, and SR 237. Caltrans also has jurisdiction over on- and off-ramp intersections with local streets. The County of Santa Clara has jurisdiction over streets in unincorporated areas, as well as all of the County Expressways. Transit agencies operating within the City limits are VTA, Caltrain, ACE, and the Capitol Corridor. Several regional, state and federal agencies have jurisdiction over transportation planning and implementation of circulation improvements in San José, in addition to the City of San José.

Each agency or relevant planning document is described below.

1. FEDERAL REGULATORY FRAMEWORK

a. Americans with Disabilities (ADA) Act of 1990

Titles I, II, III and V of the ADA have been codified in Title 42 of the United States Code, beginning at section 12101. Title III prohibits discrimination on the basis of disability in “places of public accommodation” (businesses and non-profit agencies that serve the public) and “commercial facilities” (other businesses). The regulation includes Appendix A to Part 36 (Standards for Accessible Design) establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Examples of key guidelines include detectable warnings for pedestrians entering traffic where there is no curb, a clear zone of 48” inches for the pedestrian travel way, and a vibration-free zone for pedestrians.

b. Federal Highway Administration (FHWA)

The FHWA is a major agency of the United States Department of Transportation. In partnership with State and local agencies, the FHWA carries out Federal highway programs to meet the Nation’s transportation needs. The FHWA administers and oversees Federal highway programs to ensure that Federal funds are used efficiently.

2. STATE REGULATORY FRAMEWORK

a. California Department of Transportation (Caltrans)

Caltrans recommends a target LOS at the threshold between LOS C and LOS D for their facilities. If the location under existing conditions operates worse than the appropriate target LOS, then the existing LOS should be maintained. For purposes of this analysis, LOS will not be evaluated. In 2010, Caltrans’ Smart Mobility Framework was adopted and serves as a planning framework that helps to guide and assess how well plans, programs, and projects meet a definition of "smart mobility". It is applicable to various levels of plans, programs, or projects (e.g., Regional Transportation and Blueprint Plans, General Plans, corridor plans, specific development proposals, etc.) in all parts of the state (i.e., urban, suburban, and rural).

b. Statewide Transportation Improvement Program

The California Transportation Commission (CTC) administers transportation programming. Transportation programming is the public decision-making process, which sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multi-year period to transportation projects. The State Transportation Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources. The California Department of Transportation (Caltrans) manages the operation of State Highways in San José.

c. AB 32 and SB 375

With the passage of Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32.

In 2007, CARB adopted a list of early action programs that could be put in place by January 1, 2010. In 2008, CARB defined its 1990 baseline level of emissions, and by 2011 it will complete its major rule making for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms like the proposed cap and trade program, will take effect January 1, 2012.

On December 11, 2008, CARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are four major components to SB 375. First, SB 375 requires regional GHG emissions targets. CARB's Regional Targets Advisory Committee will guide the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the State. These targets, which MPOs may propose themselves, will be updated every eight years in conjunction with the revision schedule of housing and transportation elements.

Second, MPOs will be required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on eight-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Finally, MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the CTC. Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

3. REGIONAL REGULATORY FRAMEWORK

a. Metropolitan Transportation Commission (MTC)

The majority of federal, state, and local financing available for transportation projects is allocated at the regional level by the MTC, the transportation planning, coordinating, and financing agency for the nine-county Bay Area. The current regional transportation plan, known as Transportation 2035, was adopted by MTC on April 22, 2009. Transportation 2035 specifies a detailed set of investments and strategies

throughout the region from 2009 through 2035 to maintain, manage, and improve the surface transportation system. The Plan specifies how anticipated federal, state, and local transportation funds will be spent in the Bay Area during the next 25 years. Most of this "committed funding" will go toward maintaining the region's existing transportation infrastructure.

b. Bay Area Air Quality Management District (BAAQMD)

The BAAQMD is the regional agency with the authority to develop and enforce regulations for the control of air pollution throughout the Bay Area. The Clean Air Plan is BAAQMD's plan for reducing the emissions of air pollutants that lead to ozone. BAAQMD has also published CEQA Guidelines for the purpose of evaluating the air quality impact of projects and plans. One of the criteria that the Guidelines describe is that plans, including General Plans, must demonstrate reasonable efforts to implement transportation control measures (TCM) included in the Clean Air Plan that identify local governments as the implementing agencies. On-road motor vehicles are the largest source of air pollution in the Bay Area. To address the impact of vehicles, the California Clean Air Act requires air districts to adopt, implement, and enforce TCM.

c. VTA

The VTA serves three roles in Santa Clara County: (1) as primary transit operator (2) as the Congestion Management Agency (CMA) and (3) as regional transportation planning agency. In its role as transit operator, the VTA is responsible for the development, operation, and maintenance of the bus and light rail system within the county. The VTA operates over 70 bus lines, three light rail lines, in addition to shuttle and paratransit service and provides transit service to major regional destinations and transfer centers in adjoining counties.

<u>VTA Congestion Management Program</u>

VTA oversees the Santa Clara County Congestion Management Program (CMP). The relevant State legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of gas tax revenues. The CMP legislation requires that each CMP contain the following five mandatory elements: 1) a system definition and traffic level of service standard element; 2) a transit service and standards element; 3) a trip reduction and transportation demand management element; 4) a land use impact analysis program element; and 5) a capital improvement element. The Santa Clara County CMP includes the five mandated elements and three additional elements, including: a county-wide transportation model and data base element, an annual monitoring and conformance element, and a deficiency plan element. Preparation of a deficiency plan is required by cities for CMP facilities that operate at unacceptable levels based on the CMP's standard. The purpose of a deficiency plan is to improve system-wide traffic flow and air quality. According to the VTA's Requirements for Deficiency Plans (1992), plans "allow local jurisdictions to adopt innovative and comprehensive transportation strategies for improving system wide [operations] rather than adhering to strict traffic level of service standard that may contradict other community goals."

VTA requires that proposed development project impacts on the Congestion Management Program (CMP) System be addressed. The CMP system in San Jose includes the freeway and expressway systems and a number of major regional roadways. For the purpose of this study, LOS on individual roadway segments is not evaluated. Instead, because this study is a program level evaluation, major expressways and freeways are evaluated on an aggregate basis.

Caltrain / Peninsula Corridor Joint Powers Board

The Peninsula Corridor Joint Powers Board (PCJPB) is a government entity which manages the Caltrain commuter rail line that runs down the San Francisco Peninsula and Santa Clara Valley. The Caltrain right-of-way is located between the San Francisco 4th & King Station and the San Jose Tamien Station. Caltrain service extends south of Tamien Station to Gilroy on right-of-way owned by Union Pacific Railroad. The PCJPB consists of three member agencies from the three counties which the Caltrain line serves; each member agency sends three representatives to make up the nine member Board of Directors. The member agencies are:

- The City and County of San Francisco
- San Mateo County - San Mateo County Transit District (SamTrans)
- Santa Clara County - Santa Clara Valley Transportation Authority (VTA)

Planned short-range improvements to Caltrain concentrate on a systematic approach in optimizing the current system's condition and performance. These planned improvements include upgrading signaling and communications systems, replacing old bridges, enhancing approach speeds and flexibility at the San Francisco terminus, and eliminating all of the remaining hold-out stations. These stations are areas where trains are required to wait while another train is in the main station and therefore increase service delays. Planned long-range improvements to Caltrain include electrification of the entire line to improve operating efficiency and provide environmental benefits.

d. Santa Clara County

Streets in unincorporated areas, as well as all of the County Expressways, are under the auspices of the Santa Clara County Roads and Airports Department. Several larger, developed County pockets exist within the greater City limits including those in the Burbank area (east of the I-280/I-880-SR 17 interchange), the Willow Glen area (between Leigh and Meridian Avenues near Hamilton Avenue), and in the Cambrian area (between Jackson Drive and Leigh Avenue south of Camden Avenue). Another relatively large developed but unincorporated area exists mostly east of White Road between Penitencia Creek Road and Story Road. Santa Clara County is responsible for maintaining and operating all of the expressways and all of the streets on County property.

<u>Trails Master Plan</u>

The Santa Clara County Trails Master Plan was approved by the Santa Clara County Board of Supervisors in 1995. The goal of the plan is to direct the County's trail implementation efforts well into the 21st century with a balanced regard for the public good and individual desires for privacy. The plan implements the vision to provide a contiguous trail network that connects cities to one another, connects cities to the County's regional open space resources, connects County parks to other County parks, and connects the northern and southern urbanized regions of the County.

The plan identifies regional trail routes, sub-regional trail routes, connector trail routes, and historic trails. Some of the major regional trail routes identified in the County's Trail Master Plan that are within San José include the Coyote Creek Trail and the Guadalupe Trail. Both of these trails are identified in the City's trail network and are an important part of the City's bicycle and pedestrian network. The City has current General Plan policies that encourage the development of bicycle and pedestrian facility connections to these trails.

4. LOCAL REGULATORY FRAMEWORK

The City of San José has adopted several plans that provide guidance for managing the City's transportation system. Key plans are described below.

a. San José Bike Plan 2020

The City's Bike Plan 2020, adopted in 2009, provides a foundation for enhancing the bikeways network and increasing the mode share of bicycle travelers. The Bike Plan lays out specific goals to improve bicycle access and connectivity in San José by the year 2020. These goals include:

- Complete 500 miles of bikeways;
- Achieve a five percent bike mode share;
- Reduce bike collision rates by 50 percent;
- Add 5,000 bicycle parking spaces; and
- Achieve Gold-Level Bicycle Friendly Community status.

b. Citywide Emergency Evacuation Plan

In the event of a fire, geologic, or other hazardous occurrence, the City of San José's Emergency Evacuation Plan provides comprehensive, detailed instructions and procedures regarding the responsibilities of City personnel and coordination with other agencies to ensure the safety of San José citizens.

The plan mentions that the disruptions produced by a major earthquake throughout the Bay Area could potentially create major traffic jams on US 101 from Novato to San José, on I-880/SR17 from Richmond to Santa Cruz, with less severe congestion expected on I-680/I-280 and SR 237. Because the San Francisco and Oakland airports are built entirely on bay fill, and the water table is within five feet of the surface, runways are expected to be unusable due to major damage. Mineta San José International Airport is expected to have a reasonable chance of surviving the earthquake without serious disruption of runway integrity for most aircraft types. Ground failure is expected to damage the alignment of railroads.

The Emergency Plan includes evacuation procedures but does not delineate evacuation routes. Instead, procedures are outlined for different types of emergencies occurring in various locations of the City.

IV. TRANSPORTATION NETWORK CHANGES

1. PROPOSED ROADWAY NETWORK CHANGES

The City of San Jose has approximately 2400 miles of streets within its jurisdiction, of which approximately 500 miles are designated as General Plan streets in the current General Plan, or San José 2020 General Plan. These General Plan streets are commonly referred to as Arterials and Major Collectors that collectively serve as the City's primary circulation network for community mobility. The General Plan specifies the intended right-of-way width that can be associated with traffic capacity of the streets as 2-lanes, 4-lanes, or 6-lanes.

One goal of the General Plan Update is to adjust the City's transportation plan, and in particular to align with the Guiding Principles related to multimodal transportation, economic development, community livability, and environmental sustainability. The Department of Transportation staff underwent a comprehensive review using the San José 2020 General Plan transportation network as a starting point. Taking into consideration of street planlines, neighborhood characteristics, Bicycle Plan 2020, right-of-way restraints, as well as mobility for all modes of transportation, a revised street network plan was developed for transportation analysis of proposed land use scenarios identified for Envision 2040. **Table 6** shows the changes that are contained in the proposed General Plan update in terms of number of lanes for motor vehicles. Network changes compared to existing conditions are illustrated in **Figure 5**. All these changes are included in the transportation analysis for the proposed General Plan Update. The proposed roadway changes are generally broken into four groups. The four groups are characterized by the follow actions:

Group 1 Actions – The proposed General Plan Update has similar roadway capacity as existing conditions, and generally less roadway capacity than the current General Plan.

Group 2 Actions – The proposed General Plan Update has roadway capacity that is consistent with recent transportation policies.

Group 3 Actions – The proposed General Plan Update generally has lane capacity that accommodates multimodal streets. This generally includes a reduction in automobile capacity to accommodate bike lanes, transit lanes or an enhanced pedestrian environment.

Group 4 Actions – The proposed General Plan Update generally has greater roadway capacity than existing conditions, and in some cases greater roadway capacity than current General Plan.

TABLE 6
PROPOSED ROADWAY NETWORK CHANGES

			Number of Travel Lanes		
Street	**Location**		**General Plan 2020 Conditions (2020)**	**Existing Conditions (2008)**	**Proposed General Plan Update Conditions (2035)**
Group 1 Actions - General Plan Update matches Existing Condition					
2nd St.	San Carlos St.	Jackson St.	3	2	2
7th St.	Keyes St.	Curtner Ave.	4	2	2
Almaden Rd.	Canoas Garden	Curtner Ave.	4	2	2
Bailey Ave.	IBM	McKean Rd.	4	2	2
Barnard Ave.	Little Orchard St.	Monterey Hwy.	4	2	2
Bernal Rd.	Heaton Moor Dr.	Santa Teresa Blvd.	4	2	2
Berryessa Rd.	I-680	Piedmont Rd.	6	4	4
Beswick Dr.	Blossom Hill Rd.	Cottle Rd.	4	2	2
Bird Ave.	Coe Ave.	Virginia St.	6	4	4
Blossom Ave.	Blossom Hill Rd.	Santa Teresa Blvd.	4	2	2
Blossom Hill Rd.	w/o Union	--	4	2	2
Cahalan Ave.	Blossom Hill Rd.	Santa Teresa Blvd.	4	2	2
Camden Ave.	Almaden Expwy.	Blossom Hill Rd.	6	4	4
Camden Ave.	Del Paso (SR-85)	Hillsdale Ave.	6	4	4
Camden Ave.	Almaden Expwy.	Harry Rd.	4	2	2
Cherry Ave.	Almaden Expwy.	Branham Ln.	4	2	2
Coleman Rd.	Camden Ave.	Meridian Ave.	4	2	2
Commercial St.	Oakland Rd.	Berryessa Rd.	4	2	2
Commercial St.	W. of Oakland Rd.	--	4	2	2
Delta Rd.	Ruby Ave.	San Felipe Rd.	4	2	2
Doyle Rd.	Lawrence Expwy.	Saratoga Ave.	4	2	2
E. Reed St.	2nd St.	11th St.	4	2	2
Fortini Rd.	n/o McKean Rd.	--	4	2	--
Hamilton Ave.	Leigh Ave.	Meridian Ave.	6	4	4
Hamilton Ave.	Campbell Ave.	City boundary	6	4	4
Hamilton Ave./ Pine St.	Meridian Ave.	Cherry Ave.	4	2	2
Hanchet Ave.	Park Ave.	The Alameda	2	2	--
Harry Rd.	Camden Ave.	McKean Rd.	4	2	2
Hostteter Rd.	Morrill Ave.	Piedmont Rd.	4	2	2
Julian St.	The Alameda	Montgomery St.	4	2	2
Keyes St.	10th St.	11th St.	6	4	4
King Ave.	Alum Rock Ave.	McKee Rd.	4	2	2
Lean Ave.	Blossom Hill Rd.	Chynoweth Ave.	4	2	2
Leigh Ave.	Parkmoor Ave.	San Carlos St.	4	2	2
Little Orchard St.	Curtner Ave.	San José Ave.	4	2	2
Los Gatos Almaden	Harwood Rd.	City boundary	4	2	2
Mabury Rd.	Capitol Ave.	White Rd.	4	2	2
Marten Ave.	Mt Pleasant Rd.	White Rd.	4	2	2
McKean Rd.	Bailey Ave.	Harry Rd.	4	2	2
Meridian Ave.	Park Ave.	San Carlos St.	4	2	2
Meridian Ave.	Coleman Rd.	Camden Ave.	4	2	2

TABLE 6
PROPOSED ROADWAY NETWORK CHANGES

			Number of Travel Lanes		
Street	**Location**		**General Plan 2020 Conditions (2020)**	**Existing Conditions (2008)**	**Proposed General Plan Update Conditions (2035)**
Miller St.	Bollinger Rd.	Prospect St.	4	2	2
Minnesota Ave.	Hicks Ave.	Meridian Ave.	4	2	2
Monroe St./ Tisch Wy.	Stevens Creek Blvd.	Winchester Blvd.	--	2	2
Monterey/Branham Interchange	--	--	IC	--	--
Murillo Ave.	Quimby Rd.	Tully Rd.	4	2	2
Nieman Blvd.	Capitol Ave.	Yerba Buena Rd.	4	2	2
Payne Ave.	Saratoga Ave.	Winchester Blvd.	4	2	2
Phelan St.	Monterey Hwy.	Tenth St.	4	2	2
Piedmont Rd./ White Rd.	Landess Ave.	McKee Rd.	4	2	2
Quito Rd.	SR-85	Saratoga Ave.	4	2	2
Race St.	I 280	Fruitdale Ave.	4	2	2
Redmond Ave.	Camden Ave.	Coleman Rd.	4	2	2
River Oaks Pkwy.	1st St.	Zanker Rd.	4	2	2
Ruby Ave.	Aborn Rd.	Delta Rd.	4	2	2
Samaritan Dr.	Union Ave.	Samaritan Place	4	2	2
San Antonio St.	King Rd.	Jackson Ave.	4	2	2
San Felipe Rd.	Aborn Rd.	Delta Rd.	6	4	4
San Pedro St.	Hedding St.	Mission St.	4	2	2
San Tomas Aquino Rd.	Payne Ave.	Saratoga Ave.	4	2	2
San Tomas Aquino Rd.	Bucknall Rd.	Westmont Ave.	4	2	2
Sanchez Dr.	[dead end]	Blossom Hill Rd.	4	2	2
Senter Rd.	Capitol Expwy.	Singleton Rd.	6	4	4
Senter Rd.	Monterey Hwy.	Hellyer Ave.	4	2	2
Senter Rd.	Hellyer Ave.	Slyvandale Rd.	4	3	2
Sierra Rd.	Morrill Ave.	Piedmont Rd.	4	2	2
Silicon Valley Blvd.	US 101	Basking Ridge Rd.	6	4	4
Snell Av.	SR85	Blossom Hill Rd.	6	4	4
Snell Av.	Santa Teresa Blvd.	Colleen Ct.	4	2	2
Southwest Expy.	Meridian Ave.	Stokes St.	6	4	4
Southwest Expy.	Bascom Ave.	Stokes St.	6	2	2
Trinidad Dr.	Almaden Expy.	Camden Ave.	4	2	2
Tully Rd.	Ruby Ave.	White Rd.	6	4	4
Union Ave.	Blossom Hill Rd.	Los Gatos Almaden Rd.	4	2	2
Via Valiente	Almaden Expy.	Camden Ave	4	2	2
W. Reed St.	1st St.	2nd St.	4	2	2
Williams St.	Moorpark Ave.	Winchester Blvd.	4	2	2
Willow St.	Almaden Ave.	Lelong St.	4	2	2
Yerba Buena/Sylvandale	McLaughlin Ave.	Senter Rd.	4	2	2
Group 2 Actions - General Plan Update Corresponds with Recent Policy Decisions in the City					
101/ Branham Interchange	--	--	--	--	--
101/ Metcalf Interchange	--	--	IC	--	--

TABLE 6
PROPOSED ROADWAY NETWORK CHANGES

			Number of Travel Lanes		
Street	**Location**		**General Plan 2020 Conditions (2020)**	**Existing Conditions (2008)**	**Proposed General Plan Update Conditions (2035)**
Airport Pkwy.	Airport / Brokaw Rd.	Coleman Ave.	6	2	4
Airport Pkwy.	US-101	Airport Pkwy.	6	4	4
Chynoweth Ave.	Colony Field Dr.	Snell Ave.	4	2	--
Chynoweth Ave.	Barron Park Dr.	Pearl Ave.	4	2/4	2
Chynoweth Ave.	Barron Park Dr.	Colony Field Dr.	--	0	--
Julian St.	SR87	Market St.	4	2	--
Montgomery St.	Park Ave.	W. Santa Clara St.	4	2	--
Montgomery St.	Julian St.	St. John St.	4	2	--
Park Ave.	Delmas Ave.	Montgomery St.	4	2	2
Park Ave.	Mongomery St.	Sunol St.	4	4	2
Park Ave.	Sunol St.	Meridian Ave.	4	2	2
St. John St.	Autumn St.	Montgomery St.	4	2	--
Taylor St.	1st St.	4th St.	4	2	2
Vista Park Dr.	Hyde Park Dr.	Capitol Expwy.	4	2	2
Vista Park Dr.	Hyde Park Dr.	Blossom Hill Rd.	--	0	--
Winfield Blvd.	Almaden Expy.	Coleman Rd.	--	0/2/4	--
10th St.	Keyes St.	Santa Clara St.	--	2/3	2
11th St.	Keyes St.	Santa Clara St.	--	3	2
10th St.	Santa Clara St.	Hedding St.	--	3	2
11th St.	Santa Clara St.	Hedding St.	--	3	2
2nd St.	E. Reed St.	Humboldt St.	2	3	2
3rd St.	E. Reed St.	Humboldt St.	2	3	2
3rd St.	Jackson St.	Julian St.	2	2	2
4th St.	Taylor St.	Julian St.	2	2	2
Julian St.	Market St.	24th St.	2	2	2
St. James St.	Market St.	19th St.	2	2	2
S. Almaden Rd.	Grant St.	Alma Ave.	2	2	2
Vine St.	Grant St.	Alma Ave.	2	2/3	2
Group 3 Actions - Proposed Multimodal Streets					
Alma Ave.	Lelong St.	Senter Rd.	4	4	2
Branham Ln.	Almaden Expwy.	Monterey Rd.	6	2/4/6	4
Fruitdale Ave.	Bascom Ave.	Southwest Expwy.	4	4	2
Hedding St.	Coleman Ave.	Winchester Blvd.	4	4	2
Hedding St.	4th St.	17th St.	4	4	2
Hillsdale Ave.	Almaden Expwy.	Camden Ave.	6	6	4
Leigh Ave.	Blossom Hill Rd.	Stokes St.	4	2/4	2
Monroe St.	city boundary	Stevens Creek Blvd.	4	2	2
Monterey Hwy	Umbarger Rd.	Metcalf Rd.	6	4/5/6	4
Sierra Rd.	Morrill Ave.	Capitol Ave.	4	4	2
Winchester Blvd.	Magliocco Dr.	Hamilton Ave.	6	5/6	4
Group 4 Actions - Expanded Street Capacity or Number of Lanes					
101/Mabury Interchange	--	--	IC	--	IC

TABLE 6
PROPOSED ROADWAY NETWORK CHANGES

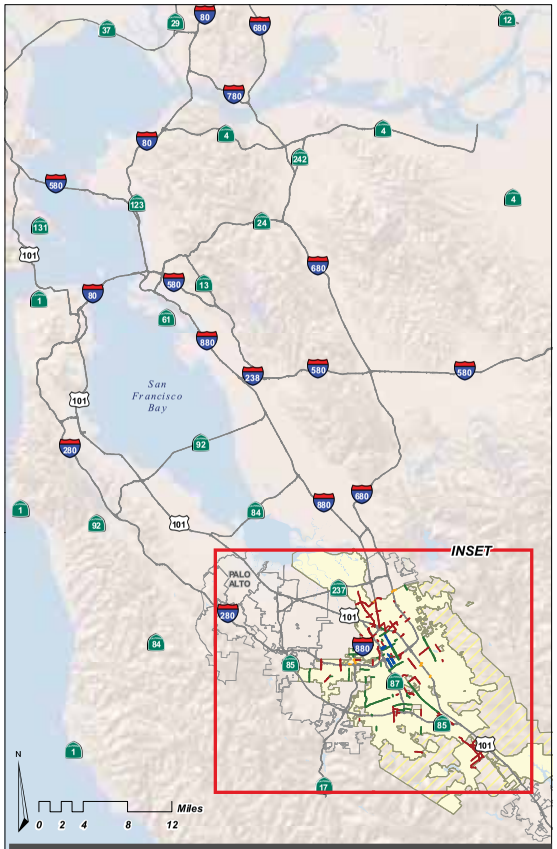
			Number of Travel Lanes		
Street	**Location**		**General Plan 2020 Conditions (2020)**	**Existing Conditions (2008)**	**Proposed General Plan Update Conditions (2035)**
101/Zanker Interchange	--	--	IC	--	IC
280/Senter Interchange	--	--	--	--	IC
Autumn St.	Coleman Ave.	Park Ave.	4	0/2	4
Berryessa Rd.	Commercial St.	I-680	6	4/6	6
Charcot Ave.	Junction Ave.	Zanker Rd.	4	2	4
Charcot Ave.	O'Toole Ave.	Oakland Rd.	2	0/2	2
Chynoweth Ave./Thornwood Dr.	Almaden Expwy.	Winfield Blvd.	4	0	4
Communications Hill Blvd.	Curtner Ave.	Hillsdale Ave.	4	0/4	2
Curtner Ave.	SR 87	Little Orchard St.	6	4	6
Gish Rd.	I-880	Oakland Rd.	4	2	4
Hillsdale Ave.	Capitol Expy	Pearl Ave.	4	2/4	4
King Rd.	Mabury Rd.	Berryessa Rd.	4	2/4	4
Lucretia Ave.	Story Rd.	Tully Rd.	4	2/4	4
Mabury Rd.	Jackson Ave.	Capitol Ave.	4	2/4	4
Montague Expwy	First St.	Trade Zone Blvd.	8	6/8	8
San Carlos St.	I880	Bascom Ave.	6	4	6
Santa Teresa Blvd.	Bayliss Dr.	Laguna Ave. (Fisher Rd.)	6	2/4	4
Santa Teresa Blvd.	Laguna Ave. (Fisher Rd.)	City boundary	4	2	2
Saratoga Ave.	Doyle Rd.	Campbell Ave.	6	4/6	6
Saratoga Ave.	I280	Stevens Creek Blvd.	6	5/6	6
Senter Rd.	Balfour Dr.	Dadis Way	6	4/6	6
Silver Creek Valley Rd. /Blossom Hill Rd.	Hellyer Ave.	Monterey Hwy.	6	4/6	6
Skyport Dr.	1st St.	4th St.	--	0	6
Snell Rd.	Blossom Hill Rd.	Branham Ln.	6	4	6
Trimble Rd.	De La Cruz Blvd.	Central Expwy	6	4/6	6
Tully Rd.	Monterey Expy.	Tenth St.	6	4/5	6
Umbarger Rd.	Monterey Expy.	Senter Rd.	4	2	4
White Rd.	Marten Ave.	Quimby Rd.	6	5/6	6
Zanker Rd.	SR 237	Montague Expwy.	6	4/6	6

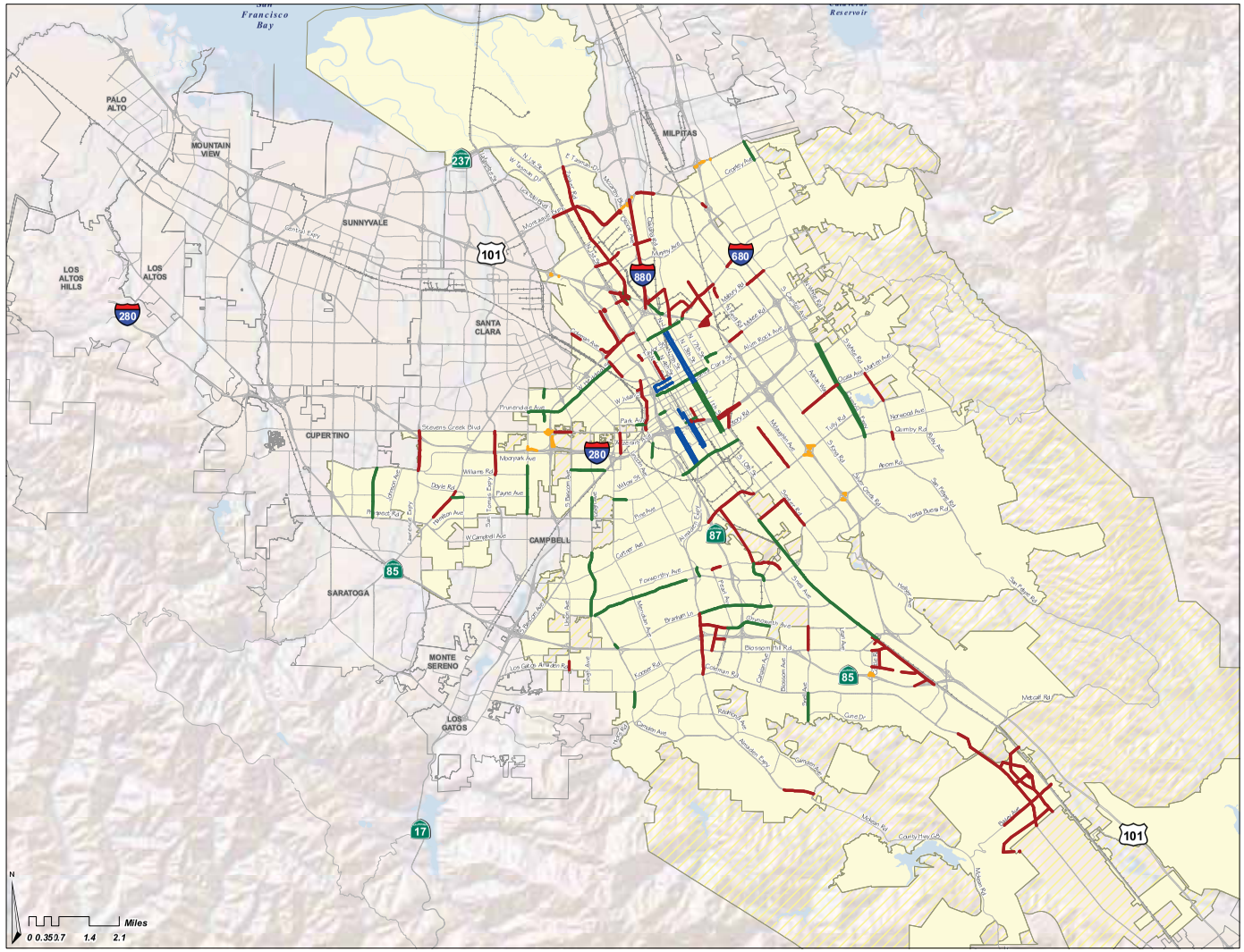
Notes:

IC: Interchange

--: Not designated or not applicable

Source: City of San José, 2010.





