CIRCULATION AND SCENIC HIGHWAY ELEMENT UPDATE
CITY OF SARATOGA, CALIFORNIA

BACKGROUND REPORT AND GOALS, POLICIES, AND IMPLEMENTATION MEASURES

PREPARED FOR:
CITY OF SARATOGA

November 17, 2010

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FEHR & PEERS.

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VISION STATEMENT

It is the intent of the City that the emphasis on maintaining the character of Saratoga as expressed in the General Plan and Specific Plans be affirmed, preserved and furthered by the goals, policies and implementation measures presented in the Year 2010 Circulation and Scenic Highway Element Update. Additionally, it is the intent of the City that the mandate expressed by the citizens of Saratoga to control density, traffic, and noise be affirmed, preserved and furthered by the goals, policies and implementation measures presented in this document. The City also pledges to : 1) improve the transportation system by balancing the needs of bicyclists, pedestrians, and transit users with considerations for safe vehicular travel, 2) promote a healthy and active community by providing transportation opportunities for bicyclist and pedestrians, and 3) be a responsible partner in developing regional transportation solutions. Where any inconsistency or conflict appears in interpreting this document, the strong value that Saratogans place on the character of the City shall weigh heavily in the resolution of such conflict.

TABLE OF CONTENTS

TECHNICAL APPENDICES

LIST OF TABLES

Table **Page**

LIST OF FIGURES

Figure **Page**

I. INTRODUCTION

What is a Circulation and Scenic Highway Element?

A Circulation and Scenic Highway Element is one of seven required elements of a City or County's General Plan. California Government Code Section 65302 (b) specifies that the Circulation Element of a General Plan shall identify the proposed location and extent of major thoroughfares, terminals, and services designed to transport people and goods. The City of Saratoga's transportation system is comprised of roadways, bikeways, sidewalks and trails, transit facilities and services, and rail lines.

The Circulation and Scenic Highway Element addresses all travel modes and includes the goals, policies, and implementation programs that guide the development and maintenance of the transportation system. Scenic highway designations and corridor preservation issues are also addressed as part of this element.

Why Update the Circulation Element?

The Circulation Element was last updated in 2000. Over the last ten years, the City of Saratoga has not seen significant changes in its transportation system, and traffic volumes have decreased by approximately ten (10) percent. Because the vast majority of land use within Saratoga is essentially built-out, future travel demand will be generated by redevelopment, in-fill projects, and additional through traffic. Thus, the primary goal of the Circulation Element is to manage and improve the efficiency of the existing transportation system.

Background

The transportation system in Saratoga was originally developed before the City was incorporated and was based on planning principles for rural communities. These principles included construction of numerous local streets without finished curbs, gutters or sidewalks, extensive use of natural landscaping, and development of an arterial street system that radiated from the Village area along Big Basin Way.

Due to the hilly terrain and natural setting, some City streets include narrow travel lanes that are less than the 12-foot standard used in many urban areas. The City maintains an on-going effort to eliminate sight distance limitations caused by trees and shrubs or by structures built before recent setback standards were implemented

As the City has developed and overall travel demand has increased, the focus of Citywide circulation traffic volumes has shifted from congestion in the Village area to neighborhood traffic management and school circulation. Traffic volumes on City streets have decreased approximately ten (10) percent since 2000. This decrease is not unexpected due to the economic boom that occurred in the late 1990s and the current recession. Although traffic volumes have decreased, opportunities to expand alternative travel modes have been limited because of: 1) the original planning principles to minimize the number of sidewalks, 2) insufficient roadway width or right-of-way to accommodate both on-street parking and separate bicycle facilities, and 3) the low-density development pattern that makes transit service less efficient.

The City has consistently made a conscious effort to retain the rural character of the

community while providing adequate capacity and safety for vehicles and other modes of travel. Local residential streets are the framework around which the neighborhoods in Saratoga are built. To a great extent, the pattern and design of streets help shape neighborhood image and identity, and can influence whether or not residents of an area feel safe, the degree of communication neighbors have with each other, the degree to which residents use alternative modes for personal travel, and the general feeling of well-being and comfort related to their immediate environment.

Regulatory Agencies

The City of Saratoga has jurisdiction over all City streets and City-operated traffic signals. The SR 85 freeway, its ramps, and SR 9 (Saratoga-Los Gatos Road and Big Basin Way) are under the jurisdiction of the State of California Department of Transportation (Caltrans). A short section of Lawrence Expressway is under the jurisdiction of Santa Clara County.

The Santa Clara Valley Transportation Authority (VTA) is an independent special district responsible for congestion management, specific highway improvement projects, countywide transportation planning, and bus and light rail operations in Santa Clara County. The VTA is the Congestion Management Agency (CMA) for jurisdictions within the County and sets the State and Federal funding priorities for improvements affecting Congestion Management Program (CMP) facilities, as well as non-automobile facilities. CMP facilities in Saratoga include SR 85, SR 9 (Saratoga-Los Gatos Road and Big Basin Way), Saratoga-Sunnyvale Road, and Saratoga Avenue (east of SR 85). In Saratoga, the VTA provides fixed-route bus and paratransit service.

The regional transportation planning agency for the San Francisco Bay Area is the Metropolitan Transportation Commission (MTC), which is the clearinghouse for both State and Federal funds for transportation improvements. Each county's CMA, including the VTA, forwards their Capital Improvement Project (CIP) list to MTC for review. MTC prepares the regional priority list based on input from all nine Bay Area counties and submits it to the California Transportation Commission (CTC) and/or the Federal Highway Administration (FHWA) for funding.

Community Input

Participation from Saratoga residents and public officials was an integral part of the Circulation Element update process. Community input ensures the Circulation Element reflects the issues and opportunities identified by the community. The main concerns for this Circulation Element update were focused on updating bicycle paths, lanes, and routes on the Bicycle Facilities Map, verifying consistency between the trails map within the Circulation Element and the trails map within the Open Space/Conservation Element, and accurately describing the existing transportation system, goals, policies, and implementation measures that form the vision of the City's circulation plan.

Numerous groups met to discuss circulation issues with regards to the Circulation Element update. The Pedestrian, Equestrian, and Bicycle Trails Advisory Committee (PEBTAC) met numerous times in 2007, 2008, and 2009 to discuss changes to the Bicycle Facilities Map. The City Council

and Traffic Safety Commission (TSC) also met in 2009 to discuss the Bicycle Facilities Map and changes to the element.

PEBTAC also discussed changes to the trails maps in May and June 2010. After thorough review of the maps, recorded documentation, and site visits, corrections to both trails maps were made and brought into conformity. These meetings were open to the public, noticed on standard meeting agendas, and included on the City's website.

A joint public meeting was also held by the TSC and PEBTAC in May 2010. The meeting was held to solicit additional public input on the background report and draft goals, policies, and implementation measures for the Circulation Element, as well as discuss any issues regarding the Bicycle Facilities Map and Trail Map. These meetings were advertised through the Saratoga News, noticed on the City's website, and posted as a TSC agenda item.

The Circulation Element is tentatively scheduled to be reviewed by the Planning Commission on September 8, 2010 before recommending approval of the Circulation Element to the City Council. City Council reviewed the Circulation Element in October 2010 and approved it in November 2010.

II. OVERVIEW OF EXISTING TRANSPORTATION SYSTEM

The current use of each travel mode is presented followed by descriptions of each component of the existing transportation system: roadways, bicycle and pedestrian facilities, transit services and facilities, and rail lines. Figure 1 shows a map of the major roadways within Saratoga.