LEGEND

Transportation

- Roads
- Railroad

City of San José

- City of San José
- Sphere_of_Influence

Delta in Roadway Lanes

- Roadway Increases by 1 or more lanes per direction
- Roadway Decreases by 1 or more lanes per direction
- Roadway Couplet Conversion
- Interchange Reconfiguration

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Proposed Roadway Changes
Figure 6

2. PROPOSED GENERAL PLAN UPDATE STREET TYPOLOGIES

To ensure a balanced, multimodal transportation network, the proposed General Plan Update organizes streets and other transportation facilities according to "typologies." Street typologies are an expansion of currently used functional classifications. Typologies also consider street context and prioritize certain travel modes depending on the type of street. This ensures that the standards for streets consider surrounding land uses, appropriate travel speeds, and the need to accommodate multiple travel modes.

The proposed typologies are intended to provide an network of "complete streets" that better accommodates all of the various users of the street network. "Complete streets" describes a comprehensive approach to the practice of mobility planning that recognizes that transportation corridors have multiple users with different abilities and mode preferences (e.g., driving, biking, walking, and taking transit). Complete streets, by addressing the needs of all uses of the transportation network, not only improve safety for all users and foster strong communities, but also address climate change, by increasing accessibility and viability of travel modes other than the automobile. Adjacent land use influences the functionality and character of the street environment. A well-integrated street system considers the complementary relationship between land use, local and regional travel needs. The "Complete streets" concept applies to all types of roads from downtown pedestrian streets and high-capacity commercial corridors and considers the full range of users, including children, the disabled, and seniors.

The following typology definitions, which incorporate the principles of complete streets, apply to the streets and other facilities that make up the proposed San José General Plan's circulation network, as shown on **Figure 6**. A sample cross-section for each typology is provided on **Figure 7**. The specific configuration for each individual street may be slightly different due to unique circumstances, including adjacent land uses.

<u>Grand Boulevards</u>

Grand Boulevards serve as major transportation corridors that connect City neighborhoods. In most cases these are primary routes for VTA light-rail, bus rapid transit (BRT),[3] and standard/community buses, as well as other public transit vehicles. Signal preemption for transit vehicles, bus stops, and, where appropriate, exclusive transit lanes, will be provided. Other travel modes, including automobiles, bicycles, and trucks, are accommodated in the roadway, but if there are conflicts, transit has priority. Grand Boulevards contribute to the City's overall identity through cohesive design. Within the public right-of-way, special measures could include enhanced landscaping, attractive lighting, and identification banners. These streets accommodate moderate to high volumes of through traffic within and beyond the city. Pedestrians are accommodated with ample sidewalks on both sides, and pedestrian amenities are enhanced around transit stops. Transit service is accommodated within other street typologies but is the primary mode on Grand Boulevards. There are currently no estimates for time frame until this level of transit would be provided. The City does not have any streets that qualify as Grand Boulevards.

[3] Refer to page 16 for a description of BRT systems.

On-Street Primary Bicycle Facility

On-Street Primary Bicycle Facilities are either Class II bike lanes or Class III signed bike routes, and are through routes for bicycles, providing continuous access and connections to the local and regional bicycle network. These facilities correspond to the primary bicycle network described in the San José Bike Plan 2020. Through and high volumes of motor vehicle traffic are generally discouraged, but may be allowed in localized areas where necessary to accommodate adjacent land uses. Local automobile, truck, and transit traffic are accommodated in the roadway, but if there are conflicts, bicycles have priority. Reduced speed limits and neighborhood traffic management strategies to slow and discourage through automobile and truck traffic may be appropriate. Pedestrians are also accommodated.

Examples of Class II and Class III bike lanes currently serving City residents are San Fernando Street (SR-87 to 11th Street), Willow Street (from near Leigh Ave to SR 87), Holger Way (from N. First Street to Zanker Road), Williams Road-Bollinger Road (from De Anza Boulevard to Winchester Boulevard) and River Oaks Parkway (from Montague Expressway to Zanker Road). The City is currently planning for an enhanced Class II bike facility on San Fernando Street (colored pavement) and River Oaks Parkway (buffer-separated bike lane).

Main Street

Main Streets are roadways that are located within the City's Planned and Identified Growth areas where the City envisions increased density of commercial and residential development. The Main Street's physical form supports many transportation modes, with significant emphasis given to pedestrian activity. Main Streets are streets on which high volumes of pedestrian traffic are encouraged on the adjacent sidewalks. Each Main Street may be different in character, and should reflect the key characteristics of the surrounding neighborhoods. Sidewalks should be wide with ample pedestrian amenities, including street trees, high-quality landscaping, pedestrian curb extensions or bulbouts, and enhanced street crossings. Additionally, signals should be timed to minimize pedestrian delay. Building frontages should provide high levels of pedestrian interest. Pedestrian crossings should have a high priority at intersections. In some locations, well-protected mid-block crosswalks may be appropriate. Lincoln Ave, Saratoga Avenue and Story Road are examples of Main Streets within the City.

City Connector Street

Automobiles, bicycles, pedestrians, and trucks are prioritized equally in the roadway. Transit use is accommodated. These streets typically have 4 or 6 travel lanes and would accommodate moderate to high volumes of through traffic within and beyond the city. Pedestrians are accommodated with sidewalks. Taylor Street / Mabury Road and Senter Road are examples of Connector Streets within the City.

Local Connector Street

Automobiles, bicycles, pedestrians, and trucks are prioritized equally in the roadway. Transit use is accommodated. These streets have 2 travel lanes and would accommodate low to moderate volumes of through traffic within the city. Pedestrians are accommodated with sidewalks.

Residential Street

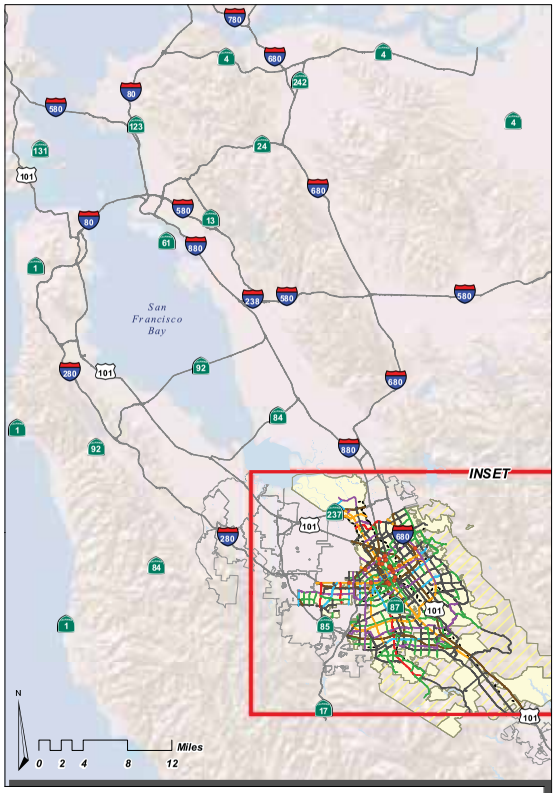
Automobiles, bicycles, and trucks are all accommodated within the street right-of-way. Pedestrians are accommodated with sidewalks or paths. Transit service is rare. These streets accommodate low volumes of local traffic and primarily provide access to property. Through traffic is discouraged. Neighborhood traffic management strategies to slow and discourage through automobile and truck traffic may be appropriate. Streets not designated as Grand Boulevard, On-Street Primary Bicycle Facility, Main Street, or Connector Street are regarded as residential streets. Residential streets are not limited to any specific type of development or range of density. Trucks of any kind are permitted, though they are discouraged.

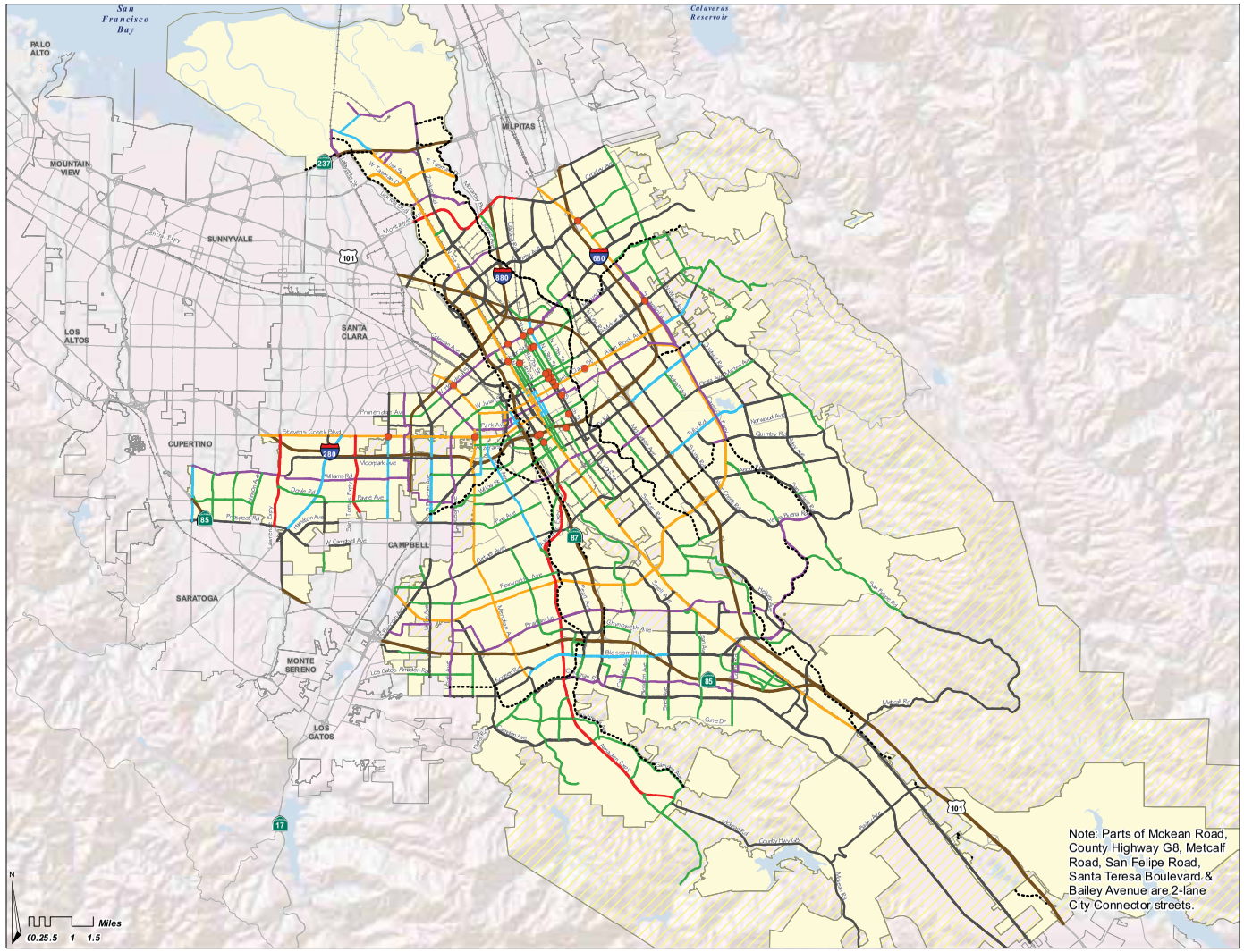
Expressway

These facilities provide limited access to abutting land uses and are designated primarily for traffic movement, serving high volumes and high-speed regional traffic including automobiles, trucks, and express transit buses. Bicycles and pedestrians are either permitted or accommodated on separate parallel facilities. Expressways are maintained and operated by the Santa Clara County Roads and Airports Department. Although expressways are not within the jurisdiction of the City of San Jose, the City will work with the Santa Clara County Roads and Airports Department to accommodate multimodal access along expressways.

Freeways

These facilities are designated solely for traffic movement of automobiles, trucks, and express transit buses. Freeways provide no access to abutting properties and are designed to separate all conflicting movements though the use of grade-separated interchanges. Bicycles and pedestrians are prohibited or accommodated on separate parallel facilities. Freeways are maintained and operated by Caltrans.





LEGEND

Transportation

- Roads
- Railroad

City of San José

- City of San José
- Sphere of Influence

- Grand Boulevard
- On-Street Primary Bicycle Facility
- Main Street
- City Connector Street
- Local Connector Street
- Expressway
- Freeway
- Off-Street Primary Bicycle Facility
- Protected Intersection

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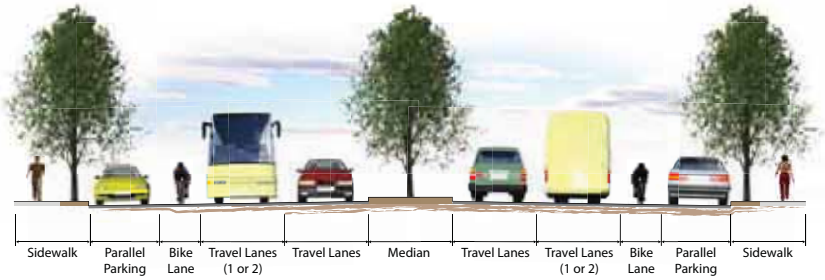
SJ08-1037

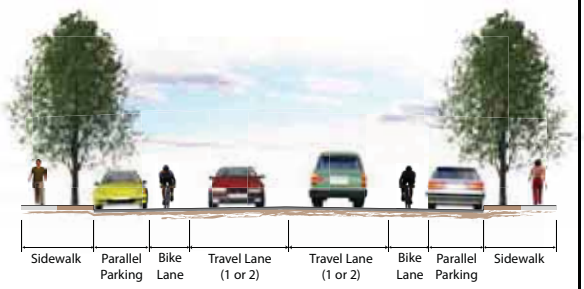
Proposed Street Typology

Figure 6

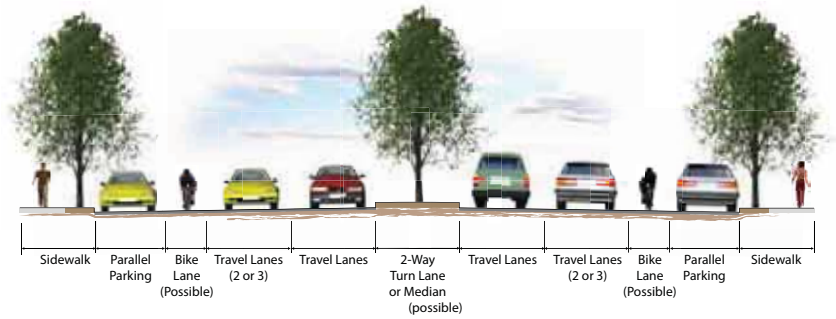
Grand Boulevard - Bus



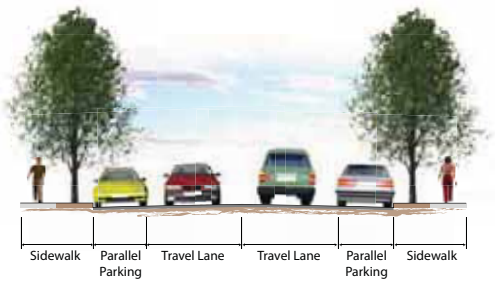
On-Street Primary Bicycle Facility



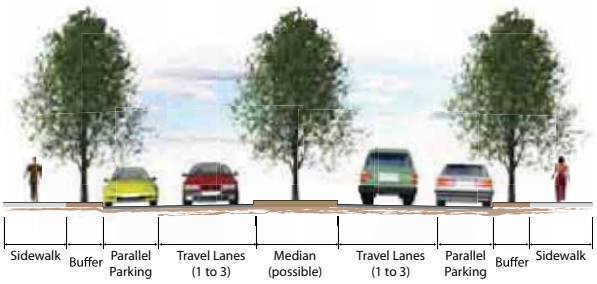
City Connector Street



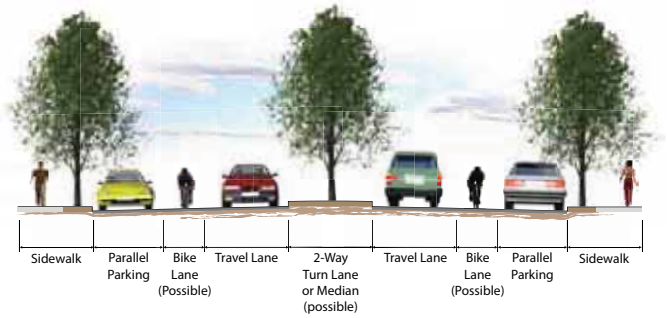
Residential Street



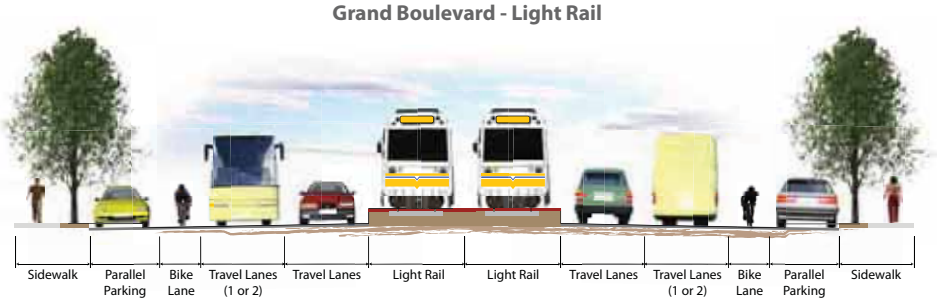
Main Street



Local Connector Street



Grand Boulevard - Light Rail



Note: Although expressways are not within the jurisdiction of the City of San Jose, the City will work with the Santa Clara County Roads & Airports Department to accomodate multimodal access along expressways.

San Jose General Plan

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SJ08-1037

Sample Street Typology Cross-Sections

Figure 7

3. PLANNED TRANSIT, BICYCLE AND PEDESTRIAN IMPROVEMENTS

Plans to further improve the City's transit network with the provision of additional rail service include the future BART extension from Fremont to San Jose, the California High Speed Rail project, and the Caltrain Electrification project. These future planned transit services, along with existing and planned bus and light rail service support the proposed General Plan Update as they increase the City's connectivity and share of transit ridership, and decrease dependence on motor vehicles. These services are illustrated on **Figure 8**.

a. Valley Transportation Authority (VTA)

VTA is planning BRT 2 service along the Santa Clara Street/Alum Rock Avenue/Capitol Expressway corridor. This route will provide service between downtown San José's Diridon Station and the Eastridge Transit Center. Future improvements will include exclusive bus lanes, permanent rail-like stations, off-vehicle fare payment, real-time station display information, intersections with Bus Signal Priority, and new higher capacity vehicles. This BRT 2 route will also serve as an extension to the Alum Rock-Santa Teresa light rail line running down Capitol Avenue. Effects of BRT on street capacity will be determined by the ultimate configuration of the street cross sections along the BRT route and by the signal priority system. Since the cross sections and signal systems have not been designed, the effects cannot be quantified at this time.

VTA is also planning BRT 1 service along the San Carlos Street/ Stevens Creek Boulevard corridor, the Monterey Highway corridor, and the Mathilda Street/ Hollenbeck Street corridor in Sunnyvale. These BRT routes will be similar in nature to the operations of existing Route 522.

The Vasona light rail corridor which serves the Mountain View-Winchester light rail line is planned to be extended southward by approximately 1.6 miles from its current southern terminus at the Winchester Station. Two new stations will be constructed near the intersections of Winchester Boulevard & Hacienda Avenue in Campbell and Winchester Boulevard & Knowles Drive in Los Gatos. Similarly, the Santa Teresa-Alum Rock light rail line is planned to be extended southward from its current northeastern terminus at the Alum Rock Station by approximately three miles. Several new stations will be constructed including a station at Eastridge Mall and another at Story Road in San Jose.

b. Bay Area Rapid Transit (BART)

The BART system is proposed to extend 16 miles from the future terminus at the Warm Springs station in Fremont to Santa Clara via downtown San José. The route will be fully grade separated including a subway through downtown San José. Trains are expected to arrive on this extension every six minutes and would serve the routes to Daly City via San Francisco and to Richmond via Oakland. Stations within the city of San José include Berryessa (Road), Alum Rock (Avenue), downtown San José, and San José Diridon. One station site alternative is proposed for downtown San José that would include a station on Santa Clara Street between 2nd Street and Market Street. The extension is estimated to have between 80,000 to 105,000 boardings and alightings per day on an average weekday. Currently, the projected opening year is 2018.

c. High Speed Rail and Caltrain Electrification

The California High Speed Rail (HSR) project is proposed to link San Francisco and Los Angeles via high speed trains. Major cities served would include San Francisco, San José, Fresno, Bakersfield, Los Angeles, and Anaheim. Future expansion of the system would further link additional areas of the state including Sacramento, Stockton, Modesto, San Diego, Riverside, and Ontario. High speed rail service would be provided between about 5:00 am and midnight daily and is projected to serve approximately 32.2 million riders annually by 2020. The San José Diridon Station is expected to have approximately 5 million annual boardings and alightings. The HSR alignment is proposed to be elevated over the 280/87

interchange. In conjunction with the High Speed Rail project, the planned Caltrain Electrification Program (also known as Caltrain 2025) will be implemented.

The travel demand forecasting model used to estimate future HSR ridership is a regional model and is does not provide coverage for the entire state. This model is not able to project the benefit of local travel mode shifts due to the high speed rail project. It is assumed that some mode shifts would occur due to the high speed rail project, although those shifts are not quantified. The California High Speed Rail project uses a statewide model and has forecasted that approximately 35-50% of the travel between Los Angeles and the Bay Area would switch to high speed rail, 20-40% of the travel between San Diego and the Bay Area would switch to high speed rail, and 1% of the travel within the Bay Area would switch to high speed rail depending upon the high speed rail fare.[4]

Due to the regional nature of the travel demand forecast model used for this study, the California High Speed Rail project, which is expected to carry primarily inter-city passengers, is not assumed in this study.

Caltrain plans to convert its mainline between San Francisco and San Jose from the current diesel-electric locomotive power to fully electric power. Environmental review was completed for the Caltrain Electrification project in April 2010, though funding by Caltrain's partner agencies, the City and County of San Francisco, the San Mateo County Transit District and the Santa Clara Valley Transportation Authority, remains uncertain.

The Caltrain Electrification project will allow Caltrain to increase performance and capacity by switching from diesel locomotives and trailer cars to electric multiple units (EMUs) and by switching to a new signaling system. According to Caltrain electrification EMUs can serve more stations without adding to passenger's total travel time[5]. With electrification, Caltrain will be able to carry three times more passengers in the peak hour. Because environmental analysis is complete and it is in Caltrain's plans for implementation, increased train frequencies resulting from the Caltrain Electrification project are assumed in this study.

d. Bicycle and Pedestrian Improvements

As mentioned above, the San José Bike Plan 2020 provides a foundation for enhancing the bikeways network and increasing the mode share of bicycle travelers. The Bike Plan proposes 500 miles of bikeways and an additional 5,000 bicycle parking spaces. Future bicycle and pedestrian facilities are illustrated on **Figure 9**.

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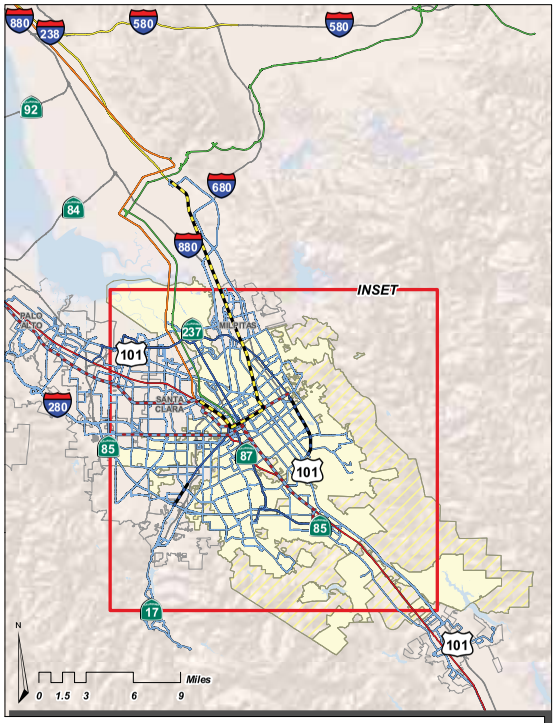
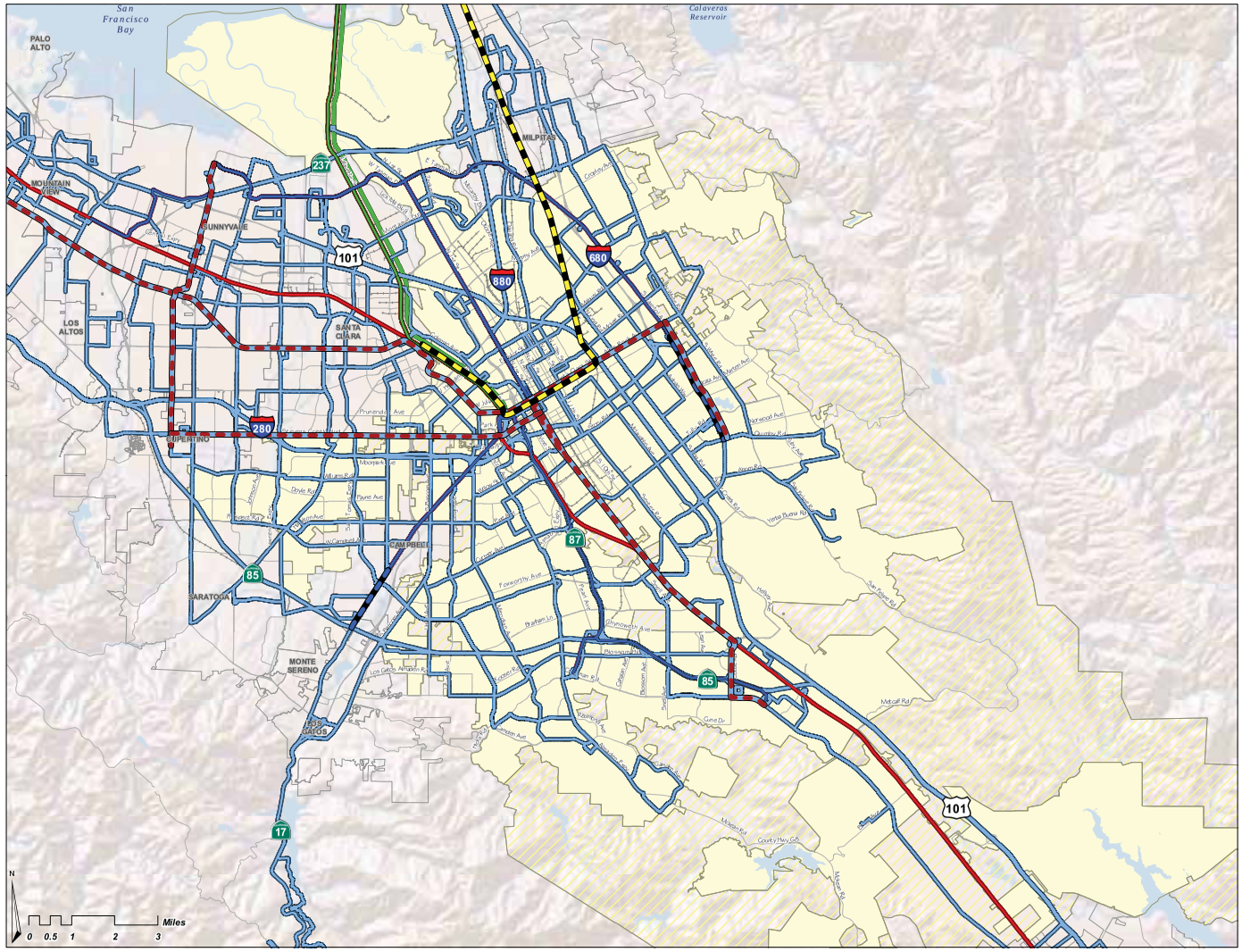
[4] 2008 *California High-Speed Train Project Ridership and Revenue Forecasts* prepared by Parsons Brinckerhoff, Cambridge Sytematics, and SYSTRA.
[5] http://www.caltrain.com/Assets/Peninsula+Rail+Program/Electrification+2025/Caltrain2025handout_Jan2009.pdf





LEGEND

Transportation

- Roads
- Railroad

Boundaries

- Boundaries
- Sphere of Influence

Transit

- Altamont Commuter Express (ACE)
- Amtrak Capitol Corridor
- Caltrain
- Valley Transportation Authority (VTA) Light Rail Lines
- Valley Transportation Authority (VTA) Bus Lines

Proposed Transit

- Proposed VTA Light Rail Extension
- Proposed VTA BRT
- Proposed BART Extension

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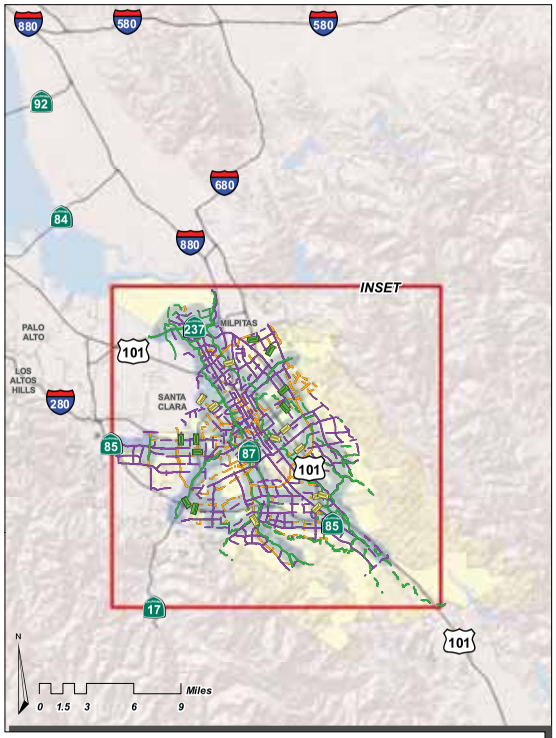
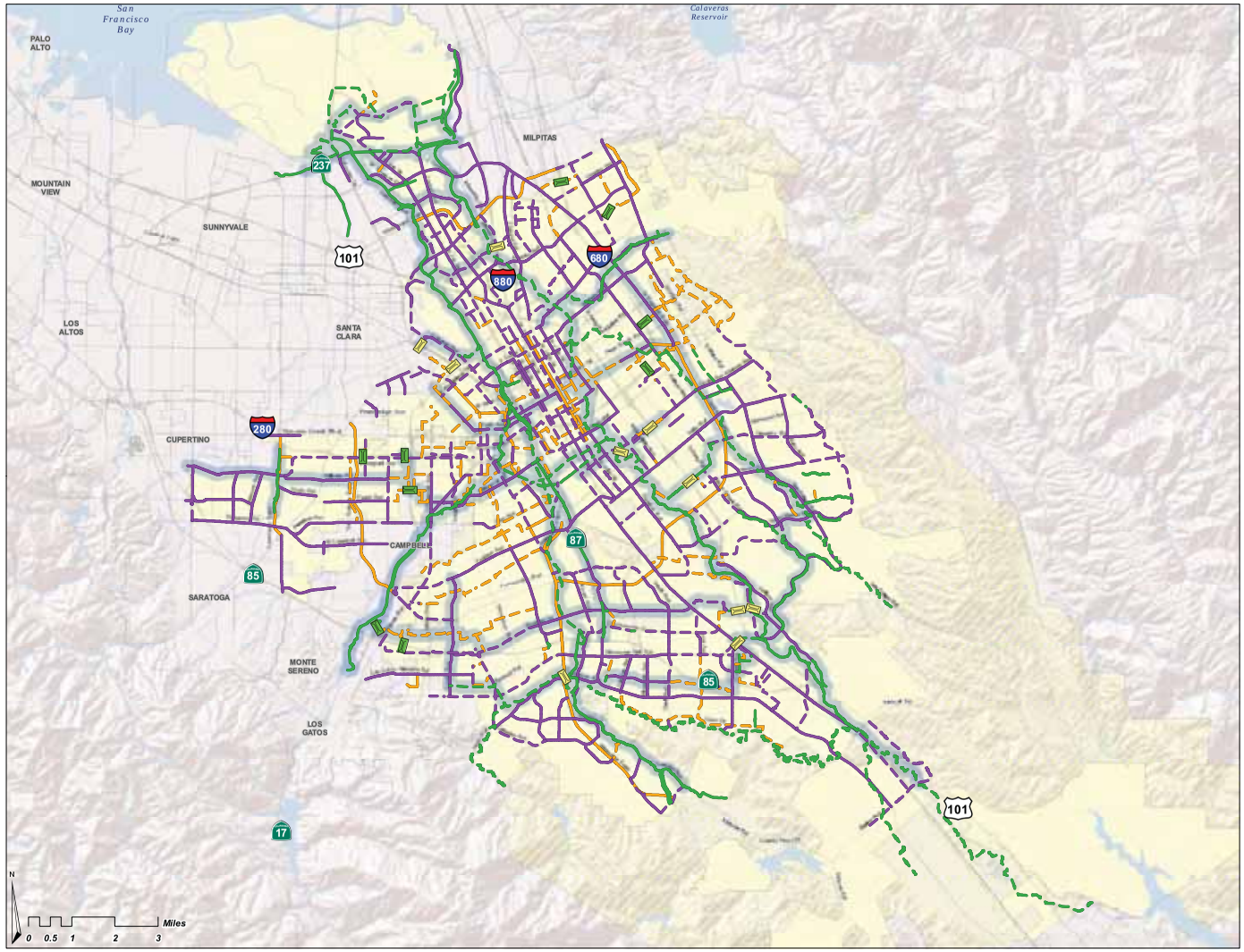
Future Transit Network
Figure 8





LEGEND

Transportation

- Roads
- Railroad

Boundaries

- Boundaries
- Sphere of Influence

Pedestrian and Bicycle Over/Under Crossing

- Existing Over/Under Crossing
- Proposed Over/Under Crossing

Bicycle Facilities

- Primary Bicycle Facilities
- Existing Class I Bicycle Path
- Proposed Class I Bicycle Path
- Existing Class II Bicycle Lane
- Proposed Class II Bicycle Lane
- Existing Class III Bicycle Route
- Proposed Class III Bicycle Route

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Future Comprehensive Bikeways Network
Figure 9

V. PROPOSED GENERAL PLAN UPDATE CIRCULATION ELEMENT GOALS AND POLICIES

The following section describes the goals, policies, and actions that are included in the Circulation Element of the proposed General Plan Update.

1. TRANSPORTATION GOALS AND POLICIES

The Circulation Element of the General Plan 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). When appropriate land uses are mixed and intensified along transit corridors and other key development areas more linkages are created between neighborhoods, and the multimodal transportation network becomes an integral part of the City. 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.

a. Balanced Transportation System

San José desires to provide a safe, efficient, and environmentally-sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit with those of automobiles and trucks.

<u>Goal TR-1 – Balanced Transportation System</u>

Complete and maintain 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 and trucks.

<u>Policies – Balanced Transportation System</u>

TR-1.1 Accommodate and encourage use of non-automobile transportation modes to achieve San José's mobility goals and reduce vehicle trip generation and vehicle miles traveled (VMT).

TR-1.2 Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.

TR-1.3 Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle. The 2040 commute mode split targets for San José residents and workers are presented in the following table.

TABLE 7

COMMUTE MODE SPLIT TARGETS FOR 2040

Mode	Commute Trips to and From San José	
	2008	**2040 Goal**
Drive alone	77.8%	No more than 40%
Carpool	9.2%	At least 10%
Transit	4.1%	At least 20%
Bicycle	1.2%	At least 15%
Walk	1.8%	At least 15%
Other means (including work at home)	5.8%	*See Note 1*

Source: 2008 data from *American Community Survey (2008).*

Note 1: Working at home is not included in the transportation model, so the 2040 Goal shows percentages for only those modes currently included in the model.

TR-1.4 Transportation improvements funded through new development should include needed improvements to all modes, including bicycling, walking and transit. Encourage investments that reduce vehicle travel demand.

TR-1.5 Design, construct, operate, and maintain public streets to enable safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.

TR-1.6 Require that public street improvements provide safe access for motorists and pedestrians along development frontages per current City design standards.

TR-1.7 Require that private streets are designed, constructed and maintained to provide safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.

TR-1.8 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 emission standards are met.

TR-1.9 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-1.10 Require needed public street right-of-way dedication and improvements as development occurs. The ultimate right-of-way shall be no less than the dimensions as shown on the Land Use/Transportation Diagram except when a lesser right-of-way will avoid significant social, neighborhood or environmental impacts and perform the same traffic movement function. Additional public street right-of-way, beyond that designated on the Land Use/Transportation Diagram, may be required in specific locations to facilitate left-turn lanes, bus pullouts, and right-turn lanes in order to provide additional capacity at some intersections.

TR-1.11 Consider options for using waterways as part of the City's transportation network.

Actions – Balanced Transportation System

TR-1.12 Update the City's engineering standards for public and private streets based on the new street typologies that incorporate the concept of "complete streets."

TR-1.13 Reduce vehicle capacity on streets with projected excess capacity by reducing either the number of travel lanes or the roadway width, and use remaining public right-of-way to provide wider sidewalks, bicycle lanes, transit amenities and/or landscaping. Establish criteria to identify roadways for capacity reduction (i.e. road diets) and conduct engineering studies to determine implementation feasibility and develop implementation strategies.

TR-1.14 When useful and effective measurement tools have been established by the Institute of Transportation Engineers, develop a multimodal level of service (LOS) standards that addresses all travel modes and include in the City's Transportation Impact Analysis (TIA) guidelines. These multimodal LOS standards should vary by facility type, travel mode, and location, and should establish a preference for selected modes based on the street type and/or location.

TR-1.15 Pursue multimodal commute share goals and annually monitor progress toward achieving these goals for both residents and employees, and report every five years using data from the Census Bureau's annual American Community Survey (ACS).

TR-1.16 Develop a strategy to construct a network of public and private alternative fuel vehicle charging /fueling stations city wide.

b. Walking and Bicycling

The pedestrian environment affects us all, whether we are walking to a transit stop, a store or school, or simply getting from a parked car or a bicycle rack to the entrance of a building. Pedestrian improvements together with land uses that promote pedestrian activities can help increase walking as a means of transportation, recreation, and exercise. Compatible land use and complete street design recommendations that benefit pedestrians also contribute to the overall quality, vitality, and sense of community in San José's neighborhoods.

Similarly, the flat topography and mild climate of San José make it an ideal city for bicycling. Construction of a comprehensive, safe, direct, and well-maintained citywide bikeway network with support facilities, such as bicycle parking at employment locations and other destinations, could greatly increase the mode share of bicycling. Reducing the number of vehicle trips by shifting those trips to bicycling or walking would help improve circulation, minimize the need for additional parking, contribute towards a healthier community and reduce green house gas emissions.

Goal TR-2 – Walking and Bicycling

Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they are primary transportation modes in San José.

Policies – Walking and Bicycling

TR-2.1 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 (including proposed grade-separated crossings of freeways and other high vehicle volumes roadways) and near areas with higher pedestrian concentrations (schools, transit, shopping, hospital, and mixed-use areas).

TR-2.2 Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers on City streets that impede pedestrian and bicycle movement, including consideration of grade-separated crossings at railroad tracks and freeways.

TR-2.3 Ensure, that crosswalks and sidewalks shall be universally accessible and designed for people of all abilities.

TR-2.4 Encourage walking and bicycling and increase pedestrian and bicycle safety through education programs.

TR-2.5 Integrate the financing, design and construction of pedestrian and bicycle improvement projects with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation.

TR-2.6 Require that 1) all new traffic signal installations, 2) existing traffic signal modifications, and 3) projects included in the Capital Improvement Plan include installation of bicycle detection devices where appropriate and feasible.

TR-2.7 Give priority to pedestrian improvement projects that 1: improve pedestrian safety, 2: improve pedestrian access to and within the Urban Villages and other growth areas, and 3: that improve access to parks and schools.

TR-2.8 Require new development to provide appropriate 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-2.9 Coordinate and collaborate with the Santa Clara Valley Transportation Authority, Corridor Joint Powers Board, Amtrak, ACE, and local shuttle operators to permit bicyclists to transport bicycles and provide appropriate amenities on-board all commuter trains, buses, and shuttles. Coordinate with local transit operators to provide secure bicycle parking facilities at all park-and-ride lots, train stations, and major bus stops.

TR-2.10 Prohibit the development of new cul-de-sacs or gated communities that do not provide through and publicly accessible bicycle and pedestrian connections and pursue the development of new through bicycle and pedestrian connections in existing cul-de-sacs where feasible.

TR-2.11 Consider alternative material to enhance the pedestrian and bicyclist experience as well as provide other benefits such as stormwater management and hydromodification control.

<u>Actions – Walking and Bicycling</u>

TR-2.12 Implement and regularly update, as needed, the San José Bicycle Master Plan. Include top priority bicycle projects in the annual Capital Improvement Program update. Continue to identify barriers to safe and convenient bicycle access and then identify how and when these barriers will be removed as part of Master Plan Updates.

TR-2.13 Develop and then implement a Pedestrian Master Plan. The Master Plan process shall identify pedestrian barriers on key pedestrian routes or access points and then identify how and when these barriers will be removed. Include top priority pedestrian projects in the annual CIP update.

TR-2.14 Identify funding sources for the regular maintenance and cleaning of all public bicycle and pedestrian facilities as part of the City's operation budget, and prioritize routine street maintenance for streets with bike facilities.

TR-2.15 Pursue funding for the purchase of, and then purchase, when feasible, portions of railroad and utility rights-of-way from appropriate agencies for the development of exclusive or shared bicycle and pedestrian facilities.

TR-2.16 Establish a pilot public bike program that allows free or low-cost rental of bikes at key locations (e.g., transit stations, San José Diridon Station, San José State University) to encourage cycling as a primary mode and facilitate use of transit without having to transport a bicycle.

TR-2.17 Provide bicycle storage facilities as identified in the Bicycle Master Plan.

TR-2.18 Partner with other agencies and/or organizations to establish a comprehensive bicycle safety education program for bicyclists, pedestrians, and motorists of all ages. Provide bicycle safety education at all public and private schools, parks, and community centers, and disseminate information through libraries, brochure mailings, and electronic media

TR-2.19 Continue to participate in and support the recommendations of the Safe Routes to School. As part of the on-going Safe Routes to Schools Program, work with the School Districts to increase the proportion of students who walk or bike to school by improving the safety of routs to school, by educating students and parents about the health and environmental benefits of walking and bicycling and by creating incentives to encourage students to walk and bike.

TR-2.20 Identify locations where traffic signals can be modified to reduce overall cycle times or where phases can be modified, eliminated, or added to reduce the wait and/or crossing times for pedestrians.

TR-2.21 Collect pedestrian and bicycle counts as part of routine traffic counts within an appropriate distance of a new development or redevelopment site. Quantifying pedestrian and bicycle activities will measure the amount of pedestrian and bicycle activities throughout the City and assist in determining and prioritizing infrastructure improvement projects.

c. Public Transit

While public transit is provided and maintained by other agencies, the City can greatly influence ridership through land use and zoning decisions, connectivity to other modes including biking and walking facilities, and improving traffic operations within key corridors to facilitate bus headways. The City can also dedicate rights-of-way for new systems and continue extensive coordination with various agencies to expand transit service and accessibility.

<u>Goal TR-3 – Maximize use of Public Transit</u>

Maximize use of existing and future public transportation services to increase ridership and decrease the use of private automobiles.

<u>Policies – Maximize Use of Public Transit</u>

TR-3.1 Pursue development of BRT, bus, shuttle, and fixed guideway (i.e., rail) services on designated streets and connections to major destinations.

TR-3.2 Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard, The Alameda, and other heavily traveled transit corridors.

TR-3.3 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. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

TR-3.4 Maintain and improve access to transit stops and stations for mobility-challenged population groups such as youth, the disabled, and seniors.

Actions – Maximize Use of Public Transit

TR-3.5 Collaborate with Caltrans and Santa Clara Valley Transportation Authority to prioritize transit mobility along the Grand Boulevards identified in Figure ___. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes.

TR-3.6 Regularly collaborate with BART to coordinate planning efforts for the proposed BART extension to San José/Santa Clara with appropriate land use designations and transportation connections.

TR-3.7 Collaborate with transit providers to site transit stops at safe, efficient, and convenient locations, and to develop and provide transit stop amenities such as pedestrian pathways approaching stops, benches and shelters, nighttime lighting, traveler information systems, and bike storage to facilitate access to and from transit stops.

TR-3.8 Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience.

Goal TR-4 – Passenger Rail Service

Provide maximum opportunities for upgrading passenger rail service for faster and more frequent trains, while making this improved service a positive asset to San José that is attractive, accessible, and safe.

Policies – Passenger Rail Service

TR-4.1 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 benefits to the community.

TR-4.2 Work collaboratively with the California High-Speed Rail Authority to bring High Speed Rail to San José in a timely manner.

TR-4.3 Support the development of amenities and land use and development types and intensities that contribute to increased ridership of potential high-speed rail, and also provide positive benefits to the community.

TR-4.4 Work cooperatively with the California High-Speed Rail Authority to ensure that rail corridors within the City are planned and constructed in a manner that enhances the character of the surrounding communities.

Action

TR-4.5 As appropriate, continue to regularly coordinate with rail operators in San José on the following matters:

- Maintenance of rail lines, landscaping, and easements
- Rail electrification to increase the frequency of train service
- Grade separations (either above-ground or underground) to improve street connectivity and pedestrian and bicycle mobility at ground level
- Providing timed transfers with other transit providers in the area.
- Analyzing and mitigating potential negative impacts resulting from increased train service, corridor expansion, and the eventual upgrading of a rail line.

d. Vehicular Circulation and Vehicle Miles Travelled

Between 1980 and 2008, San José's population increased by nearly 45 percent. A general trend nationwide has been that increases in vehicle trips and trip length proceed at a higher rate than growth in population. This is due in part to changing lifestyles (the prevalence of two-income families and a greater percentage of non-work trips on a day-to-day basis) and increased reliance on the private automobile. Even with substantial increases in non-automobile mode shares expected in the years ahead, some increase in automobile travel in San José is expected. To this end, policies focus on maximizing efficiency of the existing street system and making minor capacity enhancements, without negatively affecting other modes.

Goal TR-5 – Vehicular Circulation

Maintain the City's street network to promote the safe and efficient movement of automobile and truck traffic while also providing for the safe and efficient movement of bicyclists, pedestrian, and transit vehicles.

Policies – Vehicular Circulation

TR-5.1 Develop and maintain a roadway network that categorizes streets according to function and type, considering the surrounding land use context through the City's street typologies that incorporate the concepts of "complete streets."

TR-5.2 Encourage implementation of Intelligent Transportation Systems (ITS) strategies to maximize the efficiency of the existing transportation systems through advanced technologies, such as adaptive signal controls, real-time transit information, and real-time parking availability.

TR-5.3 The minimum overall performance of City streets during peak travel periods should be level of service "D" except for designated areas.

Vehicular Traffic Mitigation Measures. Review development proposals for their impacts on the level of service and require appropriate mitigation measures if they have the potential to reduce the level of service to "E" or worse. These mitigation measures typically involve street improvements. Mitigation measure for vehicular traffic should not compromise or minimize community livability by removing mature street trees, significantly reducing front or side yards, or creating other neighborhood impacts.

Area Development Policy. An "area development policy" may be adopted by the City Council to establish special traffic level of service standards for a specific geographic area which identifies development impacts and mitigation measures. These policies may take other names or forms to accomplish the same purpose. Area development policies may be first considered only during the General Plan Annual Review and Amendment Process; however, the hearing on an area development policy may be continued after the Annual Review has been completed and the area development policy may thereafter be adopted or amended at a public meeting at any time during the year.

Small Projects. Small projects may be exempted from traffic analysis per the City's transportation policies.

Downtown Core Area. In recognition of the unique position of the Downtown Core Area as the transit hub of Santa Clara County, and as the center for financial, business, institutional and cultural activities, development within the Downtown Core Area Boundary is exempted from traffic mitigation requirements. Intersections within and on the boundary of this area are also exempted from the level of service "D" performance criteria.

Special Strategy Areas. In recognition of the unique characteristics and particular goals of Special Strategy Areas, identified intersections, referred to as Protected Intersection within these areas, may be exempt from traffic mitigation requirements. Special Strategy Areas are identified in the City's adopted General Plan and include Corridors and Villages, Transit Station Areas, and Specific Plan Areas.

Protected Intersections. In recognition that roadway capacity-enhancing improvement measures erode the City's ability to encourage infill, preserve community livability, and promote transportation alternatives that do not solely rely on automobile travel, specially designated protected intersections are exempt from traffic mitigation measures. Protected intersections are located in Special Planning Areas and proposed developments causing a significant LOS impact at a protected intersection are required to construct multimodal (non-automotive) transportation improvements in one of the City's designated Community Improvement Zones. These are referred to as off-setting improvements and include improvements to transit, bicycle, and/or pedestrian facilities.

TR-5.4 Maintain and enhance the interconnected network of streets and short blocks that support all modes of travel, provide direct access, calm neighborhood traffic, reduce vehicle speeds, and enhance safety.

TR-5.5 Require that new development, which includes new public or private streets, connect these streets with the existing public street network and prohibit the gating of private streets intended to restrict public access. Furthermore require that the street network within a given project consists of integrated short blocks to facilitate bicycle and pedestrian travel and access

<u>Actions – Vehicular Circulation</u>

TR-5.6 Complete build-out of the City's street system per the Land Use and Transportation Diagram.

TR-5.7 Implement the City's Neighborhood Traffic Management Program that formalizes:

- Comprehensive strategies to improve safety and livability of local and collector streets

- Procedures that can uniformly be applied to all neighborhoods to identify and prioritize traffic management measures
- A program that can be clearly followed by residents, City staff, and other stakeholders

e. Goods Movement

An effective and efficient goods movement system is essential to the economic livelihood of the City. Policies for goods movement address all transportation facilities' abilities to accommodate the effective and efficient movement of goods, while balancing the needs of other travel modes.

Goal TR-6 – Goods Movement

Provide for safe and efficient movement of goods to support commerce and industry.

Policies – Goods Movement

TR-6.1 Minimize potential conflicts between trucks and pedestrian, bicycle, transit, and vehicle access and circulation on streets with truck travel.

TR-6.2 Maintain Primary Freight Routes that provide for direct access for goods movement to industrial and employment areas.

TR-6.3 Encourage through truck traffic to use freeways, highways, and County Expressways and trucks having an origin or destination in San José should be encouraged to use primary truck routes designated in this General Plan.

TR-6.4 Industrial and commercial development should be planned so that truck access through residential areas is avoided. Minimize truck travel on streets designated in the general plan as Residential Streets should be minimized.

TR-6.5 Freight loading and unloading for new or rehabilitated industrial and commercial developments should be designed to not occur on public streets. In Downtown and urban areas, particularly on small commercial properties, more flexibility may be needed.

TR-6.6 Support the efficient and safe movement of goods by rail where appropriate and promote the continued operation of freight rail lines that serve industrial properties and the transportation of goods.

Actions – Goods Movement

TR-6.7 As part of the project development review process, ensure that adequate off-street loading areas in new large commercial, industrial, and residential developments are provided, and that they do not conflict with pedestrian, bicycle, or transit access and circulation.

TR-6.8 Continue to pursue the development of an interchange at Interstate 280 and Senter Road that would provide a primary freight route to the Monterey Business Corridor.

f. Transportation Demand Management and Parking

Transportation Demand Management (TDM) refers to a set of strategies to reduce vehicle trips by promoting alternatives such as public transit, carpooling, bicycling, walking, and telecommuting. Many of the features that are incorporated into the Envision San José 2040 General Plan are part of the City's current TDM strategy, including:

- A street typology system that assigns priority to alternate modes of travel, including the concept of complete streets
- Pedestrian and bicycle facilities, including Safe Routes to Schools
- Expanded and enhanced public transit service, including exclusive bus lanes
- Measures such as shuttle services, discounted transit passes, carpooling and car-sharing that reduce vehicle trips
- Compact land use pattern that reduces trip length and allows for "park once and walk" destinations
- Balanced housing and jobs

These measures are included in the plan for the City's physical transportation infrastructure and implementing actions such as maintaining zoning requirements and supporting public transit operations.

Goal TR-7 – Transportation Demand Management

Develop and implement effective Transportation Demand Management (TDM) strategies that minimize vehicle trips and vehicle miles traveled.

Policies – Transportation Demand Management

TR-7.1 Require large employers to develop TDM programs to reduce the vehicle trips generated by their employees.

Actions – Transportation Demand Management

TR-7.2 Establish a citywide or area wide TDM program potentially funded by annual fees or assessments on existing and new developments, or grants. The program may include subsidized transit passes, free shuttle service, ridesharing, preferential carpool parking, flexible work schedules, car-sharing, parking pricing, and other measures. Explore the feasibility of providing neighborhood electric vehicles (NEVs) or personal mobility devices (e.g. Segways) for short trips within residential neighborhoods or office parks.

TR-7.3 Update and enhance the existing TDM program for City of San José employees. The program may include subsidizing transit passes, free shuttle service, preferential carpool parking, ridesharing, flexible work schedules, parking pricing, car-sharing, and other measures.