Travel Mode Data

Saratoga residents use a variety of modes to travel. Table 1 shows the proportional share by travel mode for Saratoga residents commuting to work based on the most recent Census data.

TABLE 1
Travel to Work Mode Share - Saratoga Residents

Transportation Mode	Share (%)
Drive Alone	85.4
Carpool/Vanpool	5.0
Bus	0.9
Bicycle	0.2
Walk	0.9
Other[1]	7.6

Notes:
[1] Includes motorcycle riders, worked at home and other modes.
Source: U.S. Census 2000, Summary File 3.

The vast majority of work trips (more than 85 percent) are made by single-occupant vehicles. Carpools/vanpools or ridesharing comprises the second highest share at five (5.0) percent. Transit, bicycle and pedestrian trips comprise approximately two (2.0) percent of the commute trip total. Interestingly, the drive alone rate decreased by approximately 3.5 percentage points from Year 1990 to 2000.

Based on two previous mode share studies and anecdotal evidence approximately 90 percent of local elementary students arrive and depart by automobile. This trend is due to an open enrollment system (where a student may attend any school in the district) and the lack of dedicated school bus service.

Existing Roadway System

Regional roadway access to Saratoga is provided by three major freeways: State Route (SR) 85, Interstate 280 (I-280), and SR 17. Only SR 85 provides direct access to Saratoga via interchanges at Saratoga Avenue and South De Anza Boulevard (in Cupertino). Access to SR 17 is provided by Saratoga-Los Gatos Road, which is designated as SR 9, and via SR 85. Lawrence Expressway also serves regional traffic and links Saratoga to Santa Clara and Sunnyvale.

As shown on Figure 1, the major roadways carry traffic between various areas of Saratoga as well as to other nearby cities. Local roadway access within Saratoga is provided by a network of streets that was specifically designed to discourage cut-through traffic in neighborhood areas. Unfortunately, increased congestion on some of the major roadways, especially near the SR 85/Saratoga Avenue interchange, has led to increased diversion through neighborhoods.

Brief descriptions of the key roadways within the City are presented below.

State Route 85 (SR 85) is six-lane freeway linking U.S. Highway 101 (US 101) in Mountain View to US 101 in south San Jose. The median lane in both directions is

designated for use by High Occupancy Vehicles (HOVs) and motorcycles during peak periods. HOVs include carpools, vanpools and buses. Full-access via ramps is provided at Saratoga Avenue between Fruitvale and Cox Avenues.

Saratoga-Los Gatos Road (SR 9) is a two- to four-lane roadway extending between Big Basin Way in Saratoga and SR 17 in Los Gatos. A center two-way left-turn lane is provided on selected segments of this road within Saratoga. Saratoga-Los Gatos Road is designated as SR 9 and is under the jurisdiction of the California Department of Transportation (Caltrans).

Saratoga Avenue is a two- to six-lane street linking Saratoga-Los Gatos Road (SR 9) with Scott Boulevard in the City of Santa Clara. In Saratoga, this street includes two lanes between SR 9 and Fruitvale Avenue, and four lanes north of this point to the City limits.

Saratoga-Sunnyvale Road is a four-lane, north-south road extending between Saratoga Avenue and Prospect Road. North of Prospect Road in the Cities of Cupertino and San Jose, this roadway is designated as South De Anza Boulevard and includes six travel lanes.

Prospect Road is a two- to four-lane east-west roadway extending between Stevens Creek County Park and Saratoga Avenue. Several north-south collector streets connect to Prospect Road through Cupertino including Blaney Avenue, Miller Avenue, and Johnson Avenue. The majority of Prospect Road forms the boundary between Saratoga and the Cities of San Jose and Cupertino. A short segment of this road includes five through lanes between Saratoga Avenue and Lawrence Expressway.

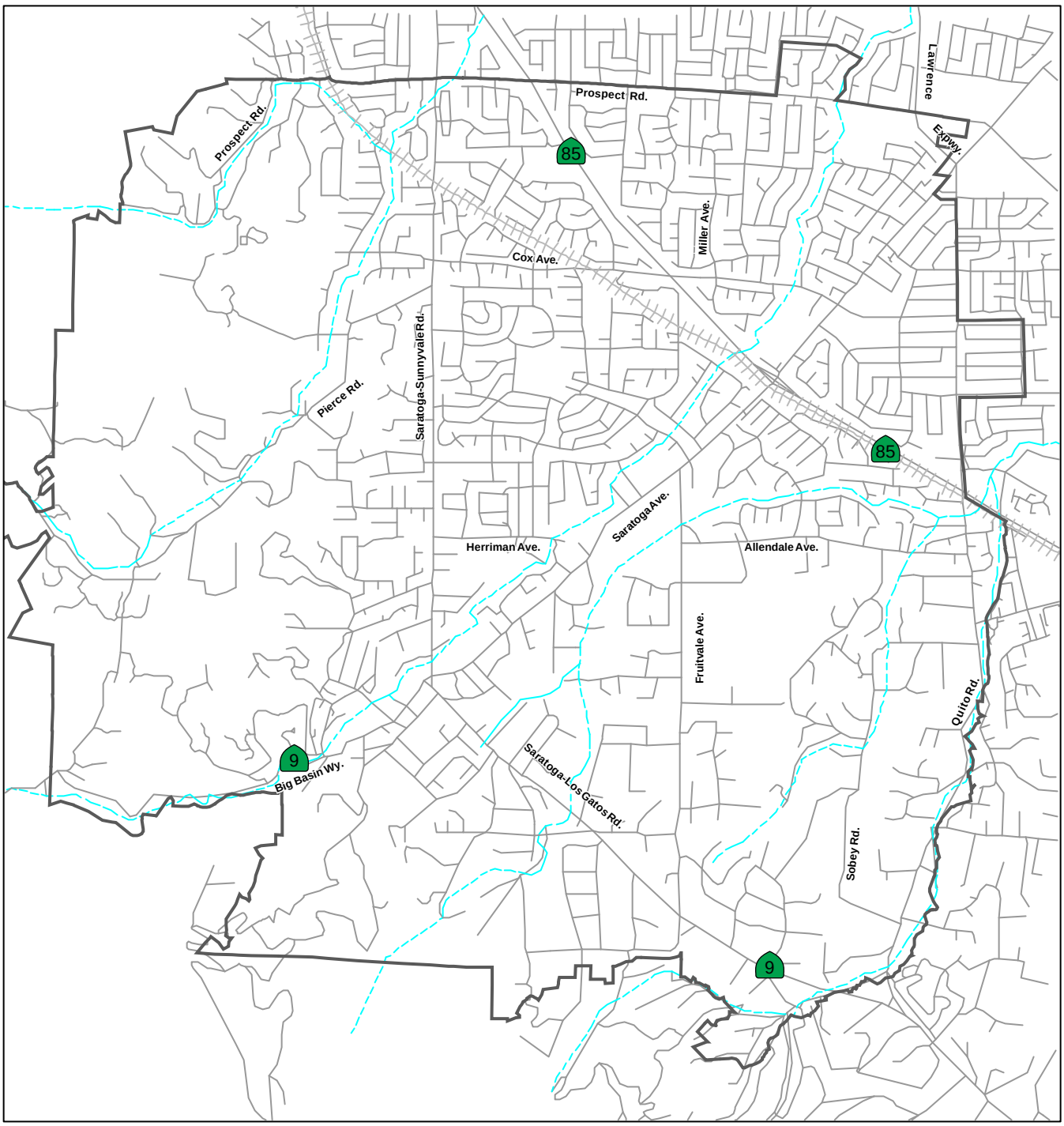
Fruitvale Avenue is a two- to four-lane street linking Saratoga Avenue to Saratoga-Los Gatos Road (SR 9). It is two lanes wide south of Burgundy Way. Fruitvale Avenue is the primary access to West Valley College and also serves Redwood Middle School, a Post Office, and Saratoga City Hall at Allendale Avenue.