Goal TR-8 – Parking Strategies

Develop and implement parking strategies that reduce automobile travel through parking supply and pricing management.

Policies – Parking Strategies

TR-8.1 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-8.2 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-8.3 Support using parking supply limitations and pricing as strategies to encourage use of non-automobile modes.

TR-8.4 Reduce parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive TDM program, or developments located near major transit hubs or within Urban Villages and Corridors.

TR-8.5 Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments.

Actions – Parking Strategies

TR-8.6 Update existing parking standards to reduce parking requirements for transit-oriented developments, mixed-use projects and projects within the Urban Villages and Corridors to take advantage of shared parking opportunities generated by mixed-use development. Establish a program and provide incentives for private property owners to share their underutilized parking with the general public and/or other adjacent private developments. Updates to the existing parking standards should also address TDM Actions. The standards shall require amenities and Actions to support reduced parking requirements.

TR-8.7 As part of the entitlement process, require large developments to complete a parking demand analysis that accounts for shared parking, TDM Actions, and parking pricing to determine the appropriate parking supply. Encourage the parking reserve in landscaping concept (i.e., landscaping that can be converted to parking in the future if necessary) to ensure that excessive parking is not provided. If the additional parking is not needed in the future, promote the establishment of the landscaped parking reserves as permanent landscaped areas or recreational amenities.

g. Reduction of Vehicle Miles Traveled

To achieve a 40% reduction in the number of motor vehicle miles traveled requires a multi-prong strategy that includes both land use and transportation. This section includes the transportation goals, policies and actions that are intended to achieve an initial VMT reduction of 10%, followed by a 20% reduction, and ultimately a 40% reduction by 2040. All reductions are measured from the 2009 base year. Once the Task Force accepts the proposed goal, policies and actions below they will be interwoven into the appropriate sections of the overall Transportation goals, policies and actions document. They are separated here for the purpose of the Task Force discussion on June 7, 2010.

Goal TR-9 – Horizon I Reduction of Vehicle Miles Traveled

Reduce Vehicle Miles Traveled (VMT) by 10%, from 2009 levels, as an interim goal.

Policies – Horizon I Reduction of Vehicle Miles Traveled

TR-9.1 Enhance, expand and maintain facilities for walking and bicycling, particularly to connect with and ensure access to transit and to provide a safe and complete alternative transportation network that facilitates non-automobile trips.

TR-9.2 Promote use of unbundled private off-street parking associated with existing or new development, so that the sale or rent of a parking space is separated from the rent or sale price for a residential unit or for non-residential building square footage.

TR-9.3 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-9.4 Promote participation in car share programs to minimize the need for parking spaces in new and existing development.

TR-9.5 Consider adjacent on-street and City-owned off-street parking spaces in assessing need for additional parking required for a given land use or new development.

TR-9.6 Require that large employers develop, as part of the development entitlement process, Transportation Demand Management programs to reduce the vehicle trips generated by their employees.

TR-9.7 Serve as a model for VMT reduction by implementing programs and policies that reduce VMT for City of San José employees.

Actions – Horizon I Reduction of Vehicle Miles Traveled

TR-9.8 Work with the Valley Transportation Authority (VTA) and other public transit providers to increase transit frequency and service along major corridors and to major destinations like Downtown and North San José.

TR-9.9 Reallocate street rights-of-way to non-automotive transportation modes, including bicycling and walking, by reducing automobile lane capacities on streets throughout the city.

TR-9.10 Update the zoning code to reduce the minimum automobile parking requirements for development occurring in designated growth areas adjacent to major transit facilities and in all mixed-use developments.

TR-9.11 Work together with large employers to develop a system for tracking Transportation Demand Management (TDM) programs implemented by employers to allow ongoing assessment of results.

Goal TR-10 – Horizon II Vehicle Miles Traveled Reduction

Reduce vehicle miles traveled by an additional 10% above Goal VMT-1 (a 20% reduction as measured from 2009), at a later date to be determined by the City Council, based on staff analysis of the City's achieved and anticipated success in reducing VMT.

Actions – Horizon II Vehicle Miles Traveled Reduction

TR-10.1 Require in Horizon II, that a portion of parking spaces in all new development in designated growth areas adjacent to transit and in all mixed-use is provided as unbundled from rent or sale of the dwelling unit or building square footage.

TR-10.2 In Horizon II, reduce the minimum parking requirements Citywide.

TR-10.3 Require, in Horizon II, participation in car share programs for new development in identified growth areas.

TR-10.4 In Horizon II, require that a portion of adjacent on-street and City owned off-street parking spaces be counted towards meeting the zoning code's parking space requirements.

TR-10.5 Work with employers in Horizon II to monitor employer achievement of TDM program measures and explore incentives for successes and/or consider penalties for non-compliance.

TR-10.6 Working with members of the development and financial communities, and neighborhood residents, establish, in Horizon II, Citywide parking standards in the Zoning Code which establish maximum parking rates, or "parking caps" for new development.

Goal TR-11 – Regional and State VMT Reduction Efforts

Reduce VMT an additional 20% above Goals VMT 2 and 3 (a total reduction of 40% as measured from 2009) by participating and taking a leadership role in on-going regional and statewide efforts to reduce VMT.

Actions – Regional and State VMT Reduction Efforts

TR-11.1 Support, at the state level, the establishment of vehicle taxes targeted to fund congestion pricing strategies and public transportation, bicycle and pedestrian infrastructure.

TR-11.2 Take a leadership role in working with the County, the Metropolitan Transportation Commission, Caltrans, VTA and other municipalities to establish congestion pricing for automobile travel through and within Santa Clara County.

TR-11.3 Support and collaborate on the development of toll lanes on all major freeways and expressways in Santa Clara County

h. Intelligent Transportation System

Intelligent Transportation Systems (ITS) refer to a family of technologies that make transportation system more efficient and sustainable, as well as enhance safety for the users. ITS must play an integral part in a sustainable transportation system in order to enhance mobility services for all modes of travel, reduce greenhouse gas emissions, and provide the safest roadway environment for moving people and goods.

The City has utilized ITS to actively manage its transportation network. It is poised to expand its capabilities in providing enhanced mobility services for all modes of travel through its currently expanding ITS system and planned improvements. Operations such as transit, streetlights, parking, etc can be enhanced by expanding the current ITS system.

Goal TR-12 – Intelligent Transportation System

Develop a sustainable ITS system to effectively manage, operate, and maintain the current and future transportation network for all modes of travel. A robust and efficient ITS system will provide added opportunities for reducing congestion and greenhouse gas emissions, and increasing safety and the quality of life for all users.

Policies – Intelligent Transportation System

TR-12.1 Develop a citywide ITS system that sustainably manages and integrates all modes of travel including vehicles, transit, and emergency vehicles.

TR-12.2 Enhance the safety and effectiveness of transit service, bicycle, and pedestrian travel as alternative modes using advanced ITS systems.

Actions – Intelligent Transportation System

TR-12.3 Enhance the City's existing Transportation Management Center (TMC) and communications system designed to serve all modes of travel and continue development and implementation of a fiber optic network to support communications with field equipment including but not limited to: traffic signals, Closed Circuit Television (CCTV) cameras, Changeable Message Signs (CMS) and communication hubs.

TR-12.4 Provide enhanced management of new efficient streetlights for energy savings, sustainability, and safety along corridors and at intersections.

TR-12.5 Provide real-time travel information system along all arterial streets to enable all users to make informed travel decisions, enhance safety, increase use of non-auto travel modes, minimize emergency response times and reduce greenhouse gas emissions.

TR-12.6 Work with VTA to implement transit vehicle pre-emption or other priority systems allowing buses to travel on-schedule and provide reliable service.

TR-12.7 Collaborate with VTA to provide real-time transit information at key transit stations and stops, as well as via mobile devices, to provide users with real-time information on bus travel routes and times.

TR-12.8 Create bicycle friendly streets to include advanced detection, priority signal synchronization, dynamic message signs, and public kiosks for bicyclists allowing cycling to be the ideal mode of choice on select roadways.

TR-12.9 Implement technology to aid pedestrians walking across intersections through devices such as countdown timers, accessible pedestrian signal which includes audible and vibrating push buttons for disabled users.

i. Airport

Airports provide an important transportation and economic development function for the City of San José and the region. The San José International Airport, owned and operate by the City of San José, serves as the primary commercial airport for Silicon Valley. Its location near the center of the urbanized North Santa Clara Valley makes this a convenient facility for Silicon Valley businesses and residents. The Airport Master Plan, as adopted by the City Council in June 1997 and amended over time, guides the long term physical development of the Airport to accommodate projected commercial (passenger and cargo) and corporate general aviation demand.

The only other airport within the City of San José is Reid-Hillview Airport which is located in East San José. This Santa Clara County owned and operated airport serves primarily small piston aircraft general aviation demand. Moffett Federal Airfield, located just outside the northwest corner of the City of San José, is a NASA owned and operated facility that presently has restricted aviation services but could provide beneficial aviation services to the City of San José and the Silicon Valley region in the future, including emergency disaster relief.

<u>Goal TR-13 – Attractive and Accessible Airport</u>

Provide an attractive and easily accessible international airport that connects San José and Bay Area businesses and residents with the world and the world to San José through safe, convenient and frequent air travel.

<u>Policies – Attractive and Accessible Airport</u>

TR-13.1 Promote airline service which meets the present and future air transportation needs of residents and the business community, and which minimize impacts on the surrounding community. (Existing San José 2020 GP)

<u>Actions – Attractive and Accessible Airport</u>

TR-13.2 Implement Capital improvements to San José International Airport as identified in the Airport Master Plan. (Existing San José 2020 GP, modified)

TR-13.3 Continue to develop and encourage improved ground access connections between the Mineta International Airport and area freeways and public transit and rail systems.

Goal TR-14 – Safe Airport

Ensure that airport facilities in San José are safe by removing potential conflicts between land use and airport operations.

Policies – Safe Airport

TR-14.1 Foster compatible land uses in the vicinity of San José International Airport.

TR-14.2 Regulate development in the vicinity of airports in accordance with Federal Aviation Administration regulations to maintain the airspace required for the safe operation of these facilities and avoid potential hazards to navigation.

TR-14.3 For development in the vicinity of airports, take into consideration the safety and noise policies identified in the Santa Clara County Airport Land U se Commission (ALUC) comprehensive land use plans for Mineta San José International and Reid-Hillview airports. (Existing San José 2020 GP)

TR-14.4 Require avigation easement dedications, setting forth maximum elevation limits, as needed, as a condition of approval of development in the vicinity of airports. (Existing San José 2020 GP)

Goal TR-15 – Moffett Field

Preserve Moffet Field for existing and future aviation uses.

Policies – Moffett Field

TR-15.1 Continue to work with NASA and other local and regional government agencies to preserve opportunities for future civil aviation use and facilities at Moffett Federal Airfield, including its continued availability to the region for emergency disaster relief purposes. In addition, work with these agencies to ensure that the use of Moffett is consistent with our City's goals. (Existing San José 2020 GP, modified).

j. Trail Network

San José's climate is ideal for bicycling and walking, and the Trail Network Goals, Policies, and Implementation Actions (Trail Network Policies) seek to capitalize on the City's mild temperatures and more than 300 sunny days per year. As of 2010, San José offers over 54 miles of trails in 27 unique trail systems.

The Trail Network Policies focus on continuing to improve the quantity and quality of trails in San José to increase usage for transportation and recreation purposes. T he Trail Network Policies recognize the important connections that trails provide and also encourage people to use San José's trails to access a range of establishments, such as grocery stores, personal services, and entertainment venues, to meet their daily needs.

Building on their connective nature, trails serve as valuable alternatives to automobile transportation and important amenities for recreation. T rails further environmental, social, and transportation goals of this Plan. T rail access and u sage can also be i mportant components to encouraging a m ore active and healthful lifestyle.

The Trail Network Policies lead to an interconnected and well-distributed network of trail systems to support recreation and commuting. The Trail Network makes use of creek and stream corridors, utility corridors, open spaces, and other natural and man-made features to connect areas of the City. The 100-mile Trail Network, linked to a 400-mile on-street bikeway system (refer to "Circulation" section of General Plan and adopted San José Bike Plan) combine to form a 500-mile BikeWeb within San José which contributes to a multi-modal transportation system.

The Trail Network Goals and Policies:

- Support active transportation by developing alignments that link housing, commercial and retail uses.
- Support recreation by linking park sites and connecting to regional trail systems.
- Support environmental protection by permitting stakeholders to access, enjoy and protect open spaces and natural resources.

The Policies in this section work together with other transportation Policies and with the Parks, Open Space, and Recreation Amenities/Programs Policies to promote bicycle use for transportation and recreational purposes in San José.

<u>Goal TN-1 – National Model for Trail Development & Use</u>

Become a national model for trail development and trail use by residents and visitors.

<u>Policies – National Model for Trail Development & Use</u>

TN-1.1 Develop the nation's largest urban network of trails and remain a national leader in terms of scale and quality of those trails.

TN-1.2 Support use of innovative design practices, materials, and construction techniques to improve the development, operation, and safety of trails.

TN-1.3 Minimize environmental disturbance in the design, construction and management of trails. (San José 2020 General Plan)

TN-1.4 Provide gateway elements, interpretive signage, public art, and other amenities along trails to promote use and enhance the user experience.

TN-1.5 Provide services and information to expand knowledge about, encourage use of, and promote the Trail Network as a transportation and recreation facility for all segments of San José's diverse community and visitors.

<u>Actions – National Model for Trail Development & Use</u>

TN-1.6 Develop and adopt City of San José Trail Design Guidelines that function as a national model for trail development guidance.

<u>Goal TN-2 – Trails as Transportation</u>

Develop a safe and accessible Trail Network to serve as a primary means of active transportation and recreation within a multi-modal transportation system. Connect the Trail Network to on-street bikeways to provide a functional, integrated transportation network.

Policies – Trails as Transportation

TN-2.1 Support off-street travel by interconnecting individual trail systems to each other and to regional trail systems.

TN-2.2 Add necessary infrastructure to facilitate travel within a developed urban area to support trail usage.

TN-2.3 Acquire and develop facilities in a prioritized manner, as indicated by the City's adopted bicycle and trail plans and policies.

TN-2.4 Maximize hours that trails are open for public use, consistent with safety and other goals. Manage trail closures and special events to minimize limitations to trail accessibility.

TN-2.5 Integrate and connect trail and pathway networks with a larger network of countywide and regional trails such as the Bay Area Ridge, San Francisco Bay, and Juan Bautista De Anza Trails to allow for a broad base of opportunities and linkage with the greater Bay Area. (previously presented with Parks Policies as PR-7.6)

TN-2.6 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. (San José 2020 General Plan, revised)

TN-2.7 Coordinate trails and bikeways, and consider policies from the Circulation section and the Parks, Trails, Open Space, and Recreation Amenities/Programs section of this Plan to create a complete BikeWeb to serve the needs of San José's diverse community.

Actions – Trails as Transportation

TN-2.8 Consider prioritizing abandoned railroad rights-of-ways for acquisition and development as trails where the right-of-way enhances the City's Trail System. (San José 2020General Plan, revised & previously presented with Parks Policies as Action PR-7.8)

TN-2.9 Work with the Santa Clara Valley Water District and the utilities, including PG& E, to explore opportunities to develop trails, joint-use facilities, and/or other recreational amenities along their rights-of-way. (previously presented with Parks Policies as Action PR-7.9)

TN-2.10 Work with local school districts to identify trails as Safe Routes to School.

Performance Measures – Trails as Transportation

TN-2.11 Develop a trail network that extends a minimum of 100 miles.

TN-2.12 Provide all residents with access to trails within 3 miles of their homes.

Goal TN-3 – Accessible, Safe, & Well-Functioning Trails

Design an accessible, safe, and well-functioning trail network that attracts diverse users of varying abilities.

Policies – Accessible, Safe, & Well-Functioning Trails

TN-3.1 Design new and retrofit existing trails to provide a variety of trails that meet the needs of users of different abilities, such as commuters, families with children, or persons with disabilities.

TN-3.2 Design trails to comply with applicable local, State, and Federal master plans, design guidelines, environmental mitigation, laws, permits, or accepted standards, including Community Policing Through Environmental Design (CPTED) principals, that promote accessibility, functionality, safety, and enjoyment of trails.

TN-3.3 Design bridges, under-crossings, and other public improvements within the designated Trail Network, including grade separation of roadways and trails whenever feasible, to provide safe and secure routes for trails and to minimize at-grade intersections with roadways. (San José 2020General Plan, revised & previously presented with Parks Policies as PR-7.4)

TN-3.4 Design trail system alignments within sensitive riparian and other natural areas to minimize impacts and enhance the environment. Follow Riparian Corridor Goals, Policies, and Actions regarding trail design and development in proximity to riparian areas.

TN-3.5 Design new and retrofit existing public and private developments to provide significant visibility of and access to existing and planned trails to promote safety and trail use.

TN-3.6 Recognize that increased use of trails promotes increased safety and security for trail users.

Actions – Accessible, Safe, & Well-Functioning Trails

TN-3.7 Support development of bike rental kiosks by private sector businesses to support and promote bicycle usage of trails.

VI. IMPACTS AND MITIGATION MEASURES

This section identifies impacts that could result from the proposed General Plan Update and describes mitigation measures to reduce the magnitude of or eliminate significant impacts.

Three scenarios were evaluated for this impact analysis:

- Existing Conditions, which represent transportation conditions in 2008;
- Current General Plan Conditions, representing a future (2035) scenario with the buildout of land uses in the Current General Plan.
- Proposed General Plan Update Conditions, representing a f uture (2035) scenario if the proposed General Plan Update is implemented as proposed.

Consistent with the California Environmental Quality Act (CEQA), impacts are assessed based upon a comparison between existing conditions and future conditions under the proposed General Plan Update.

1. SIGNIFICANCE CRITERIA

Per Appendix G of the CEQA guidelines, implementation of the *Envision San José 2040 General Plan Update* would have a significant impact if it would do any of the following:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature or incompatible uses;
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Appendix G of the CEQA guidelines is intended to provide general guidance for lead agencies evaluating impacts to the transportation system. For purposes of evaluating the proposed *General Plan Update*, the above significance criteria are interpreted as follows in the sections below:

a. Vehicle Miles of Travel (VMT) Impact Criteria (A Measure of Circulation System Effectiveness)

A change in land-use based VMT per service population is considered significant when:

- The General Plan Update causes daily land-use based VMT per service population to increase over existing conditions.

b. Mode Share

A mode share impact is considered significant if implementation of the proposed General Plan Update would:

- Result in an increase in the City's journey to work[6] automobile mode share percentage.

c. Screenline Criteria

For established roadway screenlines within the City, an impact is considered significant if implementation of the proposed General Plan Update would cause:

- Aggregated volume-to-capacity ratios for congested links (links with V/C of 0.9 or higher) of regional screenlines to increase in the peak direction[7] by at least 0.005, and total volumes on the same links to increase in the peak direction by at least 2.5% of the average congested link capacity.

d. Transit Impact Criteria

A transit impact is considered significant when implementation of the proposed General Plan Update would:

- Disrupt existing, or interfere with planned transit services or facilities; or
- Cause the average speed on a transit priority corridor (referred to as a Grand Boulevard in the General Plan Update's Draft Circulation Element) to drop below 15 mph or decrease by 25% or more during the AM peak hour[8].
- Cause a transit priority corridor with an existing average speed below 15 mph to decrease by one mph or more during the AM peak hour. [4]

e. Bicycle Impact Criteria

A bicycle impact is considered significant if implementation of the proposed General Plan Update would:

- Disrupt existing bicycle facilities;

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[6] Although work trips may occur at any time of the day, a majority of work trips occur during typical peak periods (6:00 AM to 10:00 AM and 3:00 PM to 7:00 PM). The City's work trip automobile mode share is used to evaluate impacts because yearly monitoring results are available from the American Community Survey, and the proposed General Plan Update's VMT targets are based on work trip mode share.

[7] As a result of the growth capacity of proposed GP, the standard peak direction criteria are expanded to cover both directions to assess potential impacts to the greatest extent possible.

[8] Since decisions related to mode choice (e.g. driving versus taking transit) are oftentimes made in relation to the AM travel period, this peak hour was used to evaluate impacts.

- Interfere with planned bicycle facilities;
- Conflict or create inconsistencies with adopted bicycle system plans, guidelines, policies or standards; or
- Not provide secure and safe bicycle parking in adequate proportion to anticipated demand.

f. Pedestrian Impact Criteria

A pedestrian impact is considered significant if implementation of the proposed General Plan Update would:

- Disrupt existing pedestrian facilities;
- Interfere with planned pedestrian facilities;
- Not provide accessible pedestrian facilities that meet current ADA best practices; or
- Creates inconsistencies with adopted pedestrian system plans, guidelines, policies or standards.

g. Design Review Considerations Criteria

A design impact from a transportation improvement is considered significant when:

- The proposed General Plan Update introduces a design feature from a transportation improvement or incompatible use that substantially increases safety hazards.

h. Air Traffic Impact Criteria

An air traffic impact is considered significant if implementation of the proposed General Plan Update would:

- Increase air traffic levels resulting in a substantial safety risk.

i. ***Emergency Response Time Impact Criteria***

An emergency response time impact is considered to be significant if implementation of the proposed General Plan Update would:

- Provide inadequate access to accommodate emergency vehicles.

j. Adjacent Jurisdiction Impact Criteria

An impact to an adjacent jurisdiction is considered significant if implementation of the proposed General Plan Update would cause 25 percent or more of its major street lane miles to meet the following conditions in the AM four-hour peak period[9]:

- A future volume-to-capacity ratio is greater than 1.0; and
- The City contributes 10 percent or more of the total traffic.

2. TRANSPORTATION ANALYSIS METHODOLOGY AND ASSUMPTIONS

The following is a summary of the methodology and assumptions used to conduct the impact analysis for the proposed General Plan Update.

a. Travel Demand Forecasting

A citywide Travel Demand Forecasting Model (TDF Model) was prepared as part of the General Plan Update. The TDF Model was developed to provide improved city-wide travel demand forecasting as part of continued planning efforts to address transportation infrastructure needs and to assist in the update of the City's General Plan. The Model was developed from the Valley Transportation Authority (VTA) Countywide Travel Demand Model. The VTA model contains all cities and counties within the model's extents roughly bounded by southern Monterey County, eastern San Joaquin County, northern Sonoma County, and the Pacific Ocean. The San José model is a windowed 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 land use data, roadway network, and counts used in the base year validation reflect April and May 2008 conditions.

The VTA and San Jose models both use a "4-step" modeling process to forecast travel patterns. The 4-step process begins with the trip generation step, which involves estimating the number of trips that would occur with the proposed General Plan land uses. The City's TDF Model includes person trip generation that is based on the regional Metropolitan Transportation Commission (MTC) Travel Demand Model. Trip generation is estimated based on the type and amount of specific land uses (for example, the number of single-family households) within each travel analysis zone (TAZ). Trip generation rates are cross-classified by income quartile to provide a more realistic estimate of trip-making patterns. During the trip generation phase, the TDF Model produces trip estimates in person trips (as compared to vehicle trips, which are often quoted in near term transportation analyses). These person trips are input into the following modules of the Model.

[9] Since decisions related to mode choice (e.g. driving versus taking transit) are oftentimes made in the morning before leaving for work, the four hour (6:00 AM to 10:00 AM) morning peak travel period was used to evaluate impacts.

The second step in the Model involves distributing the trips to various internal destinations and external gateways, or trip distribution. The Model pairs trip origins and trip destinations (starting and ending points) for each person trip based on the type of trip (from 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 are made between two locations where the interaction between those two locations diminishes with increasing distance, time, and cost between them.

Mode choice is the third step of the Model, which determines which transport mode a person will chose for each trip, based on the availability of a vehicle, the trip distance, and the purpose of the trip.

The final step involves determining which route to take to travel between the trip origin and destination. The Model assigns the trips to the roadway network to minimize travel time between the start and end points of the trip. 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[10] until the trip assignment is reached.

Land Use Allocation

The Association of Bay Area Governments (ABAG) allocates future land use to each jurisdiction within the Bay Area in conjunction with its projections of future residents and employment. Future land use estimates within the City of San José were provided by City staff and integrated with regionally approved data from the ABAG Projections 2007 – the latest projects available and ready for model application. The control totals for each individual land use category within the ABAG area remained constant for all scenarios by adjusting land use outside of Santa Clara County such that, if a scenario differed from the ABAG projections, the difference between the projections for San José and the individual scenario's land use was distributed among the remainder of jurisdictions in the bay area region outside of Santa Clara County. For example, if a s cenario included 2,000 fewer single-family dwelling units than the ABAG projections, those 2,000 dwelling units would be added to other cities in the bay area such as Redwood City, Oakland, and Walnut Creek.

Table 8 shows the number of dwelling units, population, and the employment in the City of San José assumed in the model and this analysis for each scenario.

[10] Under equilibrium traffic conditions, "traffic arranges itself in congested networks in such a way that no individual trip maker can reduce his [or her travel time] by switching routes." (Ortuzar, Juan de Dios & Willumsen, Luis G. Modeling Transport, 3rd edition. 2002).

TABLE 8
JOBS AND HOUSING COMPARISON

	Amount of Land Use		
	Existing Conditions (2008 Baseline)	**Current General Plan (if the 2020 GP were still around in 2035)**	**Proposed General Plan Update (2035)**
Housing and Jobs			
Dwelling Units	309,350	391,460	429,350
Population	985,307	1,197,868	328,504
Employment	369,450	625,000	839,450
Service Population	1,354,757	1,822,868	2,153,261
Growth from 2008 Base Year			
Dwelling Units	-	82,110	120,000
Population	-	212,561	367,200
Employment	-	255,550	470,000
Service Population	-	468,111	798,504

Note: Current General Plan conditions are displayed for informational purposes only and not used to determine impacts.
Source: City of San José, 2010.

b. Access to Transit

Geographic Information System (GIS) software was used to calculate the employment, number of residents, and school enrollment within an approximate ½-mile walking distance of rail stations and within a ¼-mile walking distance of the existing top 15 bus routes in the City of San José. These locations included:

- Caltrain stations (e.g., San José Diridon and Blossom Hill)
- Light rail stations (e.g., Santa Clara, Cottle, Fruitdale, and Tasman)
- Future BART stations (e.g., Alum Rock and Berryessa)
- Bus routes 22, 23, 25, 26, 55, 60, 64, 66, 68, 70, 71, 72, 73, 77, and 522

The analysis indicated approximately 75 percent of planned new growth under the proposed General Plan Update falls within walking distance of rail stations or the existing top 15 bus routes. **Figure 11** shows the proposed General Plan Update's growth in service population in areas that are not within walking distance to transit.

c. Transit Line Ridership

Three methods of analysis were used to calculate transit ridership: transit line ridership forecasting, station ridership forecasting, and San José BART ridership forecasting. All of this data was obtained from the City's TDF model.

Transit line ridership results are based on the TDF model mode choice output and represent total transit boardings. The transit line ridership results were compiled for the existing top VTA bus routes mentioned previously (Routes 22, 23, 25, 26, 55, 60, 64, 66, 68, 70, 71, 72, 73, 77, and 522) as well as future BRT routes (Routes 523, 554, and 568). The ridership results for all VTA light rail lines were also compiled. Line ridership accounts for boarding on bus routes and light rail lines that cross City limits.

d. Land Use Based Vehicle Miles Traveled (VMT)

Transportation is a major contributor to greenhouse gas emissions. According to the US Environmental Protection Agency (EPA), the transportation sector was responsible for nearly 28 percent of all greenhouse gas (GHG) emissions in the United States in 2006, and transportation in California was responsible for about 38 percent of GHG emissions in 2004. Transportation is the direct result of population and employment growth, which generates vehicle trips to move goods, provide public services, and connect people with work, school, shopping, and other activities.

While a nu mber of factors influence daily trip making, the following variables are some of the most influential when it comes to how individuals travel:

- Income
- Age
- Household size
- Workers per household
- Autos available
- Access to transit
- Comfort and convenience of travel modes

Growth in travel (especially vehicle travel) is due in large part to urban development patterns (i.e., the built environment). Over the last half century, homes have been built further from workplaces, schools have been located further from neighborhoods they serve, , and other destinations, including shopping, have been isolated from where people live and work. A significant portion of new development since World War II has been planned and built in a pattern that is dependent on the use of cars as the primary mode of travel. As a l arger share of the built environment has become automobile dependent, vehicle trips and distances have increased, and walking and public transit use have declined. Population growth has been responsible for only a quarter of the increase in vehicle travel over the last couple of decades. A larger share of the increase can be traced to the effects of a changing built environment, namely to longer trips and pe ople driving alone (*Growing Cooler: The Evidence on Urban Development and Climate Change* published by the Urban Land Institute, 2008).

A performance measure used to quantify the amount of travel is vehicle miles traveled (VMT). VMT is a useful performance measure, since the amount of travel and conditions under which the travel occurs directly relate to the quantity of fuel vehicles burn and what air pollutants are emitted. One combusted gallon of gas from a v ehicle is equal to approximately 24 pounds of carbon dioxide. Given today's average vehicle fuel mileage (i.e., approximately 22 miles per gallon), one mile of travel equates to about one pound of carbon dioxide. As a result, increases in VMT directly cause increases in greenhouse gas emissions and air pollution.

VMT measurement has one primary limitation: it is not directly observed. Methods do not exist that can measure the trip distances of all vehicles on a given day. VMT is typically an output from travel demand models and is calculated based on the number of cars multiplied by the distance traveled by each car. As such, the VMT estimate is dependent on the level of detail in the network and other variables related to vehicle movement through the network. The volume and distance of traffic depends on land use types, density/intensity, and patterns as well as the supporting transportation system.

A travel demand model attempts to represent this relationship when forecasting vehicle trips and VMT. Although the calculation of VMT is simply the number of cars multiplied by the distance traveled by each car, VMT performance measures can be reported differently.

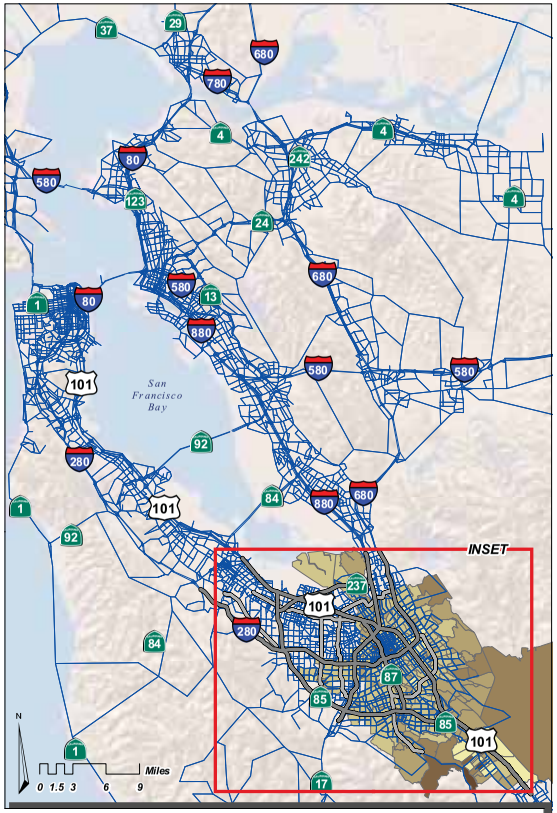
For the purposes of the VMT analysis for the City of San Jose, the performance measure of VMT generated per service population (residents + employment) was used. This approach focuses on the VMT generated by new population and employment growth. This is also described as land use-based VMT.

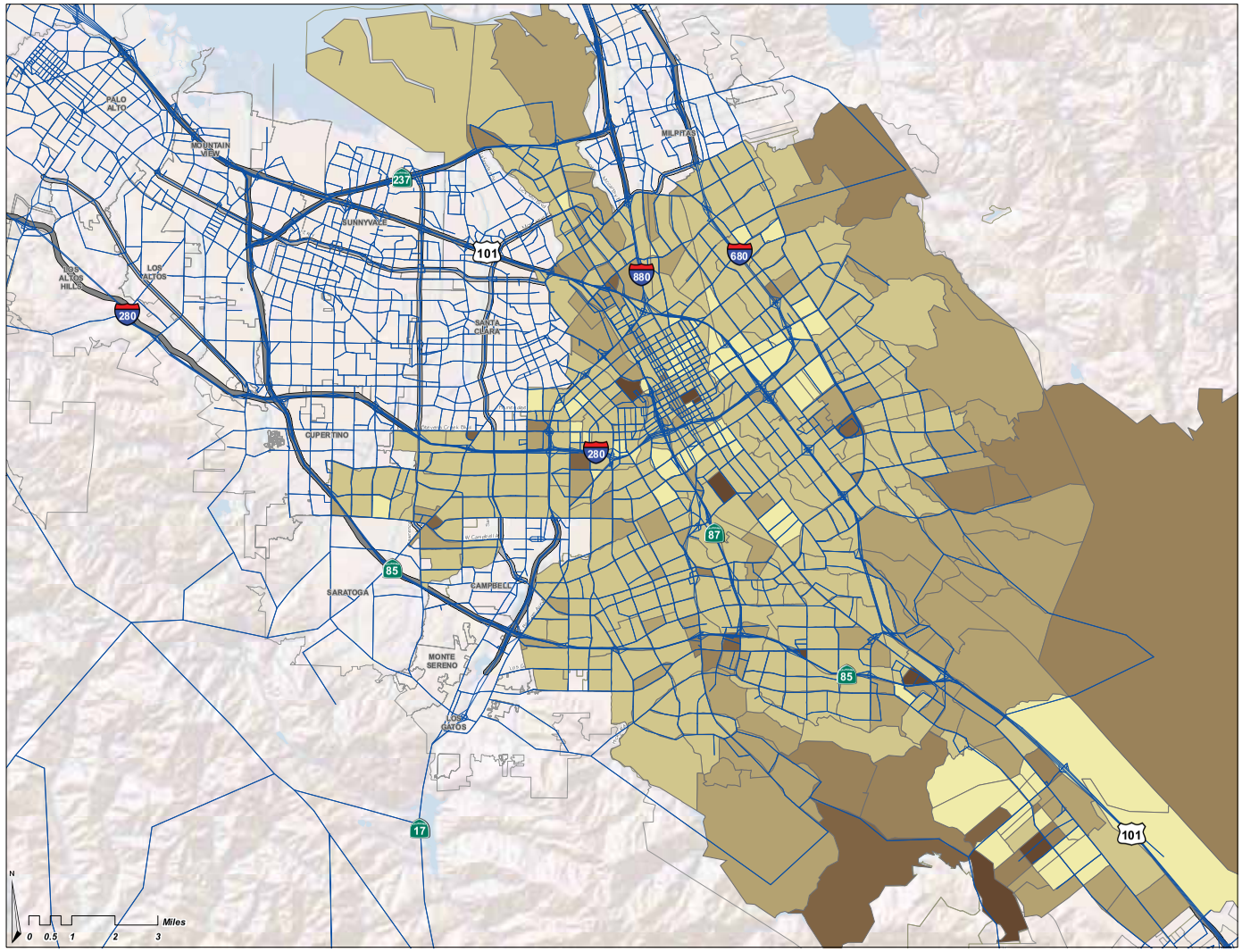
The following assumptions were used to allocate land use based VMT to the City of San José:

- Internal-internal (II): All daily trips made entirely within the San José city limits (trips traveling from San José to San José).
- One-half of internal-external (IX): One-half of daily trips with an origin within San José city limits and a destination outside of San José (trips traveling from San José to other locations). This assumes that San José shares half the responsibility for trips traveling to other jurisdictions.
- One-half of external-internal (XI): One-half of daily trips with an origin outside of San José city limits and destination within San José (trips traveling from other locations to San José). Similar to the IX trips, San José shares the responsibility of trips traveling to other jurisdictions.
- External-external (XX): Trips through the city (trips traveling from other locations to other locations) are not included. This approach is consistent with the concept used for the IX and XI trips. Therefore, the XX VHT, VT, and VMT would be assigned to other jurisdictions such as the cities of Santa Clara, Morgan Hill, Campbell, Milpitas and Santa Clara County.

For land use based VMT all internal trips (II), half of the internal to external (IX) or external to internal (XI) trips, and none of the external to external (XX) trips passing through the city are included in the VMT calculations. Land use based VMT is associated with the city's service population (residents + employment) and may include some mileage outside of the city limits. This measurement accounts for the fact that while there is absolute growth in VMT the rate of VMT "per person" can be influenced by the land use authority. Consistent with the state of the practice for forecasting VMT, this analysis assumes all land uses are fully occupied.

VMT per service population by travel analysis zone (TAZ) for existing, current General Plan, and proposed General Plan Update Conditions is presented in **Figures 10a**, **10b**, and **10c**. Current General Plan conditions are presented for informational purposes only and are not used to determine impacts.





LEGEND

Model Network	VMT per Service Population
Roadway	0 - 10
	10 - 20
	20 - 30
	30 - 40
	40 - 50
	50+

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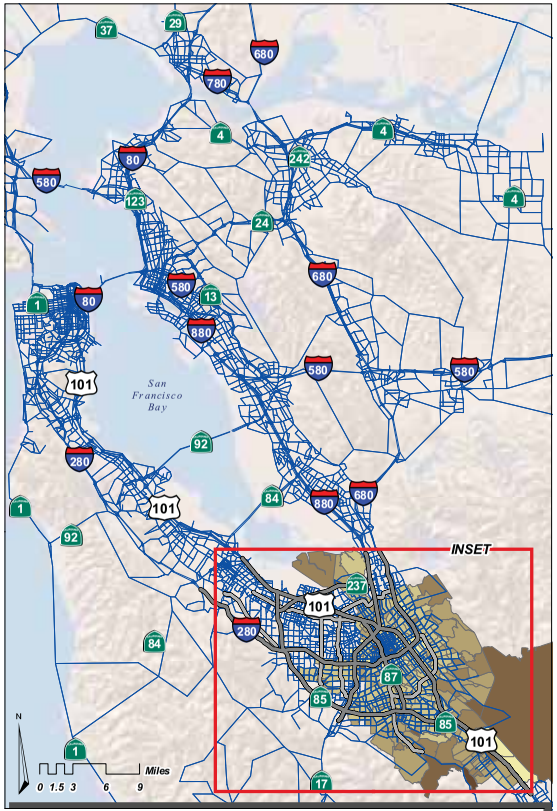
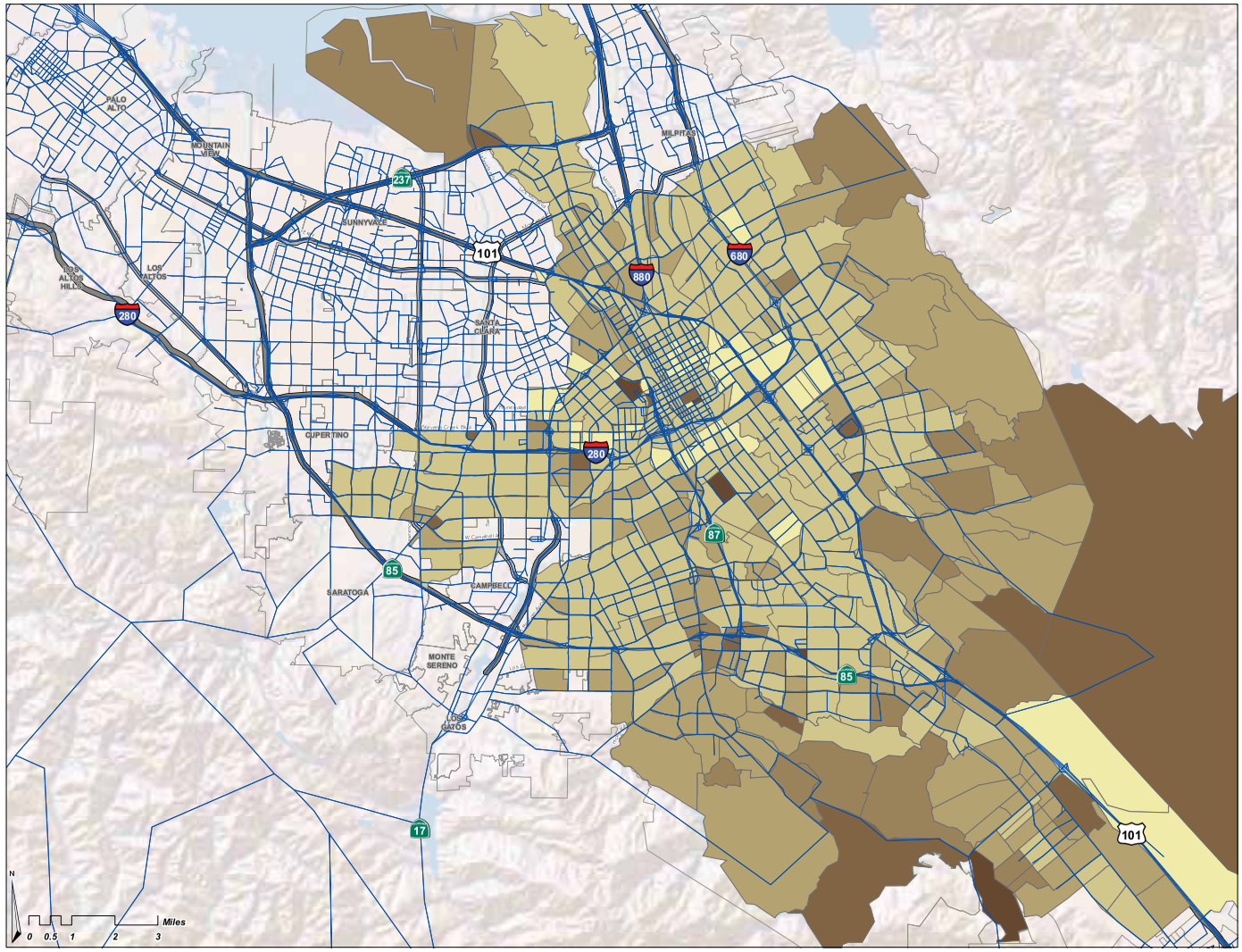
Total Vehicle Miles Traveled (VMT) Per Service Population by TAZ for Scenario Base

FIGURE 10a





LEGEND

Model Network	VMT per Service Population
Roadway	0 - 10
	10 - 20
	20 - 30
	30 - 40
	40 - 50
	50+

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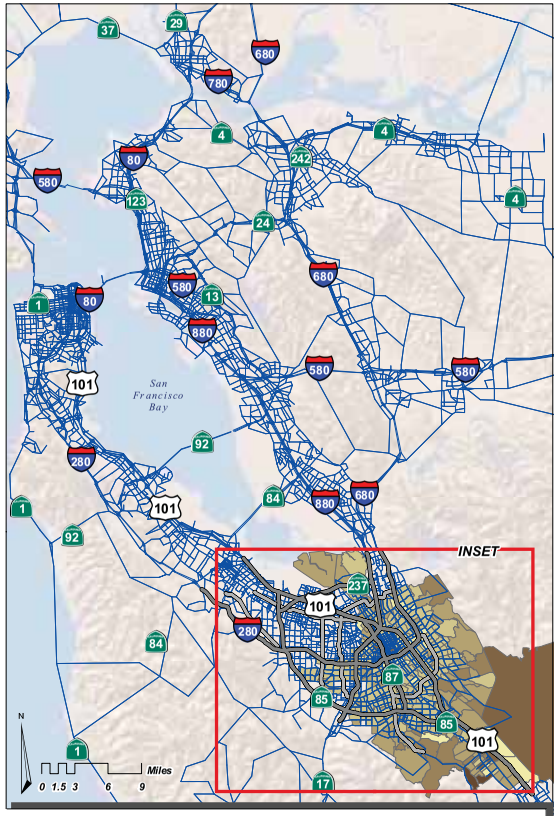
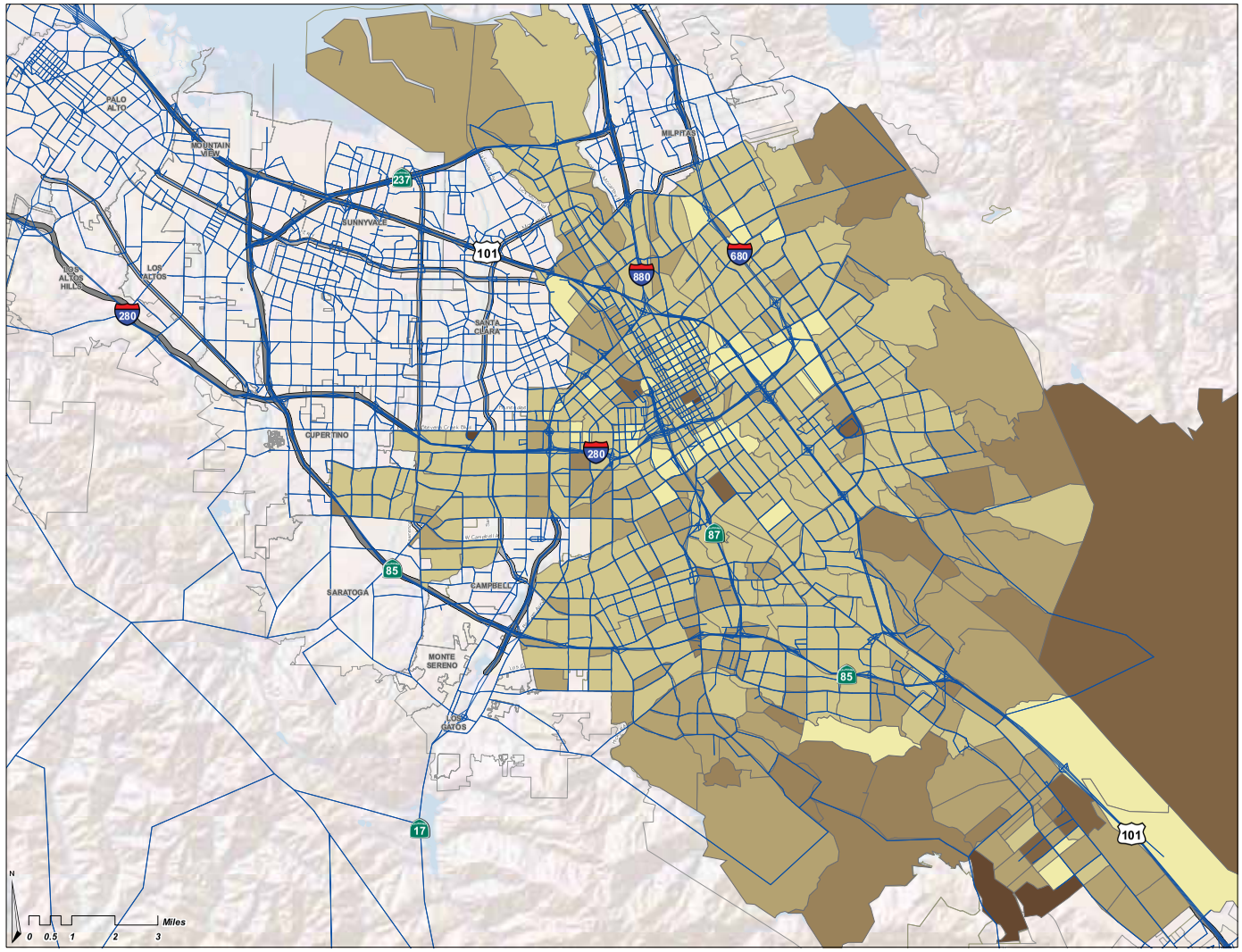
Total Vehicle Miles Traveled (VMT) Per Service Population by TAZ for Scenario 2020

FIGURE 10b





LEGEND

Model Network	*VMT per Service Population*
Roadway	0 - 10
	10 - 20
	20 - 30
	30 - 40
	40 - 50
	50+

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Total Vehicle Miles Traveled (VMT) Per Service Population by TAZ for Scenario 6

FIGURE 10c

e. Screenlines

Screenline traffic operations were analyzed based on existing and proposed General Plan Update traffic volumes from the model and the theoretical capacity of each screenline. The volume and capacity across each screenline is the sum of the roadway segment volumes and capacities that cross the screenline. Screenlines are selected along natural (rivers or ridges) or man-made (freeways or railways) barriers where opportunities are usually restricted for traffic moving across. Screenlines are tools to identify potential capacity deficiencies for motor traffic traveling from one part of the city or county to the others. Screenline impacts and numbering are defined by City of San José standards[11] that are historically used for General Plan Amendment evaluation. This screenline analysis assumes a similar roadway system for the existing and proposed General Plan Update scenarios. Screenline locations are illustrated on **Figure 11**.

f. Transit Priority Corridors

The City of San José evaluated impacts on transit priority corridors to determine whether transit remains a practical alternative to the automobile with the implementation of the proposed General Plan Update. Average speed on these corridors was calculated by dividing the delay ratio of each corridor by the length of the corridor. If an average speed on a corridor dropped below 15 mph or decreased by 25 percent or more during the AM peak hour with implementation of the proposed General Plan, a significant impact would be identified. Thresholds for impacts were developed based on the logic that transit facilities in highly congested areas that maintain on-time performance potentially add additional daily riders. Likewise, unreliable service caused by poor on-time performance would likely shift transit riders to other travel modes such as the automobile, which in turn would cause greater levels of congestion, further reducing the effectiveness of transit.

g. Adjacent Jurisdiction Roadway Segments

The City's transportation methodology for assessing long term future general plan impacts does not evaluate impacts at individual intersections or assess street segment operations based upon level of service (LOS). Adjacent jurisdiction roadway segment impact thresholds were developed by the City of San José. The City of San José did not previously evaluate impacts to other cities other than cities that overlapped the screenlines (and they were not called out). These thresholds are brand new, and are substantively different from those used by Santa Clara.

Freeway facilities operated by Caltrans and expressways operated by the County of Santa Clara are regarded as adjacent jurisdictions. Operations of these facilities, which include facilities that are part of VTA's Congestion Management Program, are evaluated according to the adjacent jurisdiction impact criteria.

Total volumes attributable to San José for existing and proposed General Plan conditions were used to evaluate impacts.

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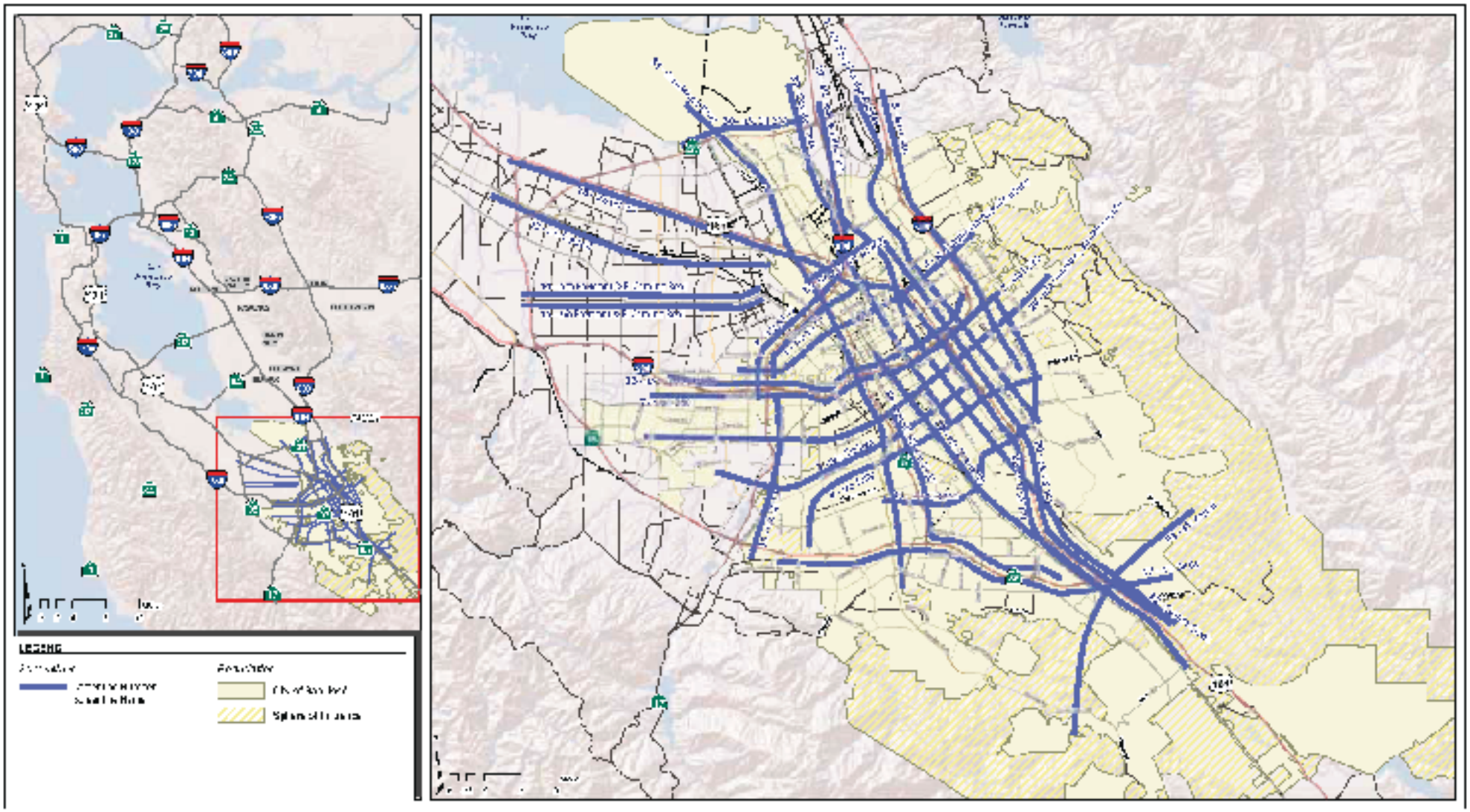
[11] City of San José: Methodology for Transportation Network Modeling & Analysis, 2007



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Screenline Locations

h. Parking

Although parking policies are included in the proposed General Plan Update Circulation Element, parking impacts are not evaluated in this analysis because (1) the adequacy of parking in individual development projects (or even all development allowed under the Plan) cannot be determined in a long term planning document; and (2) parking cars is not an environmental impact.

3. SUMMARY OF GENERAL PLAN UPDATE CONDITIONS

a. Transportation Mode Share

The journey to work mode share results provide an indication of whether the proposed General Plan Update would achieve a fundamental goal of increasing transit, bicycle, and pedestrian travel. The projected percentage of travel by mode, as generated by the City's travel demand model, is shown in **Table 9**.

Existing transit mode share increases with proposed General Plan Update conditions because of the increased focus of land use growth around rail stations and key bus lines as well as increased transit service including the BART extension to Downtown, Bus Rapid Transit (BRT) lines such as Route 523, and light rail extensions.

Although the total number of auto trips is higher for the proposed General Plan compared to existing conditions, the auto mode share percentage decreases by up to approximately ten percent. Carpooling, however, declines, so the decrease is due primarily to increased bicycle and transit use. Model results presented in this table are not fully reflective of General Plan policies and programs (such as Transportation Demand Management programs, expansion of the City's bicycle/trail network, increased transit frequency to serve increased development intensity at transit nodes, and construction of High Speed Rail) that would affect the model outputs and further reduce automobile mode share.

While the TDF model has been enhanced to account for the design, diversity, and density of land uses within relatively small geographic areas, the model is not sensitive enough to account for all future bike and walk trips within smaller neighborhood areas that will occur as a result of smart growth development and pertinent General Plan policies. Therefore, the model provides a conservative upper estimate of automobile trips and may underestimate the proportion of bicycle, walk and transit trips.