Cox Avenue is an east-west street extending between Saratoga-Sunnyvale Road and Quito Road. The majority of this street includes two travel lanes, with a four lane segment between Saratoga Avenue and Paseo Presado. As part of the City's neighborhood traffic management efforts, the two-lane segment east of Paseo Presado includes a speed table to discourage speeding. Between Prospect Road and Saratoga-Los Gatos Road, Cox Avenue is the only east-west street providing a direct connection across Saratoga between Saratoga-Sunnyvale Road and Quito Road.

Allendale Avenue is a two-lane, east-west roadway linking Fruitvale Avenue and Quito Road. As noted above, this street provides access to the Saratoga Civic Center, Post Office, and Redwood Middle School west of Fruitvale Avenue. Secondary access to West Valley College is provided on Allendale Avenue.

Quito Road, with the Sunland exception forms the City's eastern boundary. Quito Road links Lawrence Expressway with four lanes to Cox Avenue, proceeding south to Saratoga-Los Gatos Road as two lanes.

Big Basin Way is a two-lane roadway between Saratoga-Los Gatos Road and Pierce Road. West of Pierce Road, this roadway is called Congress Springs Road and connects to Skyline Boulevard (SR 35). Big Basin Way is designated as SR 9.



Legend:

- Saratoga City Boundary
- Roads
- Waterways

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Figure 1 Revised May 2010	City Map	

Pierce Road is a two-lane roadway linking Congress Springs Road (SR 9) with Saratoga-Sunnyvale Road. This roadway traverses hilly terrain and provides access to numerous local and collector streets in the western hills. As part of the City's neighborhood traffic management efforts, this street includes two speeds humps just east of Saratoga-Sunnyvale Road.

Roadway Classifications

To better identify the character of a roadway, all streets and highways are classified depending upon the service they provide. For example, some facilities are designed to serve high traffic volumes across the City, while others are designed to serve low volumes and to distribute traffic within a limited area. Prior to the 2000 General Plan, roadways were classified based on the functional classification system typically used by the Federal Highway Administration (FHWA) and illustrated on California Road Systems (CRS) Maps. The functional classification system emphasizes vehicle travel and focuses on the street environment between the curbs. In the 2000 General Plan, City roadways were identified based on the following classifications: interstate freeway, other freeway or expressway, major arterial, minor arterial, and collector. All other streets are assumed to be local streets.

In determining the appropriate classification system for a given roadway, the City has and will continue to recognize that transportation corridors have multiple users (i.e., drivers, bicyclists, pedestrians, and transit users) and that adjacent land uses also influence the functionality and character of the street environment. A map of the City's adopted roadway classification system is shown on Figure 2.

The City does not have an officially adopted classification system. Although the current General Plan map identifies some arterial roadways and collector streets, no distinction is made between types of arterial roadways (principal/major vs. minor). For discussion purposes, roadways have been classified into seven categories: freeways, expressways, major and minor arterials, collectors, local streets, and hillside streets. Portions of Prospect Road and Quito Road that are located in adjacent jurisdictions may be designated differently by those agencies. General definitions of these classifications and example segments are presented below.

- *Freeways.* Freeways are limited-access, high-speed travelways included in the State and Federal Highway systems. Freeways are facilities designed solely for traffic movement, providing no access to abutting properties, and designed to separate all conflicting traffic movements through the use of grade-separated interchanges. The only freeway in the City is State Route (SR) 85.

- *Expressways.* Expressways are high-speed, limited-access streets designed to facilitate the movement of high traffic volumes. Expressways are designed to serve both regional through and local traffic and ideally connect other regional roadways and freeways. 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

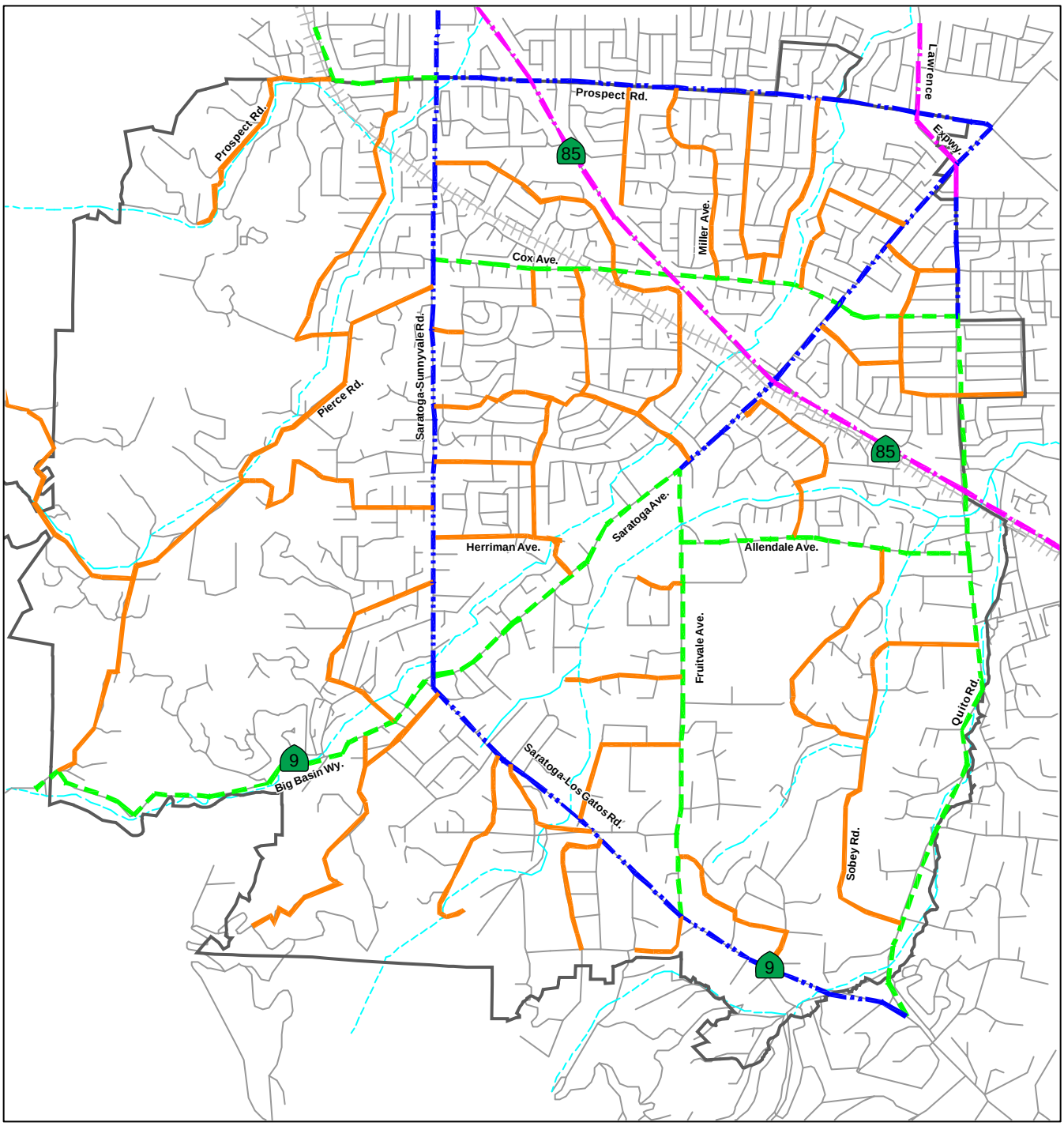
signals on each of these facilities. The only expressway facility within the city limits is a very short segment of Lawrence Expressway north of Saratoga Avenue.