Although the total number of Shared Ride mode trips increases from the base to the future year, the total automobile mode share decreases. The TDF model forecasts that high occupancy vehicle (HOV) lanes are at or near capacity in the future during the peak hours, so there is little excess capacity available to allow additional shared ride mode trips. Therefore, the overall automobile share decreases because trips that would have been made as a shared ride trip are instead taken on other modes due to the limited HOV capacity.

TABLE 9
JOURNEY TO WORK MODE SHARE

Mode	Number of Person Trips and Percent Mode Share for all Purposes			
	Existing Conditions	Current General Plan Conditions	Proposed General Plan Update Conditions	Δ in Mode Share (Proposed General Plan Update Conditions – Existing Conditions)
Drive Alone	682,000 79%	1,031,000 70%	1,105,000 67%	+423,000 -12%
Shared Ride 2	101,000 12%	208,000 14%	221,000 14%	+120,000 +2%
Shared Ride 3+	35,000 4%	69,000 5%	74,000 5%	+39,000 +1%
Auto Subtotal	817,000 95%	1,308,000 90%	1,400,000 85%	+583,000 -10%
Transit	29,000 3%	117,000 8%	180,000 11%	+151,000 +8%
*Drive to/from Transit**	*8,000*	*64,000*	*100,000*	+92,000
*Walk to/from Transit**	*49,000*	*169,000*	*240,000*	+191,000
Bicycle	6,000 1%	16,000 1%	30,000 2%	+24,000 +1%
Walk	11,000 1%	18,000 1%	28,000 2%	+17,000 +1%

Note: Although work trips may occur at any time of the day, a majority of work trips occur during typical peak periods (6:00 AM to 10:00 AM and 3:00 PM to 7:00 PM).

* Walk to/from Transit and Drive to/from Transit trips are not included in the mode share percentages. Note that all non-auto access to transit is considered a Walk trip.

The values shown have been rounded for presentation purposes.

Current General Plan conditions are displayed for informational purposes only and not used to determined impacts.

Source: Fehr & Peers, 2010.

b. Land Use Based Vehicle Miles Traveled (VMT)

Table 10 shows the number of journey-to-work motor vehicle trips for San José employees by place of residence forecast by the model for each scenario.

TABLE 10
IMPORTED WORK MOTOR VEHICLE TRIPS

San Jose Employees Place of Residence	Existing Conditions	Current General Plan	Proposed General Plan Update
San Francisco County	2,875	6,005	8,915
San Mateo County	10,103	20,259	30,670
Alameda County	31,680	62,609	86,624
Contra Costa County	4,875	9,074	14,942
Solano County, Napa County, Sonoma County, Marin County	837	3,051	4,354
Santa Cruz County	11,849	10,202	8,342
Monterey County	2,477	7,552	4,546
San Benito County	3,155	5,085	4,803
San Joaquin County	6,410	12,223	12,969
Total of all Other Counties (excluding Santa Clara County)	74,262	136,059	176,167
Santa Clara County (excludes San Jose)	100,571	165,187	231,504
Total from Outside of San José	*174,833*	*301,246*	*407,671*

Source: City of San Jose, 2010.

Table 11 shows the percentage of work motor vehicle trips for San José employees by place of residence assumed in the model and this analysis for each scenario.

TABLE 11
IMPORTED WORK MOTOR VEHICLE TRIP PERCENTAGES

San Jose Employees Place of Residence	Existing Conditions	Current General Plan	Proposed General Plan Update
San Francisco County	2%	2%	2%
San Mateo County	6%	7%	8%
Alameda County	18%	21%	21%
Contra Costa County	3%	3%	4%
Solano County, Napa County, Sonoma County, Marin County	Less than 1%	1%	1%
Santa Cruz County	7%	3%	2%
Monterey County	1%	2%	1%
San Benito County	1%	2%	1%
San Joaquin County	4%	4%	3%
All Other Counties (excluding Santa Clara County)	42%	45%	43%
Santa Clara County (excludes San Jose)	58%	55%	57%
Total	*100%*	*100%*	*100%*

Note: Percentages were rounded for presentation purposes.
Source: City of San Jose, 2010.

Table 12 shows the daily land use based VMT per service population associated with development within the City. VMT calculations are presented in **Appendix B**. The VMT per service population increases from existing conditions by approximately 1.5 vehicle miles per person per day. This is projected to occur because of overall city growth and increased destination choices not only within San José but also in other localities within the Bay Area region which influence travel patterns. Also, although the allocation of a significant percentage of the new development will be located near major transit facilities, the new BRT routes, and\or nearby complementary land uses, some new development will not occur in these locations. Furthermore, VMT increases compared to existing conditions because, while there are more internalized trips in San Jose and fewer trips to/from remaining parts of Santa Clara County, there are also more trips to/from other Bay Area Counties. The growth in the number of trips to and from Alameda, Contra Costa, Solano, Monterey, and San Joaquin counties contributes to an increase in the City's VMT per service population. Finally, as noted above, VMT per service population is based on raw model output and does not fully reflect implementation of General Plan policies and programs that would further reduce VMT by increased use of non-auto modes.

TABLE 12
VEHICLE MILES TRAVELED PER CITYWIDE SERVICE POPULATION

Period	VMT per Service Population (Residents + Employment)		
	Existing Conditions	Current General Plan Conditions	Proposed General Plan Update Conditions
Daily	14.62	16.96	16.08

Note: VMT ratio calculations are land use based VMT (city generated VMT - all II, 1/2 IX & XI, no XX) divided by the total number of residents and jobs. Land used based VMT excludes through trips that do not originate or end in San José.

Current General Plan conditions are displayed for informational purposes only.

Source: City of San Jose, 2010.

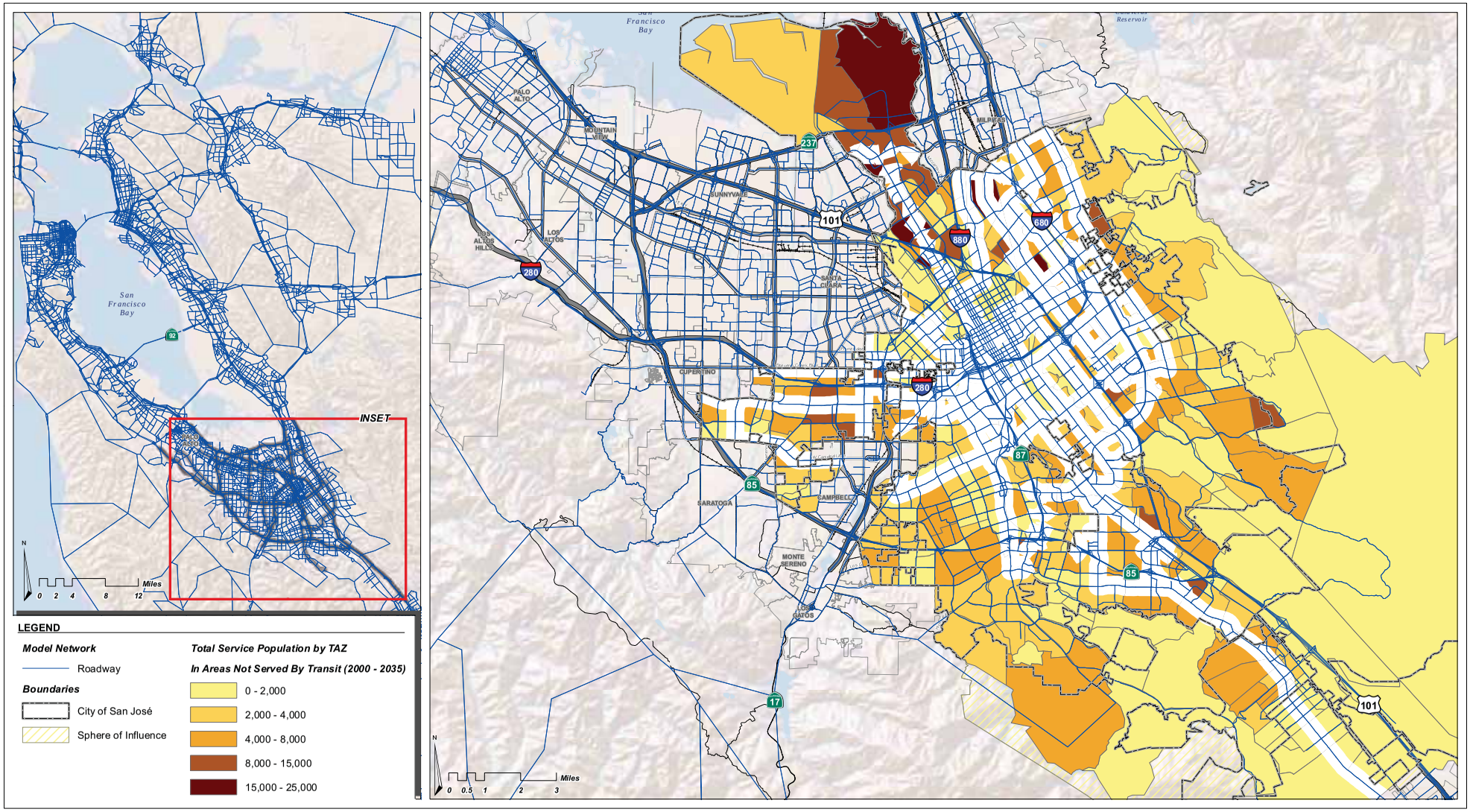
c. Access to Transit

Table 13 shows the total number of residents and jobs within a ½-mile walking distance around each of the rail stations in San José and a ¼-mile walking distance around each of the existing top 15 bus routes. The proportions of residents and employment to their respective citywide totals are also shown. **Figure 12** shows the proposed General Plan Update's growth in service population in areas that are not within walking distance to transit.

TABLE 13
TRANSIT ACCESS SUMMARY

Population Category	Amount of Total (Existing and New) Development within Walking Distance of Rail Stations and Top 15 Bus Routes and the Percent of Citywide Total (Existing and New) Development		
	Existing Conditions	Current General Plan Conditions	Proposed General Plan Update Conditions
Residents	506,000 50%	694,000 58%	796,000 59%
Employment	217,000 60%	340,000 54%	479,000 57%

Note: The values shown have been rounded for presentation purposes.
Current General Plan conditions are displayed for informational purposes only.
Source: Fehr & Peers, 2010.



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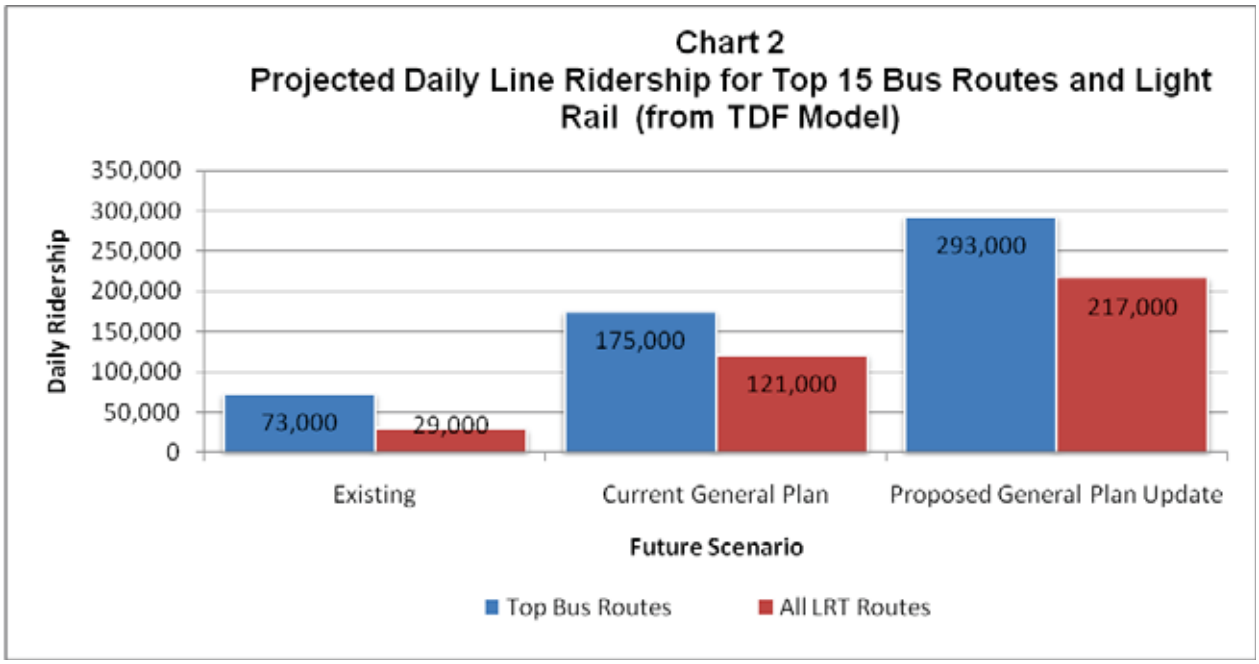
Total Service Population by TAZ in Areas Not Served By Transit
FIGURE 12

d. Transit Ridership

Transit Line Ridership

Model transit line ridership increases substantially with the proposed General Plan Update. Line ridership is heavily influenced by the number of jobs within walking distance of transit stations or stops and the drive/park share[12]. Since the proposed General Plan Update has a high amount of jobs, transit line ridership is higher than existing conditions. Line ridership also accounts for transit boardings outside of the City of San José for those transit lines that cross city limits. **Chart 2** shows the projected daily line ridership for the top 15 bus routes and light rail.



Transit Station Ridership

The purpose of transit station ridership is to compare daily boardings at 11 stations that would be considered a representative sample of the transit stations in the City. The comparison shows how land use around the stations affects transit ridership. Transit station results are based on the TDF model mode choice output and represent an estimate of transit riders using rail stations for services such as BART,

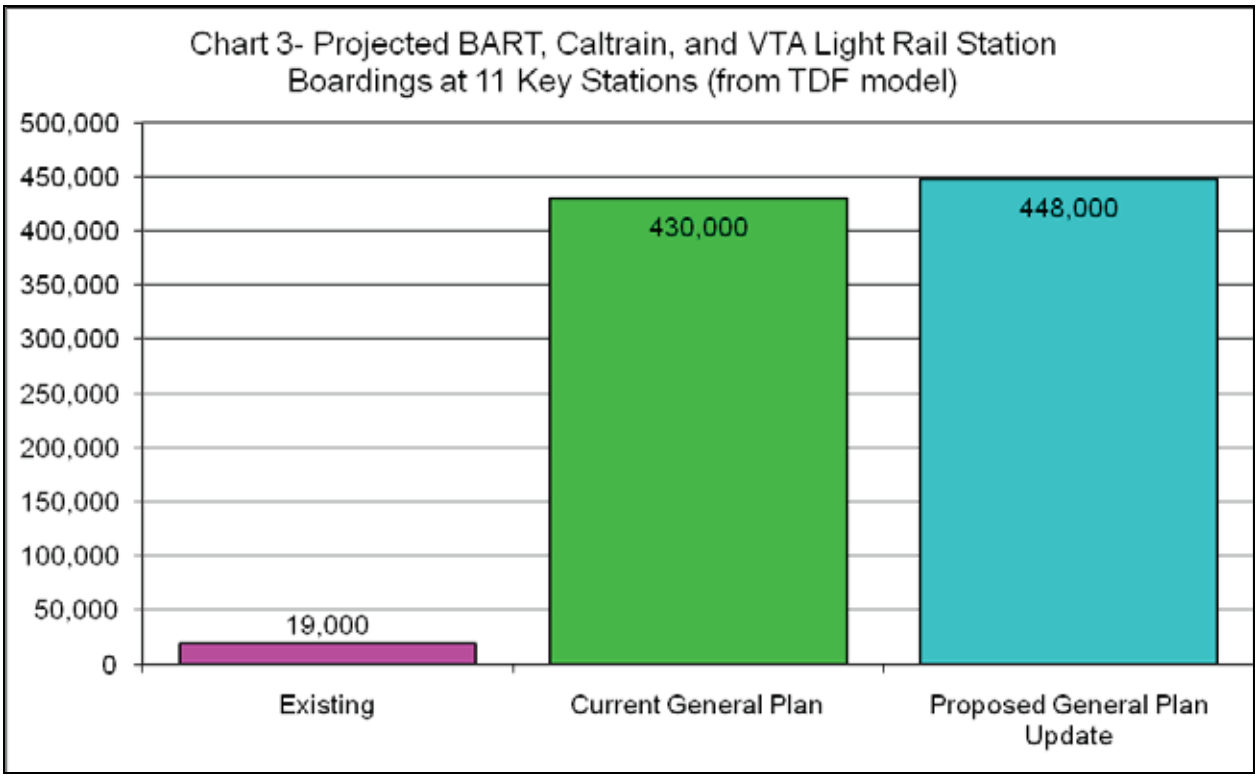
[12] The Drive/Park share is the percentage of transit riders who drive, park, and then board transit at a station or stop (versus other transit riders who take different modes of transit to the station or stop such as walking),

Caltrain, and VTA light rail. For the purposes of this impact analysis, the following 11 stations were selected for the transit station ridership estimates from the model:

- Alum Rock (BART)
- Berryessa (BART)
- Downtown San José (BART/VTA)
- Mckee (VTA)
- Ohlone-Chynoweth (VTA)
- Santa Clara (BART)*
- Bascom (VTA)
- Capitol (VTA)
- Eastridge (VTA)
- Milpitas (BART)*
- San José Diridon (BART/Caltrain/VTA)

* An asterisk indicates stations not within the City of San José but are within accessible range for residents and employments in San José.

Chart 3 shows the projected BART, Caltrain, and VTA Light Rail Station daily boardings for the 11 key stations identified above.



Station ridership also accounts for transit boardings outside of the City of San José for those stations not within city limits. Station ridership, like line ridership, is heavily influenced by the number of jobs within walking distance of transit stations and the drive/park share. Because the proposed General Plan Update has a higher amount of jobs near the key transit stations compared to existing conditions, the total station boardings are substantially higher than existing conditions. The large increase in boardings between the proposed General Plan Update and existing conditions is also due to the BART extension.

San José BART Ridership

BART ridership results are based on the TDF model mode choice output and represent boardings made on BART by the City's service population (residents + employment). In other words, BART ridership accounts for the total amount of riders with one or both ends within city limits.

BART ridership, like line and station ridership, is heavily influenced by the number of jobs within walking distance of transit routes and the drive/park share. The proposed General Plan Update is projected to have 198,000 daily BART boardings made by the City's service population. BART rider boardings made on BART by the City's service population commute to/from locations throughout the Bay Area including other cities in Santa Clara County and the East Bay.

e. Screenline Analysis

Consistent with previous Citywide transportation analyses, traffic operations of the screenlines based on existing and future traffic volumes from the model and the theoretical capacity of each screenline were analyzed for both scenarios. The volume and capacity across each screenline is the sum of the congested roadway segment, defined as having a volume-to-capacity ratio (v/c) greater and equal to 0.9, volumes and capacities that cross the screenline. A total of 27 screenlines were analyzed. Because screenline impacts are determined by the congested links on the screenline, the analysis does not include under-utilized capacity on the roadway segments that are not congested.

The proposed General Plan Update is expected to result in congestion on approximately 96 percent of the screenlines. Even with some variation in geographic distribution of future growth, the congested screenlines are nearly the same for all scenarios. **Appendix A** shows the screenline results for the AM and PM peak periods. Impacts are associated with existing conditions versus proposed General Plan Update conditions.

f. Transit Priority Corridors

The Proposed General Plan places a strong emphasis on increased transit utilization including fixed route bus service. To that end, 14 transit priority corridors were evaluated for the purpose of this impact analysis and are presented in **Table 14**. Locations of transit priority corridors, also known as "grand boulevards", are previously illustrated on **Figure 6**.

Based on the significance criteria listed above, transit priority corridors that would experience a substantial reduction in travel speeds include:

- Alum Rock Avenue from Capitol Avenue to US 101
- Camden Avenue from SR 17 to Meridian Avenue
- Capitol Avenue from South Milpitas Boulevard to Capitol Expressway
- Monterey Road from Keyes Street to Metcalf Road
- First Street from CA 237 to Keyes Street
- Stevens Creek Road from Bascom Avenue to Tantau Avenue
- Tasman Drive from Lick Mill Road to McCarthy Boulevard
- The Alameda from Alameda Way to Delmas Avenue

TABLE 14
TRANSIT PRIORITY CORRIDOR IMPACT SUMMARY

Roadway Segment	Cross Street	Cross Street	Distance (Miles)	AM Peak Hour Travel Speed (MPH)	
				Existing Conditions	Proposed General Plan Conditions
Second St.	San Carlos St.	St .James St.	0.6	11.5	11.4
Alum Rock Ave.	Capitol Ave.	US 101	3.4	20.0	**12.9**
Camden Ave.	SR 17	Meridian Ave.	5.2	24.0	**18.0**
Capitol Ave.	S. Milpitas Blvd.	Capital Expwy.	7.6	24.1	**17.5**
Hillsdale Ave./ Capitol Expwy.	Capitol Ave.	Meridian Ave.	19.8	28.6	23.8
E. Santa Clara St.	US 101	Delmas Ave.	4.6	20.4	16.2
Meridian Ave.	Park Ave.	Blossom Hill Rd.	12.2	25.5	19.6
Monterey Rd.	Keyes St.	Metcalf Rd.	18.2	24.6	**17.0**
First St.	CA 237	Keyes St.	17.2	22.6	**13.4**
San Carlos St.	Bascom Ave.	SR 87	4.2	24.3	19.7
Stevens Creek Blvd.	Bascom Ave.	Tantau Ave.	8.2	23.1	**16.8**
Tasman Dr.	Lick Mill Blvd.	McCarthy Ln.	5.0	24.3	**9.5**
The Alameda	Alameda Wy.	Delmas Ave.	4.2	22.6	**14.2**
W. San Carlos St.	SR 87	Second St.	1.3	19.9	17.5

Note: The values shown have been rounded for presentation purposes.
Source: Fehr & Peers, 2010.

g. Adjacent Jurisdictions

Operations of adjacent jurisdiction roadway segments outside the City of San José boundaries were reviewed to determine the potential impacts of the proposed General Plan Update. **Table 15** summarizes these results.

Given changes in land use, trip patterns, and behavior between the two scenarios, vehicular traffic on roadway segments within several jurisdictions is projected to increase with the proposed General Plan Update land uses as compared to existing conditions.

A roadway segment within adjacent jurisdictions is considered to be deficient if the future volume-to-capacity (V/C) ratio is 1.0 or greater during the AM peak 4-hour period in the year 2035. Given the large population and employment projected to reside in the region, and the complex travel patterns created by the large population and employment numbers, only a portion of trips on any roadway segment in adjacent jurisdictions are expected to have originated from a resident or job within City of San José. Therefore, a deficient roadway segment in adjacent jurisdictions is attributed to City of San José General Plan when the trips from the City are 10 (ten) percent or more on the deficient segment. The impact to an adjacent jurisdiction is considered significant when 25 percent or more of total deficient lane miles in that

adjacent jurisdiction are attributable to San Jose. The 25 percent threshold represents what would be a noticeable change in traffic by San José General Plan.

TABLE 15
ADJACENT JURISDICTION IMPACTS SUMMARY

(BASED ON AM PEAK 4-HOUR PERIOD VOLUMES)

	Existing Conditions			Proposed General Plan Update		
City	**Total Lane Miles with Deficient V/C Ratio**[1]	**Impacted Lane Miles** (San Jose traffic ≥ 10% of volume)	**Percent of Impacted Lane Miles Affected**	**Total Lane Miles with Deficient V/C Ratio**	**Impacted Lane Miles** (San Jose traffic ≥ 10% of volume)	**Percent of Impacted Lane Miles Affected**
Campbell	0.13	0.13	100	0.42	0.42	100
Cupertino	0.67	0.67	100	7.52	5.45	73
Gilroy	0.00	0.00	0	1.65	1.65	100
Los Altos	0.78	0.78	100	2.52	2.52	100
Los Altos Hills	0.17	0.02	14	3.61	3.00	83
Los Gatos	0.12	0.12	100	0.90	0.90	100
Milpitas	0.73	0.73	100	22.17	22.17	100
Monte Sereno	0.00	0.00	0	0.00	0.00	0
Morgan Hill	0.00	0.00	0	1.97	1.97	100
Mountain View	0.72	0.65	90	11.76	10.83	92
Palo Alto	0.48	0.16	33	7.58	4.76	63
Santa Clara	0.17	0.17	100	1.95	1.95	100
Saratoga	1.26	1.26	100	5.71	5.71	100
Sunnyvale	0.00	0.00	0	1.45	1.42	98
Caltrans Facilities[2]	5,093.26	4,391.72	86	4,951.58	4,584.04	93
Santa Clara County Facilities	3.01	3.01	100	21.33	21.33	100

Notes: Impacts are identified in **bold** text.

1 Lane miles of less than 0.5 were rounded to 0. For evaluating significant impacts, if impacted lane miles attributable to the City are less than 0.5, impacts are considered *less-than-significant*.

2 Includes all Caltrans facilities within Santa Clara County.

Source: Fehr & Peers, 2010.

The following roadways were analyzed to determine impacts presented in **Table 15**. CMP system roadways are identified in *italicized* text. Minor arterials were also analyzed to determine impacts presented in **Table 15**; however, they are not specifically identified below.

- **Campbell:** *Hamilton Avenue*, Campbell Avenue, Winchester Boulevard
- **Cupertino:** Homestead Road, Foothill Boulevard, Bubb Road, *Stevens Creek Boulevard,* Pruneridge Avenue, North Wolfe Road, *De Anza Boulevard,* Stelling Road
- **Gilroy:** Monterey Street, Leavesley Road, Hecker Pass Highway, East 10th Street, Monterey Street, East Luchessa Avenue

- **Los Altos Roadways:** North San Antonio Road, Main Street, Almond Avenue, South San Antonio Road, South El Monte Avenue, Grant Road, Fremont Avenue
- **Los Altos Hills Roadways:** Hillview Avenue, El Monte Road
- **Los Gatos Roadways:** Winchester Boulevard, Lark Avenue
- **Milpitas Roadways:** Dixon Landing Road, McCarthy Boulevard, California Circle, Milpitas Boulevard, Jacklin Road*, Abel Street*, Thompson Street, Main Street, Yosemite Drive, Canton Drive*, Calaveras Boulevard*, Park Victoria Drive, Carnegie Drive, Tasman Avenue, Great Mall Parkway
- **Monte Sereno Roadways:** Winchester Boulevard, Saratoga Los Gatos Road
- **Morgan Hill Roadways:** Cochrane Road, Butterfield Boulevard, Dunne Avenue, Tennant Avenue, Monterey Street
- **Mountain View Roadways:** Old Middlefield Way, Amphitheatre Parkway, Charleston Road, North Shoreline Boulevard, *San Antonio Road*, West Middlefield Road, California Street, Moffett Boulevard, Cuesta Drive, Grant Road, North Whisman Road, East Middlefield Road
- **Palo Alto Roadways:** University Avenue, Sand Hill Road, Embarcadero Road, Middlefield Road, East Charleston Road, Alma Street*, San Antonio Road*
- **Santa Clara Roadways:** North Mathilda Avenue, Crossman Avenue, Lick Mill Road, East Arques Avenue, Monroe Street, Granada Avenue, Benton Street, Homestead Road, Pruneridge Avenue, Washington Street, Lincoln Street*, Bowers Avenue*, Calabazas Boulevard, Walsh Avenue, Martin Avenue, Scott Boulevard, *El Camino Real, The Alameda*, Kifer Road, *Great America Parkway*, Kiely Boulevard
- **Saratoga Roadways:** De Anza Boulevard, Saratoga Sunnyvale Road, Saratoga Avenue, Quito Road, Fruitvale Avenue, Saratoga Los Gatos Road
- **Sunnyvale Roadways:** Caribbean Drive, Fair Oaks*, Mathilda Avenue*, Maude Avenue, Middlefield Road, Evelyn Avenue, Mary Avenue, Remington Drive, Hollenbeck Avenue, Fremont Avenue*, Sunnyvale-Saratoga Road*, South Wolfe Road, East Fremont Avenue, Reed Avenue, East Arques Avenue, East Duane Avenue, Oakmead Parkway
- **Caltrans Facilities:** *CA-237, US-101, SR-85, I-880, I-680, I-280, SR-17 (Caltrans facilities include all freeways and certain major surface streets that are designated as State Highways)*
- **Santa Clara County Facilities:** *Central Expressway, Lawrence Expressway, San Tomas Expressway, Foothill Expressway, Montague Expressway*

4. IMPACTS AND MITIGATION MEASURES

The following discussion outlines less-than-significant and potentially significant impacts that may occur with the implementation of the proposed General Plan Update.

a. Less Than Significant Impacts

Design Considerations

Based on their review of the proposed roadways modifications, the consulting engineers and the City's Department of Transportation staff have concluded that implementation of the proposed General Plan

Update would not increase hazards due to sharp curves, dangerous intersections or other elements of the proposed General Plan transportation system. There are no specifically proposed projects being evaluated at this time. Consistent with Policies and Actions in the proposed General Plan Update, future development proposals will be reviewed on a case-by-case basis as they arise and any proposed designs for access or interface with the public street network will be required to conform to City standards..