- *Major and Minor Arterials.* Arterial roadways are major streets that primarily serve through traffic and provide access to abutting properties as a secondary function. Arterials are generally designed with two to six travel lanes and major intersections are signalized. This roadway type is divided into two categories: major and minor arterials. Major arterials are typically four- or more lane

roadways and serve both local and through traffic. Minor arterials are typically two- to four-lane streets and serve local and commute traffic. Examples of major arterials are Saratoga Avenue east of SR 85, Saratoga-Sunnyvale Road, Saratoga-Los Gatos Road, and Quito Road north of SR 85. Minor arterials include Saratoga Avenue west of SR 85, Fruitvale Avenue, Cox Avenue (Saratoga-Sunnyvale Road to Saratoga Avenue), and Quito Road south of SR 85.

- *Collectors.* Collectors are streets that provide land access and traffic circulation within residential, commercial and industrial areas. They connect local streets to arterials and are typically designed with two travel lanes that may accommodate on-street parking. Collector streets include Herriman Avenue, Pierce Road, and Miller Avenue.

- *Local Streets.* Local or residential streets provide direct access to abutting residential properties as their primary function. Local streets have no more than two travel lanes and may or may not accommodate on-street parking. In many areas of Saratoga, local streets do not include sidewalks.



Legend:

- Interstate Freeway (Not Applicable)
- Other Freeway or Expressway
- Major Arterial
- Minor Arterial
- Collector

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Figure 2 Revised May 2010	Current Roadway Classifications	

- *Hillside Streets*. These roads are local streets located in the foothills that have narrow travel lane widths and slower travel speeds. No on-street parking is typically permitted and no right of way is available for separate pedestrian or bicycle facilities. Examples include Bohlman Road and portions of Canyon View Drive.

- *Heritage Lanes*. Two roadways in Saratoga are designated as "heritage lanes." While not an official roadway classification for circulation purposes, this designation indicates corridors that are maintained to preserve the City's character. The two roadways with this classification are Saratoga Avenue between Fruitvale Avenue and Park Place, and Austin Way south of Saratoga-Los Gatos Road (SR 9).

Existing Traffic Volumes

Existing traffic volumes were established with traffic counts conducted in 2006 and 2010. Current daily traffic volumes for the City's major streets in the City are presented on Figure 3.

Daily traffic volumes are used to identify the required number of travel lanes on roadway segments. While intersections represent the constraint points of a roadway system, forecasting specific turning movement volumes 20 or more years in the future can be speculative. In addition, use of daily volumes better illustrates maximum use of a roadway as opposed to focusing only on a one- or two-hour peak period.

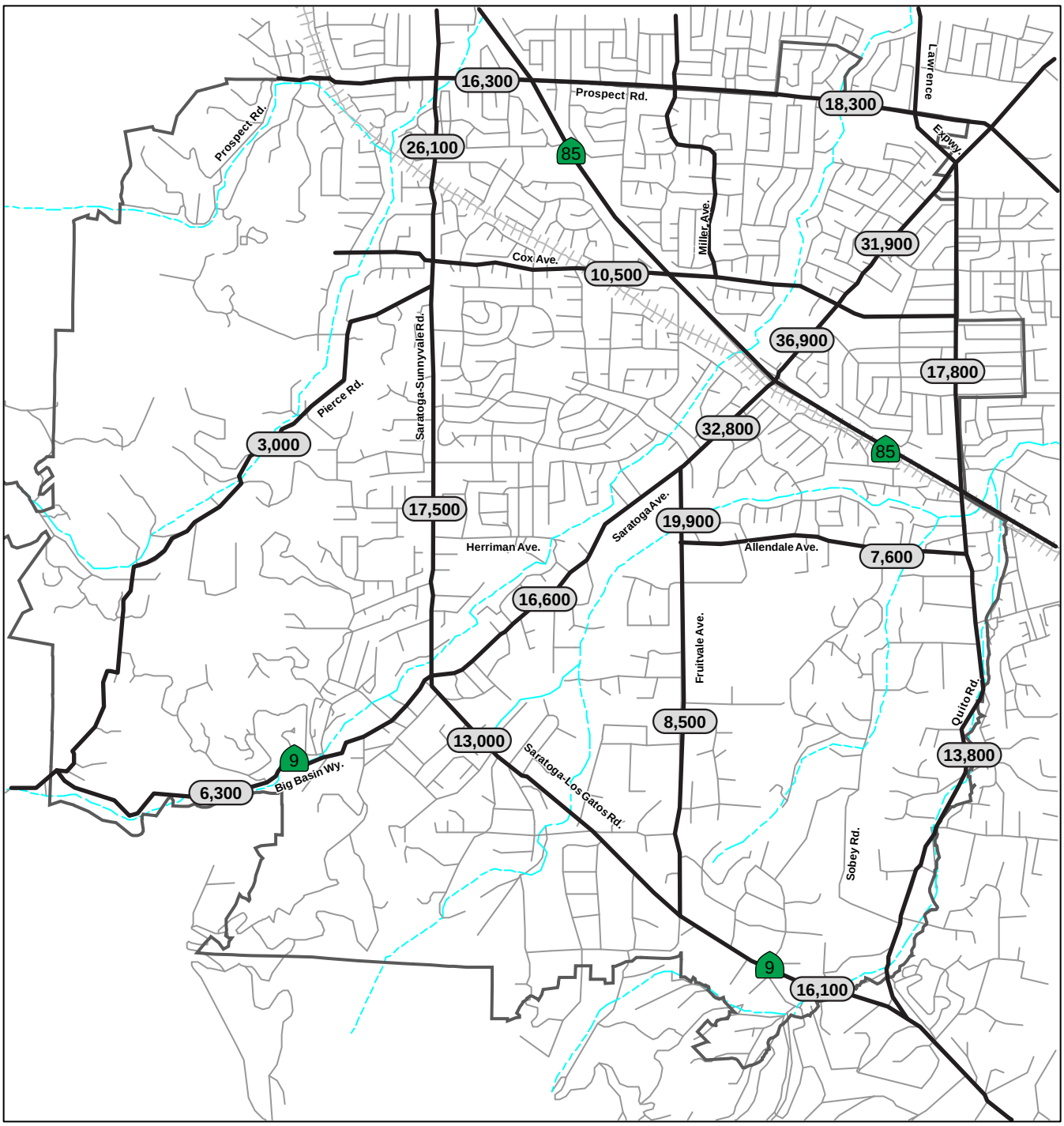
Roadway Segment Operations

The operations of roadways are described with the term *level of service.* Level of service (LOS) is a qualitative description of traffic operations ranging from LOS A (indicating free flow operations with little or no delay experienced by motorists), to LOS F (indicating congested and oversaturated conditions where traffic flows exceed design capacity and result in long queues and delays). LOS E represents conditions at capacity.

Roadway segments in the City of Saratoga were analyzed using comparison of the daily volume to threshold volumes based on roadway type as presented in the technical appendix. It is important to note that daily volume thresholds are used for planning purposes and traffic during peak periods may result in worse operations than illustrated by the daily LOS.

The City of Saratoga currently maintains LOS D as the minimal acceptable operation level for intersections that are under the City's jurisdiction. This same standard was applied to the roadway segment operations analysis.

Table 2 shows the existing operations of the key roadway segments identified on Figure 3.



Legend:

150 Existing Daily Volumes
Note: Traffic counts obtained in 2006 and 2010

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Figure 3 Revised May 2010	Existing Daily Volumes

TABLE 2

Existing Roadway Segment Levels of Service[1]

Roadway Segment	Existing Volume[1]	Roadway Type	Number of Lanes	LOS
Prospect Road (Saratoga-Sunnyvale Road to Miller Avenue)	16,300	Major Arterial	4	C
Prospect Road (Miller Avenue to Lawrence Expressway)	18,300	Major Arterial	4	C
Saratoga-Sunnyvale Road (Prospect Road to Cox Avenue)	26,100	Major Arterial	4	D
Saratoga-Sunnyvale Road (Cox Avenue to Saratoga Avenue)	17,500	Major Arterial	4	C
Pierce Road (Surrey Lane to Comer Dr.)	3,000	Collector	2	B
Cox Avenue (Saratoga-Sunnyvale Road to Saratoga Avenue)	10,500	Minor Arterial	2	D
Saratoga Avenue (Lawrence Expressway To Cox Avenue)	31,900	Major Arterial	4	D
Saratoga Avenue (Cox Avenue to SR 85)	36,900	Major Arterial	4	E
Saratoga Avenue (SR 85 to Fruitvale Avenue)	32,800	Major Arterial	4	D
Saratoga Avenue (Fruitvale Avenue to Saratoga-Sunnyvale Road)	16,600	Minor Arterial	2	D
Big Basin Way (Saratoga-Sunnyvale Road to Pierce Road)	6,300	Minor Arterial	2	C
Fruitvale Avenue (Saratoga Avenue to Allendale Avenue)	19,900	Minor Arterial	4	D
Fruitvale Avenue (Allendale Avenue to Saratoga-Los Gatos Road)	8,500	Minor Arterial	4	C
Allendale Avenue (Fruitvale Avenue to Quito Road)	7,600	Minor Arterial	2	C
Quito Road (Saratoga Avenue to Allendale Avenue)	17,800	Major Arterial	2	F
Quito Road (Allendale Avenue to Saratoga-Los Gatos Road)	13,800	Minor Arterial	2	D
Saratoga-Los Gatos Road (Saratoga Avenue to Fruitvale Avenue)	13,000	Major Arterial	4	D
Saratoga-Los Gatos Road (Fruitvale Avenue to Quito Road)	16,100	Major Arterial	4	C

Note: [1] Average Daily Traffic (ADT) volume based on traffic counts collected November 2006 and February 2010.
[2] Level of Service (LOS) based on roadway capacities defined in the technical appendix.
Source: Fehr & Peers, March 2010.

Overall, the City's daily roadway volumes have decreased by approximately 10 percent as compared to the volumes presented in the 2000 General Plan. The decrease in roadway volumes is not unexpected given the economic boom that occurred in the late 1990s and the current recession. Furthermore, the most recent VTA Monitoring and Conformance Report (2008) demonstrates that the CMP facilities currently operate at acceptable levels. Those facilities are located at (Saratoga-Los Gatos Road and Big Basin Way), Saratoga-Sunnyvale Road, and Saratoga Avenue (east of SR 85).

The results in Table 2 show that two of the eighteen study roadway segments are operating near capacity on a daily basis. The two areas of substantial congestion include:

- Saratoga Avenue between Cox Avenue and SR 85
- Quito Road between Allendale Avenue and Saratoga Avenue

As noted previously, congested daily operations can indicate that overall traffic demand meets or exceeds the capacity of a given segment. However, peak-hour intersection operations and potential intersection improvements should be evaluated prior to recommending widening of roadway segments. This will allow the City to maximize the use of existing infrastructure while balancing the needs of all roadway users.

Truck Traffic

Truck traffic is not a significant existing problem in the City of Saratoga. The major state highways leading into and traversing the City are not high volume truck routes. SR 9 west of the City is a two-lane road with numerous curves and steep grades and is not conducive to truck travel. Trucks over four and one-half (4.5) tons are not permitted on SR 85. In general, most large trucks travel on Saratoga streets only to make local deliveries, pick-ups, and support new construction. While some complaints occur during construction or remodel of a home or business, issues are localized and addressed through code or law enforcement.

Other Traffic Issues

Several issues regarding traffic circulation throughout the City have been identified at public meetings and through communications with City Community Development Department staff. These issues are listed below followed by a brief discussion of each.

Neighborhood Traffic Problems – Changes in traffic patterns within the City have caused some through traffic to divert to residential collector and local streets at selected locations. Citizens in several neighborhoods have indicated that the traffic volume or travel speeds on some local streets have increased to an unacceptable level, although in many cases, speeding is caused by residents from immediate or adjacent neighborhoods.

The arterial and collector roadways shown in Table 2 are designed to carry substantial traffic volumes. Even a two-lane collector road with numerous access driveways is physically capable of serving traffic volumes in excess of 7,500 vpd without congestion depending on intersection operations, available gaps in traffic, and lane widths. For collector and local streets in residential areas, the volume of traffic generally accepted or tolerated by residents is significantly lower. This threshold is referred to as the "environmental capacity" of a roadway. The environmental capacity relates to the perceived speed of traffic, how difficult it is for residents to back out of driveways, and the overall perception of safety. The environmental capacity of a collector street is often cited as 3,000 to 3,500 vpd. The environmental capacity of a local street is between 1,500 to 2,000 vpd.

Residents of some neighborhoods are interested in traffic calming or management techniques to mitigate these problems. Traffic calming measures include changes in street alignment, installation of barriers or other physical devices, and enforcement to reduce traffic speeds and/or cut-through volumes, in the interest of street safety, livability, and other public purposes.

Increased enforcement has been identified as a key issue at public meetings regarding Citywide traffic issues.

Citizen complaints and issues regarding the volume and speed of traffic on these facilities are typically heard by the Traffic Safety Commission (TSC), which is comprised of seven appointed commissioners that are residents of the City. The TSC works together with City staff, including the City's Traffic Engineer, and investigates, reviews and analyzes traffic safety issues raised by community members and Public Safety agencies. The Traffic Safety Commission makes recommendations to the City Council regarding traffic safety and the potential implementation of traffic calming devices. As an advisory body, the Commission develops recommendations to the Planning Commission and City Council on transportation improvements and circulation issues.

Congestion at Schools – Over the years, vehicle congestion around several City schools has continued to be a controversial issue. The increased traffic is due in part to increased student population, but is more related to a trend in students that are driven to school instead of walking or bicycling. Most elementary schools in Saratoga generate a higher than typical number of vehicle trips due to a lack of sidewalks on many local streets and the ability for students to attend any school within the City. Student pedestrian and bicycle safety is a key concern for residents.