None of the transportation system improvements proposed in the General Plan Update are expected to introduce new safety hazards at intersections or along roadway segments. Most anticipated transportation system improvements, such as median installations, enhanced crosswalks for pedestrians, and the installation of bicycle lanes or wide curb lanes to enhance circulation for bicyclists, would be designed to improve safety. Therefore, based on this programmatic review, this impact would be ***less-than-significant***.

Air Traffic Impacts

In 2009, approximately 8.3 million annual passengers were estimated to travel through the Norman Y. Mineta San Jose International Airport (SJC).[13] Based on the SJC Master Plan adopted in July 2006, annual passengers are expected in increase by 9.3 million in 2017.

Building heights in the City's downtown are limited by Federal Aviation Administration (FAA) requirements, due to the proximity to the airport, and safety zones have been established around San Jose International Airport (SJC) where land uses are limited. New and existing land uses in the vicinity of SJC and airport operations are required to comply with FAA and State of California safety requirements for established safety zones.

Implementation of the proposed General Plan Update would not result in physical modifications to SJC runways or otherwise alter air traffic patterns. Flight operations would continue to be governed by federal and state aeronautical regulations and increased air traffic under these conditions would not result in new substantial safety risks due to changes in air traffic levels. Therefore, safety risks associated with changes in air traffic levels resulting from the General Plan update would be ***less-than-significant***.

Pedestrian Impacts

The proposed General Plan Update would encourage walking within San Jose by improving pedestrian conditions, increasing pedestrian safety, and creating a land use context supportive of non-motorized travel. The proposed General Plan Update specifies policies and implementing actions to achieve this end (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). Implementation of the proposed General Plan Update would not substantially disrupt existing pedestrian facilities; interfere with planned pedestrian facilities; provide pedestrian facilities that do not meet current ADA best practices; or conflict with adopted pedestrian system plans, guidelines, policies or standards. Therefore, pedestrian impacts would be ***less-than-significant***.

[13] Source: Norman Y. Mineta San Jose International Airport Facts and Figures, June 2010.

Bicycle Impacts

The proposed General Plan Update would place a strong emphasis on bicycling as a means of replacing short automobile trips within San Jose. As mentioned previously, the City's Bike Plan 2020 provides a foundation for enhancing the bikeways network and increasing the mode share of bicycle travelers. The proposed General Plan Update supports the goals outlined in the City's Bike Plan 2020 and contains policies and implementing actions 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). Implementation of the proposed General Plan Update would not substantially disrupt existing bicycle facilities; interfere with planned bicycle facilities; conflict or create inconsistencies with adopted bicycle system plans, guidelines, policies or standards; and would provide secure and safe bicycle parking in adequate proportion to anticipated demand. Therefore, bicycle impacts would be ***less-than-significant***.

Mode Share Impacts

The proposed General Plan Update would encourage walking, bicycling, and transit within San Jose by improving pedestrian and bicycling conditions, increasing pedestrian and bicyclists' safety, and creating a land use context supportive of non-motorized travel. The proposed General Plan Update specifies policies and implementing actions to achieve this end (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).

As shown in **Table 11**, the journey to work automobile mode share would decrease from 95 percent under existing conditions to 85 percent in 2035 with the proposed General Plan update. Implementation of the proposed General Plan would result in a reduction of the City's automobile mode share; therefore, impacts to mode split would be ***less-than-significant***.

Emergency Response Time Impacts

The proposed General Plan Update will continue to monitor emergency response times and ensure that developments of fire service facilities and delivery keep pace with development and growth in the City. The proposed General Plan Update specifies policies to achieve this end (CS-1.1, CS-1.3, CS-1.21, and CS-1.22). Implementation of the proposed General Plan Update would not increase emergency response times. Therefore, emergency response time impacts would be ***less-than-significant***.

Planned Transit Service or Facilities Impacts

As previously discussed, planned transit services and facilities include additional rail service via the future BART extension, light rail extensions, new BRT service, and the proposed California High Speed Rail project. Based upon a review of existing, planned and/or proposed routes and r ights-of-way, implementation of the proposed General Plan Update would not substantially disrupt existing transit service, or interfere with planned transit services or facilities. Therefore, impacts on transit would be ***less-than-significant***.

b. Potentially Significant Impacts

Screenline Impacts

Impact TRANS-1. The proposed General Plan would impact 96 percent of screenlines within the City. *(Significant)*

Based on the City's identified criteria for roadway segment operations, approximately 96 percent of screenlines would be significantly impacted under the proposed General Plan Update. **Appendix A** shows the number and locations of the screenlines with impacts in the AM and PM peak periods.

To fully mitigate these impacts, substantial vehicular capacity improvements would need to be implemented. This would include the construction of additional through lanes on existing roadways and possibly new roadway segments. Given the generally built out nature of the City, these capacity enhancement projects (beyond those included in the proposed transportation diagram) would likely involve substantial right-of-way acquisition, building removal, and/or reduction in adjacent bicycle/pedestrian facilities. However, the proposed General Plan Update recognizes and accepts that there will be increased levels of congestion resulting from new development. This reflects a change in policy for the City to acknowledge that transportation planning based solely on roadway traffic operations (i.e. analysis based on traffic level of service and volume to capacity ratios), which considers only driver comfort and convenience, is not desirable since it fails to acknowledge other users of the circulation system and other community values.

In evaluating the roadway system, an impact to roadway screenlines may be acceptable to a community when balanced against other community values related to resource protection, social equity, economic development, and consideration of pedestrians, bicyclists, and transit users. In addition, mitigating impacts to roadway screenlines is directly linked to roadway infrastructure costs. Widening a road to achieve a lower volume to capacity ratio results in higher expenditure of infrastructure dollars for wider roadways, which do not necessarily serve all users of the circulation system. Roadway widening also provides capacity that will be excess for the majority of the day outside the peak periods. Furthermore wider roadways, in general, are inconsistent with General Plan Sustainable City goals promoting a more livable city, may cause greater impacts to biological resources and discourage roadway use by pedestrians and bicyclists.

Based on the considerations above, no mitigation measures were identified that would be feasible to reduce screenline impacts to a less than significant level.

Therefore, impacts to roadway screenlines remain ***significant and unavoidable***.

<u>Transit Priority Corridor Impacts</u>

Impact TRANS-2. Increased traffic congestion resulting from implementation of the proposed General Plan would result in increased vehicle travel times on selected transit priority corridors, which could substantially slow the movement of bus transit. *(Significant)*

Increased vehicle traffic generated by the development reflected in the proposed General Plan Update would result in increased traffic congestion. That congestion would affect several transit priority corridors, increasing travel times and disrupting the ability of the buses using these corridors to maintain convenient and reliable headways (time interval between arrivals). The seven transit priority corridors that are projected to drop below 15 mph or decrease by 25 percent or more, resulting in a significant impact from the General Plan Update are:

- **Alum Rock Avenue** from Capitol Avenue to Highway 101
- **Camden Avenue** from Highway 17 to Meridian Avenue
- **Capitol Avenue** from South Milpitas Boulevard to Capitol Expressway
- **Monterey Road** from South Milpitas Boulevard to Capitol Expressway
- **First Street** from Keyes Street to Metcalf Road

- **Stevens Creek Boulevard** from SR 237 to Keyes Street
- **Tasman Drive** from Bascom Avenue to Tantau Avenue
- **The Alameda** from Alameda Way to Delmas Avenue

To promote transit as a practical alternative to the automobile consistent, reliable, and frequent transit service with high frequency headways (i.e., 10 minutes or less) is critical. Dedicated transit facilities at highly congested areas would help maintain on-time performance and generate additional ridership. Likewise, unreliable service caused by poor on-time performance will likely shift transit riders to other travel modes such as the automobile, which in turn would cause greater levels of congestion, further reducing the effectiveness of transit. The proposed General Plan includes policies to support transit and make it a realistic travel choice (Policies TR-1.1 through TR-1.8 and TR-3.1 through TR-3.4, and TR-12.1; Implementing Actions TR-1.12 through 1.15, TR-4.1 through TR-4.4, TR-4.5, TR-9.8, TR-12.6, and TR-12.7) in the City.

The policies and implementing actions in the proposed General Plan Update may reduce levels of congestion on transit corridors. However, as it cannot be assured that these policies alone will substantially reduce this impact implementation of the following policy as part of the General Plan would substantially reduce impacts to transit services along roadways designated as transit priority corridors:

- The City will develop and implement a Transit Priority Corridor Efficiency Plan. This Plan would include measures to maintain transit travel speeds, identify funding sources and articulate a cooperative strategy between the City and VTA to ensure transit services on key corridors maintain an average travel speed of 15 mph and do not decrease from existing conditions by 25 percent or more during the AM peak hour.

With adoption of the new policy above and the policies and implementing actions contained in the proposed General Plan Update, this impact would be reduced to a ***less-than-significant*** level. If the City does not adopt the policy to develop a Transit Priority Corridor Efficiency Plan, this impact would be considered ***significant and unavoidable***.

<u>Daily Land-use Based Vehicle Miles of Travel Impacts</u>

Impact TRANS-3. ***Increased daily land-use based vehicle miles of travel (VMT)*** **with the proposed General Plan Update is projected due to population and employment growth planned within the City to occur at a rate greater than the increase in population and employment.** ***(Significant)***

Daily land use based VMT per service population for the proposed General Plan would increase over existing conditions by approximately 1.1 vehicle miles per person per day. This is projected to occur because of overall city growth and increased destination choices not only within San José but also in other localities within the Bay Area region which influence travel patterns. Furthermore, although the allocation of a significant percentage of the new development will be located near major transit facilities, the new BRT routes, and/or nearby complementary land uses, some new development will occur away from these locations. This includes planned land use development in the Alviso, Coyote Valley, Edenvale, and Evergreen districts.

Based on model forecasts, the City's VMT per service population would increase over existing conditions with the implementation of the proposed General Plan. VMT per service population is also based on raw model outputs and does not fully reflect implementation of General Plan policies and programs that could reduce VMT by increased use of non-auto modes.

The proposed General Plan Update includes a number of policies and actions that seek to reduce the City's VMT per service population (for the ease of reference in this section, policies are provided below with their full text, instead of listed by policy number).

Policy TR-9.1. Enhance, expand and maintain facilities for walking and bicycling, particularly to connect with and ensure access to transit and to provide a safe and complete alternative transportation network that facilitates non-automobile trips. *(Action TR-9.8)*

Policy TR-9.6. Require that large employers develop, as part of the development entitlement process, Transportation Demand Management programs to reduce the vehicle trips generated by their employees. *(Action TR-9.11)*

Policy TR-9.7. Serve as a model for VMT reduction by implementing programs and policies that reduce VMT for City of San José employees. *(Action TR-9.11)*

Goals, policies, and actions intended to achieve an initial VMT reduction of 10%, followed by a 20% reduction, and ultimately a 40% reduction by 2040 are also included in the proposed General Plan Update.

With adoption of the policies and implementing actions contained in the General Plan Update, this impact would be reduced but could remain significant due to regional factors influencing VMT that are beyond the City's control. Therefore, this impact is considered ***significant and unavoidable***.

Adjacent Jurisdiction Impacts

Impact TRANS-4. Motor vehicle traffic and congestion resulting from implementation of the proposed General Plan Update would increase on roadway segments outside of the City of San Jose. *(Significant)*

Roadways within adjacent jurisdictions are considered to be deficient if the volume to capacity (V/C) ratio under proposed General Plan Update conditions is 1.0 or greater, and is considered an impact when the trips from the City are 10 (ten) percent or more of the total traffic on these roadways. The impact is considered significant when the impacted roadway lane miles are 25 percent of the deficient lane miles.

With implementation of the proposed General Plan Update, 15 adjacent jurisdictions would have impacts on greater than one lane mile of roadways. These impacts are the aggregate of the major roadways within the adjacent jurisdiction boundaries of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Mountain View, Palo Alto, Saratoga, Sunnyvale, Milpitas, Morgan Hill, Santa Clara, Caltrans facilities, and Santa Clara County facilities.

The traditional response to mitigate significant traffic-related impacts, or increases in automobile trips on street segments, is to increase roadway capacity by providing additional lanes or facilities. In Santa Clara County, widening roads to provide additional travel lanes is no longer feasible in most cases because available right-of-way is already constrained and utilized by other land uses or transportation facilities. Dedication of additional land to paved roadways decreases landscaping, eliminates street trees/bus stops/bicycle lanes, reduces sidewalk widths, increases intersection sizes, and moves vehicular traffic (with associated noise and pollution) closer to residences and businesses.

The proposed General Plan Update recognizes and acknowledges that there will be increased levels of congestion resulting from new development, both within San Jose and elsewhere in the Bay Area. This reflects a change in policy for the City to acknowledge that transportation planning based solely on roadway traffic operations (i.e. analysis based on traffic level of service and volume to capacity ratios), which considers only driver comfort and convenience, is not desirable since it fails to acknowledge other users of the circulation system and other community values. In evaluating the roadway system, an impact to adjacent roadways may be desired when balanced against other community values related to resource protection, social equity, economic development, and consideration of pedestrians, bicyclists, and transit users.

Widening a road to achieve a lower volume to capacity ratio results in higher expenditure of infrastructure dollars for wider roadways that do not necessarily serve all users of the circulation system. Roadway widening also provides capacity that is excess for the majority of the day outside the peak periods. Furthermore wider roadways, in general, are inconsistent with goals promoting a more livable city, cause greater impacts to biological resources and discourage roadway use by pedestrians and bicyclists. In addition, mitigating impacts to affected roadway segments can have high infrastructure costs.

The proposed General Plan update contains several policies and actions that seek to reduce automobile travel. They include TR 1.1 through TR-1.9, TR 2.1 through 2.11, TR-3.1 through 3.4, TR-4.1 through 4.4, and TR-8.1 through 8.4. Implementation of these policies and actions would help reduce the magnitude of traffic impacts on adjacent jurisdictions.

The proposed General Plan update also includes an implementing action to encourage coordination with other jurisdictions:

CR-1.8 **Interagency Participation and Coordination.** Actively coordinate with regional transportation, land use planning, and transit agencies to ensure development and maintenance of a transportation network with complementary land uses that encourage travel by bicycle, walking, and transit, and ensure regional greenhouse gas emission standards are met.

Based on the considerations above, no mitigation measures are feasible to reduce adjacent jurisdiction impacts to a less than significant level. With adoption of the new policies and implementing actions contained in the General Plan Update, this impact would be reduced but could remain significant. Therefore, impacts to adjacent jurisdictions would remain ***significant and unavoidable***.

VII. ALTERNATIVES TO THE PROPOSED GENERAL PLAN

This section discusses two alternative land use and transportation scenarios to the proposed Envision 2040 General Plan Update.

1. CURRENT GENERAL PLAN

Growth under the current General Plan would present a "business-as-usual" approach and would be less likely to result in walkable, transit-oriented developments. As a result, the business-as-usual alternative would result in increased automobile trips and reduced multi-modal trips (i.e., transit, biking, and walking). Therefore, implementation of this alternative would result in greater impacts associated with increased automobile trips and r educed multi-modal trips compared to the proposed General Plan Update.

2. OTHER ALTERNATIVE SCENARIOS

a. Alternatives Evaluated Using Technical Analysis

Five additional scenarios were analyzed using the San José Travel Demand Forecasting (TDF) model to evaluate mode share, transit ridership, and VMT,[14]

Table 16 shows the number of dwelling units, the number of residents, and the employment in the City of San José for the current General Plan, each of the alternative scenarios, and the proposed General Plan.

When considering all trip purposes (e.g., to work, school, shopping), the "drive alone" mode share for all trip purposes does not substantially decrease from existing conditions in any of the scenarios. However, drive alone mode share does substantially decrease in all scenarios for daily commute trips to work. Conversely, commute trip mode share for transit substantially increases compared to the base year. Scenario 4 (with job to employed resident ratio of 1.5) has the lowest auto mode share and the highest transit mode share for all time periods studied. Scenario 3 (with job to employed resident ratio of 1.0) has the highest auto mode share and the lowest transit mode share for the same periods.

Future daily transit ridership was projected to increase nearly threefold compared to existing conditions for all scenarios. Transit ridership is higher in those scenarios that have higher job growth because jobs located within walking distance to transit typically generate more transit ridership than housing located within the same distance. Scenario 4 has the highest projected number of transit boardings, while Scenario 3 has the lowest number. This finding is consistent with the mode share findings cited above.

[14] A summary of the analysis for these scenarios can be found on the City of San Jose's website at: www.sanjoseca.gov/planning/gp_update/documents/FinalScenariosAnalysisMemo.pdf. Note that the methodology and assumptions used to analyze impacts for the proposed General Plan Update are not identical to the methodology and assumptions used to analyze impacts for the alternative scenarios. For this reason, analysis results for the proposed General Plan Update should not be compared directly to analysis results for the General Plan alternative scenarios.

TABLE 16
ALTERNATIVE SCENARIOS LAND USE SUMMARY

	Amount of Land Use							
	Existing Conditions	**Current General Plan**	**Proposed General Plan Update**	**Scen. 1**	**Scen. 2**	**Scen. 3**	**Scen. 4**	**Scen. 5**
Housing and Jobs								
Dwelling Units	309,350	391,460	429,350	398,000	445,000	468,320	398,000	445,000
Employment	369,450	625,000	839,450	716,000	730,000	708,980	895,500	801,000
Growth from Existing Conditions								
Dwelling Units	-	82,110	120,000	88,650	135,650	158,970	88,650	135,650
Employment	-	255,550	470,000	346,550	360,550	339,530	526,050	431,550

Source: City of San José, 2009.

Total vehicle miles traveled (VMT) increases from existing conditions to all future scenarios. Scenarios with high amounts of employment have the highest VMT because they have the most job growth, commute trips tend to be the longest trips made, and more workers would commute into the city from outside of the city. Scenario 4 has the highest amount of VMT per service population. Scenario 3 has the lowest amount of VMT per service population.

In general, scenarios with greater growth have greater congestion-related impacts and scenarios with greater levels of growth in locations near transit have a greater transit mode share.

b. Alternatives Qualitatively Evaluated

Expanded Transit Service Alternative

This alternative assumes transit services such as light rail, bus rapid transit (BRT) lines and other high frequency transit will be constructed in areas of the City that are currently outside of planned future transit areas and in areas of the City that have high VMT per service population. **Figure 12** shows the proposed General Plan Update's service population in areas that are not within walking distance to transit. Constructing or improving transit service in these areas such as the area near SR 237, the area between Zanker Road and I-880, the Edenvale industrial area and the Evergreen industrial area would provide a viable option for commuters who live or work in these areas, to take transit to reach their destination.

Future congestion related impacts, such as land-use based VMT and adjacent jurisdiction roadway impacts would potentially decrease to less-than-significant levels with the implementation of this alternative. This alternative would also potentially increase future transit mode share and decrease auto mode share such as changing the proposed General Plan Update's journey to work mode shares shown in **Table 9**.

This alternative requires extensive transit improvements such as constructing new lines or extensions, constructing new stops or stations and providing increased service on both new and existing routes. However, funding has not been identified for these types of improvements, and projects to implement new transit facilities would be led by VTA rather than the City.. If these new transit services were planned, designed and implemented, significant impacts resulting from the proposed General Plan Update would potentially be reduced to less-than-significant levels.

Employment Relocation along Transit Corridors Alternative

This alternative would remove planned employment growth in areas that do not have existing or future transit services, and relocate this employment along proposed high-frequency transit corridors shown in **Figure 6** such as North First Street, Monterey Highway, BART, and light rail corridors. Relocation of this new employment would provide commuters who work in these areas with a more viable option to take transit to their place of employment.

Future congestion related impacts, such as land-use based VMT and adjacent jurisdiction roadway impacts would potentially decrease to less-than-significant levels with the implementation of this alternative. Future transit mode share would also potentially increase with this alternative because of an increased focus of land use growth around rail stations and key bus lines combined with increased levels of transit service already planned, including the BART extension to Downtown, new Bus Rapid Transit (BRT) lines such as Route 523, and new light rail extensions. As a result, the auto mode share in the City would also potentially decrease with this alternative.

If employment growth in areas that do not have existing or future transit service were relocated along transit corridors, significant impacts from the proposed General Plan Update would potentially be reduced to less-than-significant levels.

APPENDIX A
SCREENLINE ANALYSIS

TABLE A1
SCREENLINE ANALYSIS FOR CONGESTED LINKS[1]

Screenline			Peak Hour	Current General Plan Analysis								Proposed General Plan Analysis							
ID No.	Name	Dir.		Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]	Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]
1	East of King/ Lundy/ Milpitas	EB	AM	1	578	1.05	576	1.05	-2	0.00	13	2	915	0.83	**1,085**	**0.99**	**170**	**0.15**	**13**
			PM	12	22,370	0.20	**35,001**	**1.04**	**12,630**	**0.84**	**228**	14	24,709	0.67	**40,044**	**1.05**	**15,335**	**0.39**	**66**
		WB	AM	6	13,513	0.67	**19,887**	**0.99**	**6,374**	**0.32**	**83**	13	22,616	0.68	**33,914**	**0.99**	**11,298**	**0.31**	**64**
			PM	1	5,275	0.17	**6,940**	**0.91**	**1,665**	**0.74**	**760**	7	13,127	0.64	**20,452**	**0.96**	**7,324**	**0.32**	**73**
3	North of Curtner	SB	AM	0	0	0.00	0	0.00	0	0.00	0	3	5,931	0.59	**9,397**	**0.94**	**3,467**	**0.34**	**83**
			PM	18	37,929	0.37	**48,316**	**1.13**	**10,387**	**0.76**	**141**	20	39,608	0.86	**47,549**	**1.05**	**7,940**	**0.19**	**57**
		NB	AM	10	22,387	0.92	**27,661**	**1.14**	**5,273**	**0.22**	**60**	13	26,398	0.93	**28,186**	**1.03**	**1,788**	**0.10**	**54**
			PM	2	6,620	0.35	**8,097**	**1.07**	**1,477**	**0.72**	**237**	5	10,131	0.74	**14,179**	**1.04**	**4,048**	**0.30**	**68**
4	South of Naglee/ Jackson/ Mabury	SB	AM	1	5,234	0.69	**8,000**	**1.05**	**2,765**	**0.36**	**190**	1	5,234	0.69	**8,535**	**1.12**	**3,301**	**0.43**	**190**
			PM	29	46,012	0.38	**63,150**	**1.17**	**17,137**	**0.78**	**103**	28	45,765	0.86	**60,768**	**1.14**	**15,003**	**0.28**	**47**
		NB	AM	14	28,211	0.84	**36,674**	**1.09**	**8,463**	**0.25**	**59**	15	35,896	0.91	**41,369**	**1.05**	**5,472**	**0.14**	**65**
			PM	1	5,831	0.19	**8,359**	**1.10**	**2,528**	**0.91**	**760**	11	16,133	0.57	**30,202**	**1.07**	**14,068**	**0.50**	**63**
5	East of I-680	EB	AM	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0
			PM	8	14,359	0.34	**18,800**	**1.00**	**4,441**	**0.66**	**131**	10	17,641	0.82	**24,925**	**1.03**	**7,284**	**0.21**	**53**
		WB	AM	2	4,966	0.95	**5,136**	**0.98**	**170**	**0.03**	**65**	9	16,644	0.88	**20,794**	**0.96**	**4,149**	**0.08**	**52**
			PM	0	0	0.00	0	0.00	0	0.00	0	2	1,814	0.49	**4,672**	**1.02**	**2,858**	**0.53**	**46**
6	South of SR-17 & I-880	S/E	AM	1	622	0.35	**828**	**0.92**	**206**	**0.57**	**45**	3	835	0.20	**3,307**	**1.02**	**2,472**	**0.82**	**34**
			PM	11	17,718	0.46	**25,959**	**1.20**	**8,241**	**0.75**	**88**	9	15,818	0.93	**20,323**	**1.20**	**4,505**	**0.27**	**47**
		N/W	AM	2	2,289	0.64	**4,030**	**1.12**	**1,741**	**0.48**	**45**	8	12,147	0.75	**16,471**	**1.08**	**4,324**	**0.33**	**50**
			PM	1	334	0.09	**1,917**	**1.07**	**1,583**	**0.97**	**90**	8	7,949	0.50	**15,628**	**1.03**	**7,679**	**0.54**	**50**
7	South of I-280	SB	AM	3	7,942	0.73	**10,201**	**0.94**	**2,259**	**0.21**	**90**	5	11,543	0.65	**16,915**	**0.95**	**5,372**	**0.30**	**88**
			PM	33	60,825	0.36	**80,564**	**1.10**	**19,738**	**0.75**	**129**	31	59,381	0.86	**73,857**	**1.04**	**14,476**	**0.18**	**55**
		NB	AM	18	31,822	0.93	**37,758**	**1.13**	**5,936**	**0.21**	**47**	23	47,118	0.90	**55,447**	**1.00**	**8,329**	**0.10**	**56**
			PM	4	6,745	0.40	**7,026**	**0.97**	**281**	**0.57**	**104**	12	18,710	0.65	**31,048**	**0.99**	**12,338**	**0.34**	**59**

TABLE A1
SCREENLINE ANALYSIS FOR CONGESTED LINKS[1]

Screenline			Peak Hour	Current General Plan Analysis								Proposed General Plan Analysis							
ID No.	Name	Dir.		Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]	Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]
8	North of SR-17 & I-880	S/E	AM	4	8,052	0.73	**9,448**	**0.93**	**1,396**	**0.20**	**69**	9	14,611	0.62	**21,983**	**0.97**	**7,372**	**0.35**	**65**
			PM	23	43,823	0.38	**63,139**	**1.22**	**19,316**	**0.84**	**123**	21	42,724	0.91	**55,812**	**1.17**	**13,088**	**0.26**	**55**
		N/W	AM	11	21,970	0.87	**34,226**	**1.31**	**12,256**	**0.44**	**57**	20	41,450	0.90	**53,024**	**1.15**	**11,574**	**0.25**	**57**
			PM	2	1,288	0.18	**3,800**	**1.06**	**2,513**	**0.88**	**90**	15	24,767	0.65	**40,888**	**1.10**	**16,121**	**0.45**	**63**
9	South of Tully	SB	AM	1	3,387	0.87	**3,841**	**0.98**	**453**	**0.12**	**97**	3	8,891	0.66	**13,087**	**0.98**	**4,196**	**0.31**	**111**
			PM	19	35,749	0.37	**47,005**	**1.12**	**11,256**	**0.75**	**126**	16	34,177	0.90	**41,884**	**1.08**	**7,707**	**0.18**	**59**
		NB	AM	9	22,171	0.91	**26,655**	**1.06**	**4,484**	**0.15**	**67**	14	32,220	0.93	**35,321**	**1.02**	**3,101**	**0.09**	**61**
			PM	2	6,060	0.29	**7,205**	**0.96**	**1,145**	**0.67**	**258**	10	20,141	0.70	**29,382**	**1.02**	**9,241**	**0.32**	**72**
11	South of Capitol Exp	S/E	AM	1	2,897	0.76	**3,671**	**0.97**	**774**	**0.20**	**95**	3	6,016	0.60	**9,395**	**0.93**	**3,378**	**0.34**	**83**
			PM	15	27,001	0.33	**31,976**	**1.02**	**4,975**	**0.69**	**135**	15	27,001	0.84	**31,916**	**1.02**	**4,915**	**0.18**	**53**
		N/W	AM	7	13,394	0.85	**15,351**	**0.97**	**1,957**	**0.12**	**56**	9	17,627	0.88	**18,899**	**0.99**	**1,272**	**0.11**	**55**
			PM	2	5,366	0.26	**6,924**	**0.92**	**1,558**	**0.66**	**258**	5	9,433	0.76	**12,504**	**1.01**	**3,071**	**0.25**	**62**
12	North of US-101 & I-880	SB	AM	3	10,496	0.92	**13,089**	**0.98**	**2,593**	**0.06**	**95**	3	10,496	0.92	**13,469**	**1.01**	**2,974**	**0.09**	**95**
			PM	8	18,784	0.35	**26,183**	**1.16**	**7,399**	**0.81**	**167**	8	18,784	0.91	**25,878**	**1.14**	**7,094**	**0.24**	**64**
		NB	AM	7	18,615	0.90	**26,630**	**1.29**	**8,015**	**0.39**	**73**	7	18,615	0.90	**24,731**	**1.19**	**6,117**	**0.30**	**73**
			PM	3	7,061	0.25	**11,008**	**1.08**	**3,947**	**0.83**	**240**	3	10,492	0.74	**15,857**	**1.12**	**5,365**	**0.38**	**117**
13	South of Central Expwy.	SB	AM	2	541	0.49	**1,079**	**0.98**	**537**	**0.49**	**13**	1	301	0.55	**568**	**1.03**	**266**	**0.48**	**13**
			PM	19	29,884	0.33	**40,728**	**1.07**	**10,844**	**0.73**	**118**	19	29,884	0.78	**39,759**	**1.04**	**9,876**	**0.26**	**50**
		NB	AM	10	15,487	0.73	**21,837**	**1.03**	**6,350**	**0.30**	**53**	13	20,026	0.74	**26,577**	**0.98**	**6,551**	**0.24**	**51**
			PM	1	336	0.61	**522**	**0.95**	**186**	**0.34**	**13**	2	2,427	0.56	**4,381**	**1.01**	**1,954**	**0.45**	**54**
14	North of Fremont & El Camino Real	SB	AM	1	3,006	0.77	**3,879**	**0.99**	**873**	**0.22**	**97**	2	3,474	0.78	**4,660**	**1.05**	**1,186**	**0.27**	**55**
			PM	18	24,956	0.34	**35,846**	**1.08**	**10,890**	**0.74**	**101**	15	21,321	0.80	**28,504**	**1.06**	**7,183**	**0.27**	**44**
		NB	AM	7	11,226	0.77	**14,624**	**1.00**	**3,397**	**0.23**	**52**	7	12,512	0.89	**14,480**	**1.03**	**1,968**	**0.14**	**50**
			PM	1	0	0.00	0	0.00	0	0.00	0	3	4,365	0.87	**5,636**	**1.13**	**1,271**	**0.25**	**41**

TABLE A1
SCREENLINE ANALYSIS FOR CONGESTED LINKS[1]

Screenline			Peak Hour	Current General Plan Analysis								Proposed General Plan Analysis							
ID No.	Name	Dir.		Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]	Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]
15	South of Fremont & El Camino Real	SB	AM	1	683	0.38	**1,712**	**0.95**	**1,029**	**0.57**	**45**	1	683	0.38	**1,702**	**0.95**	**1,019**	**0.57**	**45**
			PM	21	25,120	0.37	**37,646**	**1.06**	**12,526**	**0.69**	**80**	17	23,991	0.78	**32,129**	**1.00**	**8,138**	**0.23**	**45**
		NB	AM	10	10,604	0.67	**16,604**	**0.98**	**6,000**	**0.31**	**39**	4	8,438	0.78	**11,248**	**0.94**	**2,810**	**0.16**	**67**
			PM	0	0	0.00	0	0.00	0	0.00	0	1	2,465	0.63	**3,581**	**0.92**	**1,116**	**0.29**	**97**
16	East of SR-17, West of Bascom	EB	AM	3	1,845	0.64	**2,733**	**0.94**	**888**	**0.31**	**24**	5	8,264	0.63	**12,532**	**0.95**	**4,268**	**0.32**	**65**
			PM	16	24,832	0.35	**35,403**	**1.15**	**10,570**	**0.80**	**112**	14	24,105	0.85	**30,422**	**1.07**	**6,318**	**0.22**	**50**
		WB	AM	5	11,634	0.92	**13,907**	**1.10**	**2,274**	**0.18**	**63**	9	19,166	0.95	**20,669**	**1.03**	**1,503**	**0.07**	**55**
			PM	4	9,426	0.32	**11,060**	**1.03**	**1,634**	**0.71**	**183**	10	17,143	0.81	**22,255**	**1.05**	**5,112**	**0.24**	**53**
17	South of SR-85	SB	AM	2	4,579	0.59	**10,100**	**1.30**	**5,521**	**0.71**	**96**	6	6,087	0.42	**17,632**	**1.21**	**11,545**	**0.79**	**60**
			PM	9	22,224	0.33	**29,285**	**1.12**	**7,061**	**0.79**	**187**	10	21,117	0.88	**27,174**	**1.08**	**6,058**	**0.20**	**59**
		NB	AM	2	6,584	0.85	**9,443**	**1.22**	**2,859**	**0.37**	**96**	5	12,866	0.87	**16,458**	**1.03**	**3,592**	**0.16**	**74**
			PM	4	6,028	0.26	**13,153**	**1.30**	**7,125**	**1.05**	**147**	9	15,014	0.64	**27,847**	**1.13**	**12,833**	**0.49**	**65**
18	South of US-101	SB	AM	6	14,377	0.76	**19,763**	**1.05**	**5,386**	**0.28**	**78**	3	9,567	0.95	**10,688**	**1.06**	**1,121**	**0.11**	**83**
			PM	16	34,774	0.34	**49,482**	**1.18**	**14,708**	**0.84**	**159**	18	36,389	0.85	**51,798**	**1.17**	**15,408**	**0.31**	**59**
		NB	AM	10	20,582	0.78	**29,496**	**1.05**	**8,914**	**0.27**	**66**	15	27,516	0.72	**40,082**	**1.00**	**12,566**	**0.28**	**64**
			PM	8	17,023	0.28	**23,587**	**1.04**	**6,564**	**0.76**	**188**	8	15,067	0.76	**22,241**	**1.03**	**7,174**	**0.27**	**61**
19	East of I-880 & 10th/11th	EB	AM	1	774	0.43	**877**	**0.97**	**103**	**0.54**	**45**	2	908	0.34	**1,741**	**0.97**	**833**	**0.63**	**33**
			PM	23	39,225	0.33	**56,155**	**1.19**	**16,930**	**0.86**	**128**	21	39,157	0.88	**50,608**	**1.11**	**11,451**	**0.23**	**53**
		WB	AM	13	23,705	0.94	**30,515**	**1.15**	**6,810**	**0.20**	**48**	15	36,165	0.97	**38,950**	**1.08**	**2,784**	**0.10**	**61**
			PM	3	2,071	0.41	**2,553**	**0.88**	**482**	**0.47**	**42**	8	12,896	0.76	**19,149**	**1.04**	**6,253**	**0.28**	**53**
20	East of US-101	EB	AM	2	3,501	0.67	**5,100**	**0.97**	**1,599**	**0.30**	**65**	5	9,377	0.60	**16,159**	**0.97**	**6,781**	**0.38**	**78**
			PM	13	28,338	0.29	**41,359**	**1.12**	**13,020**	**0.83**	**188**	13	28,338	0.83	**42,679**	**1.16**	**14,340**	**0.33**	**65**
		WB	AM	8	18,014	0.80	**26,975**	**1.07**	**8,962**	**0.27**	**70**	12	27,961	0.85	**38,756**	**1.08**	**10,796**	**0.24**	**68**
			PM	0	0	0.00	0	0.00	0	0.00	0	11	17,778	0.63	**31,702**	**1.02**	**13,924**	**0.39**	**64**

TABLE A1
SCREENLINE ANALYSIS FOR CONGESTED LINKS[1]

Screenline			Peak Hour	Current General Plan Analysis								Proposed General Plan Analysis							
ID No.	Name	Dir.		Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]	Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]
21	East of Monterey	EB	AM	4	6,411	0.61	**10,110**	**0.96**	**3,699**	**0.35**	**65**	4	6,449	0.61	**10,157**	**0.97**	**3,708**	**0.35**	**65**
			PM	9	11,697	0.22	**21,904**	**1.12**	**10,208**	**0.91**	**149**	7	12,817	0.70	**22,864**	**1.11**	**10,047**	**0.41**	**65**
		WB	AM	3	3,630	0.53	**6,643**	**0.97**	**3,012**	**0.44**	**57**	10	17,550	0.71	**27,750**	**1.03**	**10,200**	**0.32**	**61**
			PM	3	7,879	0.30	**8,832**	**1.00**	**953**	**0.70**	**221**	13	21,826	0.73	**30,675**	**1.06**	**8,849**	**0.33**	**57**
22	West of US-101	EB	AM	3	6,636	0.67	**9,541**	**0.96**	**2,904**	**0.29**	**82**	5	11,582	0.63	**17,499**	**0.95**	**5,917**	**0.32**	**92**
			PM	5	10,451	0.24	**15,277**	**1.13**	**4,827**	**0.89**	**217**	6	11,743	0.76	**17,504**	**1.14**	**5,761**	**0.38**	**63**
		WB	AM	0	0	0.00	0	0.00	0	0.00	0	6	12,776	0.75	**16,986**	**1.00**	**4,209**	**0.25**	**70**
			PM	2	2,832	0.33	**3,953**	**1.04**	**1,122**	**0.71**	**108**	9	16,606	0.65	**25,614**	**0.99**	**9,008**	**0.33**	**70**
23	North of I-280 & I-680	SB	AM	3	4,441	0.91	**4,048**	**1.07**	-392	0.16	40	3	3,611	0.95	**3,894**	**1.02**	**283**	**0.07**	**31**
			PM	25	47,220	0.36	**63,087**	**1.07**	**15,867**	**0.72**	**132**	26	48,305	0.85	**63,899**	**1.06**	**15,594**	**0.21**	**54**
		NB	AM	15	25,464	0.82	**32,062**	**1.03**	**6,598**	**0.21**	**51**	17	35,173	0.90	**42,272**	**0.98**	**7,099**	**0.08**	**57**
			PM	4	1,536	0.93	**2,086**	**0.95**	**550**	**0.02**	**10**	8	8,305	0.64	**14,033**	**0.99**	**5,728**	**0.36**	**40**
26	North of Hamilton, South of Minnesota/Alma	SB	AM	2	5,484	0.83	**6,394**	**0.97**	**910**	**0.14**	**82**	3	8,727	0.66	**12,975**	**0.98**	**4,248**	**0.32**	**110**
			PM	23	50,623	0.38	**62,485**	**1.13**	**11,863**	**0.75**	**145**	23	50,623	0.89	**59,940**	**1.09**	**9,317**	**0.20**	**61**
		NB	AM	8	20,363	0.94	**24,104**	**1.11**	**3,740**	**0.17**	**67**	14	34,222	0.90	**38,268**	**1.03**	**4,046**	**0.13**	**67**
			PM	1	3,611	0.48	**4,148**	**1.09**	**537**	**0.62**	**190**	7	12,653	0.62	**20,016**	**1.03**	**7,363**	**0.41**	**72**
30	North of SR-237	SB	AM	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0
			PM	3	264	0.12	**3,407**	**1.03**	**3,144**	**0.91**	**18**	3	264	0.24	**7,158**	**2.17**	**6,895**	**1.93**	**9**
		NB	AM	1	0	0.00	**1,027**	**0.93**	**1,027**	**0.93**	**0**	3	199	0.18	**6,189**	**1.88**	**5,990**	**1.69**	**9**
			PM	0	0	0.00	0	0.00	0	0.00	0	2	310	0.28	**2,425**	**1.10**	**2,115**	**0.82**	**13**
31	Guadalupe River	EB	AM	8	22,851	0.85	**28,971**	**1.01**	**6,119**	**0.16**	**83**	14	32,996	0.74	**49,303**	**1.06**	**16,307**	**0.32**	**80**
			PM	26	49,012	0.34	**73,370**	**1.17**	**24,358**	**0.84**	**140**	20	46,091	0.86	**63,204**	**1.14**	**17,113**	**0.28**	**66**
		WB	AM	3	5,478	0.89	**6,011**	**0.98**	**533**	**0.09**	**51**	16	38,258	0.83	**46,841**	**1.02**	**8,583**	**0.19**	**72**
			PM	5	8,396	0.32	**11,346**	**0.97**	**2,950**	**0.66**	**131**	24	44,031	0.71	**68,310**	**1.11**	**24,279**	**0.39**	**64**

TABLE A1
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Screenline			Peak Hour	Current General Plan Analysis								Proposed General Plan Analysis							
ID No.	Name	Dir.		Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]	Number of Links	Base Vol.[2]	Base V/C[3]	Vol.[4]	V/C[5]	Δ Vol.[6]	Δ V/C[7]	Vol. TH[8]
32	Coyote Creek	S/E	AM	5	12,835	0.69	**19,286**	**1.04**	**6,451**	**0.35**	**92**	7	17,010	0.65	**30,108**	**1.07**	**13,098**	**0.42**	**93**
			PM	26	56,785	0.36	**83,816**	**1.27**	**27,031**	**0.92**	**153**	28	57,556	0.87	**84,254**	**1.23**	**26,698**	**0.35**	**58**
		N/W	AM	8	21,371	0.88	**27,361**	**1.13**	**5,990**	**0.25**	**75**	21	51,254	0.88	**63,979**	**1.09**	**12,725**	**0.21**	**69**
			PM	9	18,671	0.25	**27,826**	**1.03**	**9,155**	**0.78**	**207**	15	30,108	0.70	**48,953**	**1.13**	**18,845**	**0.43**	**71**
33	South of Bernal	SB	AM	5	4,923	0.37	**16,316**	**1.21**	**11,393**	**0.85**	**67**	5	4,923	0.37	**16,067**	**1.19**	**11,144**	**0.83**	**67**
			PM	5	8,905	0.27	**16,640**	**1.24**	**7,735**	**0.97**	**163**	2	6,867	0.89	**9,822**	**1.27**	**2,955**	**0.38**	**96**
		NB	AM	3	7,182	0.74	**11,169**	**1.16**	**3,986**	**0.41**	**80**	1	5,597	0.96	**6,433**	**1.10**	**836**	**0.14**	**146**
			PM	5	6,487	0.20	**17,501**	**1.30**	**11,014**	**1.10**	**163**	5	6,487	0.48	**17,295**	**1.29**	**10,808**	**0.80**	**67**
34	North of SR-85, East of SR-87	S/E	AM	1	514	0.93	**571**	**1.04**	**57**	**0.10**	**13**	3	2,367	0.52	**4,879**	**1.07**	**2,512**	**0.55**	**37**
			PM	5	8,340	0.31	**10,338**	**0.96**	**1,998**	**0.65**	**136**	4	7,153	0.88	**8,599**	**0.96**	**1,446**	**0.07**	**50**
		N/W	AM	0	0	0.00	0	0.00	0	0.00	0	3	5,191	0.90	**6,324**	**0.94**	**1,133**	**0.05**	**48**
			PM	1	1	0.00	**504**	**0.92**	**503**	**0.91**	**13**	5	4,846	0.54	**10,501**	**1.06**	**5,655**	**0.52**	**45**
Number of Directional Screenline Impacts																			
-			AM	47								52							
-			PM	47								54							

Notes:

1. Congested links are defines as those links with a volume to capacity (V/C) ratio of 0.9 or higher.
2. Existing roadway volume on congested links. Note that the Base volume shown in the table may be different between the current General Plan and proposed General Plan scenarios because the number of congested links may differ between those two scenarios.
3. Existing roadway volume-to-capacity ratio on congested links
4. Future roadway volume on congested links
5. Future roadway volume-to-capacity ratio on congested links
6. Change in volume between the future and existing years (e.g. Current General Plan Volume minus Existing Volume) on congested links
7. Change in volume-to-capacity ratios between the future and existing years (e.g. Current General Plan V/C minus Existing V/C) on congested links
8. Volume threshold of significance (an addition of 2.5% of the average congested link volume). The V/C threshold of significance is always a 0.005 change in V/C.

Bold black text indicates a segment that exceeds the threshold of a V/C increase of 0.005 and a volume increase shown in the Threshold column.

The model does not fully reflect all General Plan policies and programs that would affect the model outputs.

Source: Fehr & Peers, 2010.

APPENDIX B
LAND USE BASED VMT

Existing VMT by City Land Use

EMFAC Speed Bin Name	VMT Speed Bins Actual	Average Daily		AM Peak 4 hour		PM Peak 4 hour		Off Peak 16 hour	
		VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	334,702	2%	15,664	0%	302,532	6%	16,506	0%
10	7.51 - 12.50	277,739	1%	16,163	0%	246,529	5%	15,046	0%
15	12.51 - 17.50	586,753	3%	72,943	2%	403,613	8%	110,196	1%
20	17.51 - 22.50	1,261,080	6%	185,641	5%	803,329	15%	272,110	2%
25	22.51 - 27.50	4,154,662	21%	777,729	23%	1,413,117	26%	1,963,817	18%
30	27.51 - 32.50	2,537,344	13%	575,810	17%	794,938	15%	1,166,597	11%
35	32.51 - 37.50	1,792,573	9%	408,986	12%	453,688	8%	929,899	8%
40	37.51 - 42.50	1,176,448	6%	267,643	8%	281,245	5%	627,560	6%
45	42.51 - 47.60	1,611,259	8%	307,376	9%	244,946	5%	1,058,937	10%
50	47.61 - 52.50	2,003,942	10%	311,472	9%	182,619	3%	1,509,850	14%
55	52.51 - 57.50	4,070,476	21%	453,348	13%	248,794	5%	3,368,334	31%
60	57.51 - 62.50	0	0%	0	0%	0	0%	0	0%
65	62.51 - 67.50	0	0%	0	0%	0	0%	0	0%
70	67.51 - 72.50	0	0%	0	0%	0	0%	0	0%
75	72.51 - 77.50	0	0%	0	0%	0	0%	0	0%
80	77.51 - 82.50	0	0%	0	0%	0	0%	0	0%
85	82.51 - 87.50	0	0%	0	0%	0	0%	0	0%
90	87.51 - 92.50	0	0%	0	0%	0	0%	0	0%
	Total	19,806,977	1	3,392,774	1	5,375,351	1	11,038,852	1

Source: Fehr & Peers, 2010

Current General Plan VMT by City Land Use

EMFAC Speed Bin Name	VMT Speed Bins Actual	Average Daily		AM Peak 4 hour		PM Peak 4 hour		Off Peak 16 hour	
		VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	4,899,988	16%	362,651	7%	4,443,151	49%	94,186	1%
10	7.51 - 12.50	1,531,669	5%	329,385	6%	1,048,485	12%	153,799	1%
15	12.51 - 17.50	1,633,122	5%	472,848	9%	779,352	9%	380,922	2%
20	17.51 - 22.50	2,527,631	8%	716,011	13%	923,885	10%	887,734	5%
25	22.51 - 27.50	5,588,550	18%	1,276,269	24%	794,284	9%	3,517,998	21%
30	27.51 - 32.50	3,721,278	12%	752,386	14%	408,515	4%	2,560,376	16%
35	32.51 - 37.50	2,805,152	9%	448,938	8%	230,641	3%	2,125,573	13%
40	37.51 - 42.50	1,662,917	5%	244,574	5%	143,093	2%	1,275,250	8%
45	42.51 - 47.60	1,409,500	5%	267,573	5%	118,748	1%	1,023,179	6%
50	47.61 - 52.50	1,347,183	4%	266,722	5%	95,681	1%	984,780	6%
55	52.51 - 57.50	3,789,910	12%	210,277	4%	109,538	1%	3,470,096	21%
60	57.51 - 62.50	0	0%	0	0%	0	0%	0	0%
65	62.51 - 67.50	0	0%	0	0%	0	0%	0	0%
70	67.51 - 72.50	0	0%	0	0%	0	0%	0	0%
75	72.51 - 77.50	0	0%	0	0%	0	0%	0	0%
80	77.51 - 82.50	0	0%	0	0%	0	0%	0	0%
85	82.51 - 87.50	0	0%	0	0%	0	0%	0	0%
90	87.51 - 92.50	0	0%	0	0%	0	0%	0	0%
	Total	30,916,900	1	5,347,635	1	9,095,372	1	16,473,894	1

Source: Fehr & Peers, 2010

Proposed General Plan Update VMT by City Land Use

EMFAC Speed Bin Name	VMT Speed Bins Actual	Average Daily		AM Peak 4 hour		PM Peak 4 hour		Off Peak 16 hour	
		VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	5,851,590	17%	493,001	8%	5,196,862	51%	161,726	1%
10	7.51 - 12.50	1,818,245	5%	352,307	6%	1,234,105	12%	231,833	1%
15	12.51 - 17.50	1,958,325	6%	408,297	7%	966,276	10%	583,752	3%
20	17.51 - 22.50	2,674,558	8%	744,243	13%	854,471	8%	1,075,845	6%
25	22.51 - 27.50	6,434,143	19%	1,511,053	26%	765,504	8%	4,157,586	22%
30	27.51 - 32.50	4,313,655	12%	807,174	14%	446,349	4%	3,060,132	16%
35	32.51 - 37.50	2,976,810	9%	508,074	9%	235,118	2%	2,233,619	12%
40	37.51 - 42.50	1,742,101	5%	311,516	5%	113,140	1%	1,317,445	7%
45	42.51 - 47.60	1,419,442	4%	308,091	5%	106,151	1%	1,005,200	5%
50	47.61 - 52.50	1,410,609	4%	235,897	4%	87,762	1%	1,086,951	6%
55	52.51 - 57.50	4,029,425	12%	186,424	3%	99,797	1%	3,743,204	20%
60	57.51 - 62.50	0	0%	0	0%	0	0%	0	0%
65	62.51 - 67.50	0	0%	0	0%	0	0%	0	0%
70	67.51 - 72.50	0	0%	0	0%	0	0%	0	0%
75	72.51 - 77.50	0	0%	0	0%	0	0%	0	0%
80	77.51 - 82.50	0	0%	0	0%	0	0%	0	0%
85	82.51 - 87.50	0	0%	0	0%	0	0%	0	0%
90	87.51 - 92.50	0	0%	0	0%	0	0%	0	0%
	Total	34,628,903	1	5,866,077	1	10,105,534	1	18,657,292	1

Source: Fehr & Peers, 2010

Total VMT Trips without School Trips

	Proposed General Plan Update				Current General Plan				Existing General Plan			
Person Trip	**To SJ**	**Fr SJ**	**Total**	**% of All**	**To SJ**	**Fr SJ**	**Total**	**% of All**	**To SJ**	**Fr SJ**	**Total**	**% of All**
San Francisco	16,045	6,625	22,670	0.84%	10,454	6,939	17,393	0.72%	5,750	8,569	14,320	0.87%
San Mateo	54,249	33,794	88,043	3.27%	35,580	36,299	71,880	2.96%	21,091	34,854	55,945	3.41%
Santa Clara (exclude SJ)	430,767	453,291	884,058	32.81%	333,918	592,169	926,087	38.13%	218,207	363,861	582,069	35.44%
Alameda	149,726	48,509	198,235	7.36%	100,504	54,498	155,002	6.38%	54,722	52,328	107,050	6.52%
Contra Costa	30,980	6,226	37,206	1.38%	17,633	4,698	22,330	0.92%	8,847	8,073	16,920	1.03%
Solano	4,960	1,640	6,600	0.24%	3,199	940	4,139	0.17%	813	2,122	2,934	0.18%
Napa	809	514	1,323	0.05%	454	311	765	0.03%	122	481	604	0.04%
Sonoma	1,369	2,055	3,424	0.13%	1,380	643	2,023	0.08%	311	1,691	2,002	0.12%
Marin	1,113	974	2,087	0.08%	766	627	1,393	0.06%	310	1,380	1,690	0.10%
Santa Cruz	9,565	21,927	31,492	1.17%	11,698	23,773	35,471	1.46%	13,587	6,883	20,469	1.25%
Monterey	5,213	4,137	9,349	0.35%	8,659	4,432	13,090	0.54%	2,841	1,732	4,573	0.28%
San Benito	5,507	2,104	7,612	0.28%	5,831	2,303	8,134	0.33%	3,618	819	4,437	0.27%
San Joaquin	14,871	242	15,112	0.56%	14,015	349	14,363	0.59%	7,350	118	7,469	0.45%
San Jose	1,387,467			51.49%	1,156,979			47.63%	821,811			50.04%
All Trip	2,112,642	1,969,504	2,694,678		1,701,069	1,884,957	2,429,048		1,159,379	1,304,723	1,642,291	
All Other County	294,407	128,745	423,153		210,173	135,810	345,983		119,361	119,051	238,411	
% of All Other County	13.94%	6.54%	15.70%		12.36%	7.20%	14.24%		10.30%	9.12%	14.52%	

	Proposed General Plan Update				Current General Plan				Existing General Plan			
Vehicle Trip	**To SJ**	**Fr SJ**	**Total**	**% of All**	**To SJ**	**Fr SJ**	**Total**	**% of All**	**To SJ**	**Fr SJ**	**Total**	**% of All**
San Francisco	13,257	5,426	18,682	0.69%	8,781	5,571	14,352	0.59%	5,136	6,775	11,911	0.73%
San Mateo	47,739	29,619	77,358	2.87%	31,447	31,546	62,993	2.59%	19,206	30,627	49,833	3.03%
Santa Clara (exclude SJ)	382,670	401,670	784,340	29.11%	293,533	529,697	823,230	33.89%	196,934	325,018	521,952	31.78%
Alameda	122,616	42,916	165,532	6.14%	84,627	48,258	132,885	5.47%	49,181	46,697	95,877	5.84%
Contra Costa	23,518	5,370	28,888	1.07%	13,665	4,124	17,789	0.73%	7,764	6,999	14,763	0.90%
Solano	2,980	1,301	4,280	0.16%	1,918	781	2,700	0.11%	693	1,707	2,400	0.15%
Napa	451	415	866	0.03%	254	262	515	0.02%	94	381	475	0.03%
Sonoma	842	1,238	2,080	0.08%	805	411	1,217	0.05%	218	1,198	1,416	0.09%
Marin	918	775	1,693	0.06%	615	518	1,133	0.05%	277	1,118	1,395	0.08%
Santa Cruz	8,342	19,461	27,803	1.03%	10,202	21,168	31,370	1.29%	11,849	6,113	17,963	1.09%
Monterey	4,546	3,681	8,227	0.31%	7,552	3,956	11,508	0.47%	2,477	1,539	4,017	0.24%
San Benito	4,803	1,869	6,672	0.25%	5,085	2,051	7,136	0.29%	3,155	728	3,883	0.24%
San Joaquin	12,969	216	13,185	0.49%	12,223	308	12,531	0.52%	6,410	106	6,516	0.40%
San Jose	1,164,105			43.20%	965,899			39.76%	700,142			42.63%
All Trip	1,789,756	1,678,060	2,303,711		1,436,607	1,614,549	2,085,258		1,003,537	1,129,148	1,432,542	
All Other County	242,981	112,285	355,266		177,176	118,953	296,129		106,460	103,988	210,449	
% of All Other County	13.58%	6.69%	15.42%		12.33%	7.37%	14.20%		10.61%	9.21%	14.69%	

Source: City of San Jose, 2010