Special Event/Concerts – The traffic and parking demand for events at both the Mountain Winery and Villa Montalvo often cause delays for local traffic. Major events at the winery primarily occur on weekends

TABLE 3
Transit Load Factors –
Routes Serving Saratoga

Route	Capacity	*Avg. Max Load*	Load Factor
26	*38*	*9.4*	*0.25*
37	*25*	*3.8*	*0.15*
53	*38*	*4.4*	*0.12*
57	*38*	*6.6*	*0.17*
58	*38*	*3.6*	*0.09*

Notes:
Source: Valley Transportation Authority, August 2010.

and affect travel through the Village and on Pierce Road. Off-site parking at West Valley College and shuttle service have been used to reduce traffic for Villa Montalvo events. The City works with operators of both facilities and law enforcement to minimize impacts to City residents and businesses.

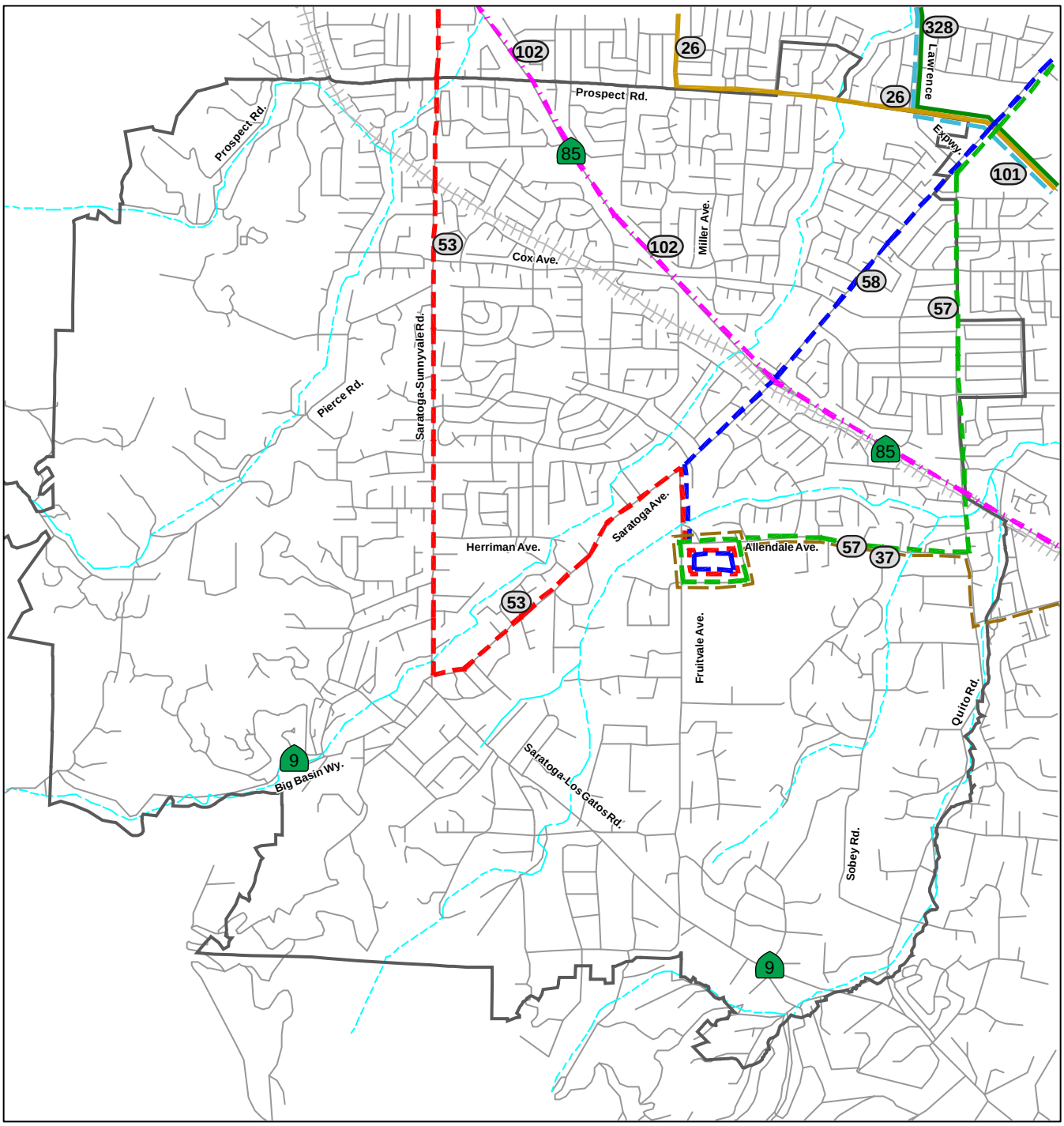
Transit

The Santa Clara Valley Transportation Authority (VTA) operates bus, light rail transit, and paratransit service throughout Santa Clara County. Bus transit service within the City of Saratoga includes six fixed routes (Routes 26, 37, 53, 57, and 58), one limited stop route (Route 328 on Lawrence Expressway), one commuter route (Route 101 on Lawrence Expressway), and paratransit service (dial-a-ride service for qualified individuals). Figure 5 illustrates the bus route paths operating within the City.

All of the fixed bus routes, except Route 26, operating through the City terminate at West Valley College and only provide service on Saratoga-Sunnyvale Road, Saratoga Avenue, Quito Road, and Allendale Avenue. No service is provided on Cox Avenue, most of Fruitvale Avenue, and the southern half of Quito Road. VTA ridership statistics or load factors from March 2010 are summarized in Table 3.

As shown, at least 68 percent of the available seat capacity is used on the routes serving Saratoga; and two routes (Route 26 and Route 53) have more passengers during peak service times than the available seating capacity. At public meetings, residents have indicated that the time and number of transfers required to access major destinations (e.g., regional malls, downtown San Jose) are deterrents to transit use. Recent reductions in service due to budget constraints have further reduced the attractiveness of transit as a viable alternative to private vehicle use and have negatively affected transit-dependent individuals.

Paratransit service is operated under contract with OUTREACH, a private, non-profit paratransit broker. This door-to-door service is provided to riders whom meet the eligibility requirements established by the Americans with Disabilities Act (ADA).



Legend:

- Route 26
- Route 53
- Route 57
- Route 58
- Route 53
- Route 101
- Route 328
- Express Route 102 (No Stops in Saratoga)
- XX Route Numbers

Figure 4 Revised May 2010	Existing Transit Service (Effective January 11, 2010)

Bicycle Facilities

Bicycle facilities include bike paths, bike lanes, and bike routes. Definitions of these facility classifications are presented below.

- *Bike Paths and Trails (Class I).* Bike paths are separated facilities designated for exclusive use of bicycles and pedestrians, and are physically separate from roadways by space or barriers.
- *Bike Lanes (Class II).* Bike lanes are lanes adjacent to the outer travel lanes reserved for the exclusive use of bicycles, and designated with special signing and pavement markings.
- *Bike Routes (Class III).* Bike routes are roadways recommended for bicycle use and often connect to bike lanes and bike paths. Routes are designated with signs only and do not have separate bike right-of-way or lane striping.

Saratoga has a limited number of dedicated bicycle facilities. Figure 5 depicts the locations of the existing bike lanes, paths, and routes. The paths shown on Figure 5 are multi-use trails and serve both bicycles and pedestrians.

Although the segment of Fruitvale Avenue between Allendale Avenue and Burgundy Way has painted shoulder stripes, the narrow shoulder includes a concrete valley gutter, which does not meet Caltrans standards or Valley Transportation Authority guidelines for bicycle lanes.

Saratoga-Los Gatos Road (SR 9) has continuous shoulder stripes along its length through the City of Saratoga. In most sections, the width of the shoulder meets Caltrans standard for bicycle lanes and the lanes are painted and signed as such. However, intermittent segments exist where the current striping does not meet Caltrans standards for bike lanes and the sections are officially designated bike routes, even though the shoulder width provides sufficient room for bicyclists to travel.

In August 2008, VTA adopted the Santa Clara Countywide Bicycle Plan (CBP). The CBP guides the development of major bicycling facilities by identifying Cross County Bicycle Corridors and other projects of countywide or intercity significance. Seven of the County's 24 roadway bicycle corridors and one of the County's ten separated path/ trail corridors traverse the City of Saratoga and provide direct bicycle connections to the surrounding jurisdictions. These routes primarily run along Prospect Road, Saratoga Avenue, Quito Road, Saratoga-Sunnyvale/Saratoga-Los Gatos (SR 9), Allendale Avenue, Miller Road, and Cox Avenue.

Other important types of bicycle facilities are Bicycle and Pedestrian Bridges, Tunnels, at At-Grade Railroad Crossings. In the *2008 CBP* these facilities are referred to as Across Barrier Connections (ABCs). These facilities provide important connections for pedestrians and bicyclists across physical

barriers, such as freeways, rivers, creeks, and railroad tracks. Travel distances for bicyclists and pedestrians can be significantly reduced by providing connections across these barriers, and therefore, they help increase the viability of bicycle and pedestrian travel.

SR 85 and the parallel running UPRR tracks traverse through the northern part of the City of Saratoga at a northwest-southeast angle and are the major barrier to pedestrian and bicycle travel within the City.

The City of Saratoga has two Bicycle and Pedestrian Bridges that provide direct connections across SR 85:

- Azule Park on Goleta Avenue to Kevin Moran Park on Scully Avenue.
- Seagull Way to Kevin Moran Park on Scully Avenue.

The City does not maintain any official crossing of the UPRR, though there are future plans to provide an at-grade pedestrian crossing between Fredericksburg Drive and Guava Court. This improvement is discussed in more detail in the section on Future Conditions and "Suggested Routes to School," since this crossing of the UPRR tracks would provide a direct connection to Blue Hills Elementary School.

Figure 5 illustrates the locations and type of ABCs within the City of Saratoga.

The City of Saratoga also has several short-cuts and school pathways that use easements, parks or other means to reduce the trip length of bike and walk trips. Such pathways include but are not limited to the connection between Saratoga Avenue and Fruitvale Avenue that runs through the orchard and connects to the Saratoga Library. Another pathway travels between Saratoga Avenue at Herriman Avenue to Redwood Elementary School. These pathways are an important bicycle and pedestrian infrastructure that serve the residents of the City of Saratoga.

Pedestrian and Equestrian Facilities

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.

Many of the streets in Saratoga do not have sidewalks because of the City's rural planning principles. Of particular importance are the streets leading up to and around some schools that do not have sidewalks or are served by discontinuous sidewalk segments. Lack of sidewalks forces school children to share the roadway with vehicles. In many instances, parents elect to drive their students to school to avoid potential conflicts with vehicle traffic. Also noted as an issue is existing gaps in pedestrian paths or sidewalks on the major and minor arterial roadways throughout the City.

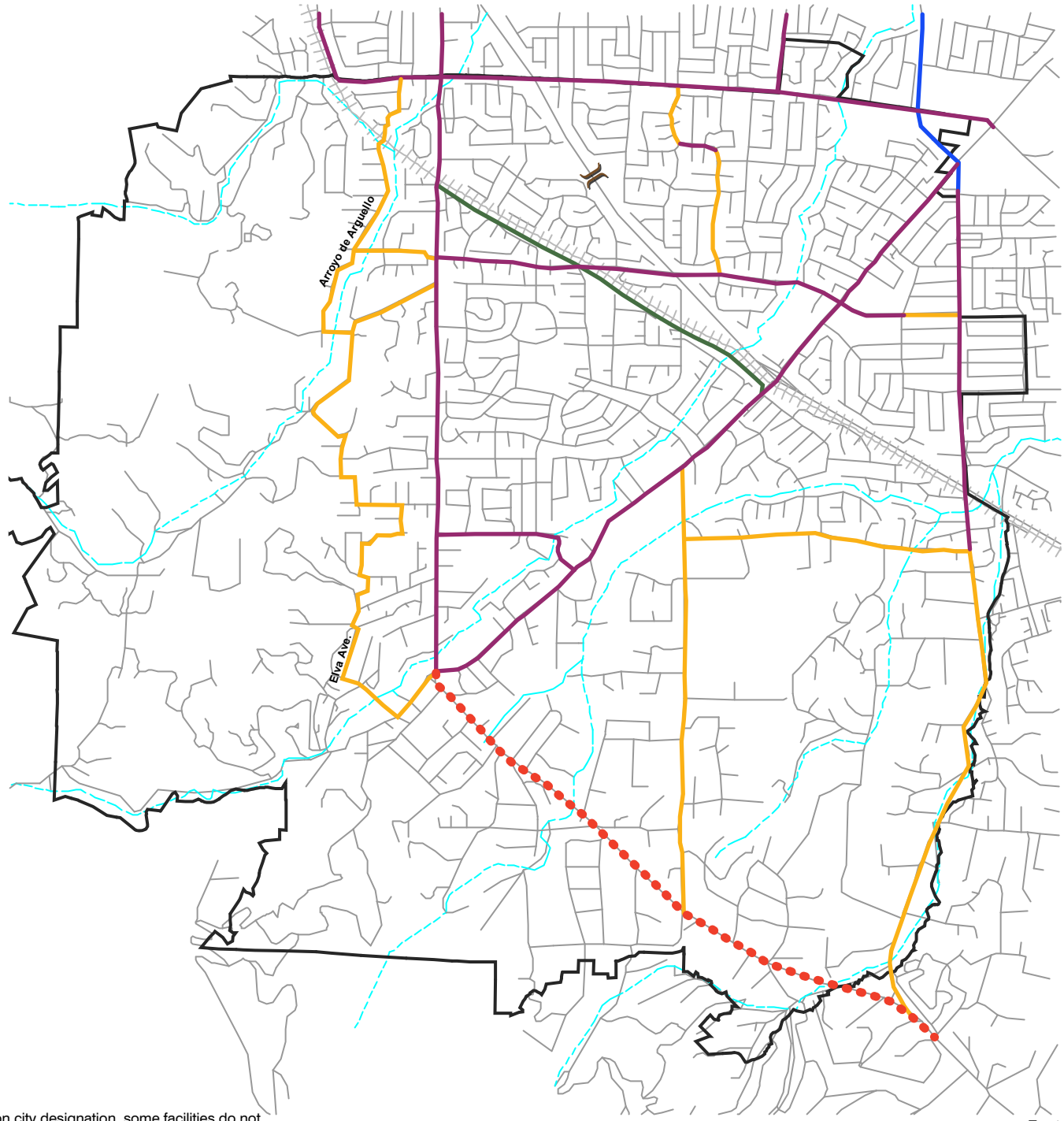
The City of Saratoga prepared an Open Space and Conservation Element in 2007. This document identified existing and proposed trails throughout the City. The existing trails are shown on Figure 6. Both pedestrians and bicyclists can use existing paved trails, like those on Fruitvale Avenue.

Equestrians currently use the existing trail system for recreation purposes. The majority of horseback riding occurs in the western hills of the City near Pierce Road with some activity in other areas including Sobey Road and south of SR 9.

Rail Service

The City is currently served by a single rail line that extends generally parallel to SR 85 between Prospect Road and Quito Road. The rail line crosses six streets in Saratoga with one grade-separation (Saratoga Road), four at-grade crossings with gates (Prospect Road, Saratoga-Sunnyvale Road, Glen Brae Drive and Quito Road), and one at-grade crossing with lights but no gates (Cox Avenue).

The railroad is currently operated by Union Pacific Company and is only used by the Lehigh Permanente Quarry and Cement Plant (formerly Kaiser-Permanente). Trains run between Milpitas and the Quarry on Mondays, Wednesdays, and Fridays at 9:00 am, and the trains return at around 2:00 pm. Trains do not stop within the City and do not substantially impact vehicular traffic.



Note:
Based on city designation, some facilities do not not include signage or adequate bike lane width.

Legend:

- Bicycle Paths (Class I Facilities) - See Existing Trail Easements
- Bicycle Lanes (Class II Facilities)
- Bicycle Routes (Class III Facilities)
- Expressway Segments (Bicycles Permitted)
- Bicycle Lanes/Routes (Class II/III Facilities) Across Barrier Connections

Note: Most sections of Saratoga-Los Gatos Rd. include bike lanes. On intermittent segments, current striping does not meet Caltrans standards for bike lanes and these sections are technically considered bike routes, even though the shoulder width provides sufficient room for bicyclists to travel.

Figure 5
Revised August 2010

Existing Bicycle Facilities

III. OTHER CIRCULATION ISSUES

In addition to the transportation facilities and services described in Chapter II, the circulation-related issues in this chapter will be used to formulate policies in the Circulation and Scenic Highway Element update.

Traffic Calming

As noted in Chapter II, some local streets have experienced increases in traffic resulting from changes in travel patterns and overall changes in regional through traffic throughout Santa Clara County. Other problems such as speeding on residential streets and those near schools are also potential candidate streets for calming measures. Traffic calming measures are the focal point of overall neighborhood traffic management.

Suggested Routes to School

As noted in Chapter II, the rural planning principles employed in Saratoga include not constructing sidewalks on many local residential streets to reduce the amount of impervious surface and to maintain a high level of visual quality. Given the relatively low traffic volumes on most streets, the combination of pedestrian and vehicle traffic in the roadway does not typically result in problems. However, many parents of elementary school-age children do not permit their children to walk to school because of potential vehicle-pedestrian conflicts. Painted crosswalks at some intersections help to delineate the desired path for students walking between various neighborhoods and their school.

Thus, many students are driven to and from school, and the result is increased congestion and delay. These factors contribute to an increase in the vehicle-pedestrian conflict potential, especially in the immediate vicinity of the school. Although the school districts have been actively participating in efforts to increase ridesharing to reduce overall traffic volumes at elementary schools, additional measures will be necessary to decrease the number of students driven to school.

Part of the problem may be that many parents are unaware of route options their children could use to get to and from school. Some routes include streets with traffic control devices that make drivers more aware of other vehicular and pedestrian traffic. For example, a student crossing at a stop sign-controlled intersection is preferable over crossing at an uncontrolled location.

The four elementary school districts in Saratoga (Saratoga Union, Cupertino Union, Campbell Union, and Moreland) and the various private schools have not formally adopted a Suggested Routes to School Program. This program would help parents identify appropriate travel paths for student pedestrians and bicyclists. Implementation of such a program could also help to reduce vehicle trip generation at most school locations and through neighborhoods. Although the district would likely establish and maintain such a program, the City would be an effective partner in preparing the inventory of traffic control devices and streets.

Parking

Parking is typically considered a separate issue from overall circulation. However, the presence of on-street parking has a direct effect on roadway capacity. In addition, off-street parking deficiencies can cause vehicles to re-circulate on public streets, increasing traffic volumes and congestion by reducing capacity for through traffic.

Saratoga's zoning ordinance includes parking requirements to ensure that adequate numbers of spaces are provided on-site for most uses, as well as minimum stall dimensions that are consistent with current standards for other jurisdictions. These regulations apply to all new developments and may be applied to existing uses that are modified or expanded.

Valet parking is provided at two restaurants on Big Basin Way (SR 9) in the Village area. At peak times, parking demand exceeds the available number of on-street and off-street spaces in the immediate vicinity of these establishments. The valet service is provided for La Fondue and the Plumed Horse on Big Basin Way past 4th Street. This is one method of maximizing the use of available parking and reducing conflicts with street traffic.

Transportation Demand Management Programs

Transportation Demand Management (TDM) programs are designed to reduce the number of vehicle trips and the amount of peak period traffic by encouraging employees to use modes other than the single-occupant automobile for transportation to and from the workplace and to travel during non-peak times. Typical TDM components include:

- On-site TDM coordinator
- Carpool/vanpool match program and preferential parking for carpools/vanpools
- Secure bicycle storage facilities
- On-site shower facilities
- Flex-time (i.e., staggered hours that begin and/or end outside the peak commute hours)
- Alternative work schedules (e.g., 9/80 schedule)
- Provisions for telecommuting
- Shuttle bus service
- Guaranteed ride home program
- Cash incentives/Transit subsidies/On site transit pass sales
- Education programs

The City does not have adopted policies or implementation programs regarding specific TDM measures. Recent court decisions have restricted the methods by which jurisdictions can require TDM measures for developments. Typically, TDM measures are included as part of a project through the development agreement process for new projects or through approval of use permit modifications for existing developments. The City strongly supports methods that decrease the overall vehicle travel demand and encourages residents and employees to maximize the use of TDM measures.

Transportation Impact Analysis (TIA) Reports

The City requires some new development and redevelopment projects to prepare a transportation impact analysis (TIA) to evaluate the effect of these projects on the current transportation system. City staff has the discretion to require focused studies regarding access, sight distance, and other operational and safety issues, in addition to or in lieu of roadway/intersection capacity analysis.

To the extent possible, the analysis of transportation impacts should be consistent with the criteria maintained by the VTA, the regional planning agency for Santa Clara County. Impact criteria for freeways, intersections, and alternative modes are published in the VTA's guidelines for impact analyses. For developments that cause significant and unavoidable impacts, the City should use its discretionary approval process to determine whether the project would provide a clear and overall benefit to Saratoga.

The TIA process allows the City to request specific improvements from private developers based on the relative impact of the project.

IV. SCENIC HIGHWAYS AND CORRIDORS

Background

The undulating terrain and extensive natural and cultivated foliage in and around Saratoga provide scenic drives throughout the City. As development in the hillside areas has increased, the City has employed strict policies to preserve the natural beauty of the mountains. In addition, many of the City's collector and local streets are very attractive. A scenic highway provides the motorist with a continuous, varied visual experience. Scenic highways are selected by how pleasing the field of vision is for touring vehicles.

Roadways can be officially designated as "scenic" through either the State Scenic Highways program or through the Santa Clara County Scenic Highways program. The State Scenic Highway Element's legislative authority was passed into State law on April 16, 1971. Saratoga originally adopted its Scenic Highways Element in 1974. The most recent Guidelines for the Official Designation of Scenic Highways was updated by Caltrans in March 1996.

The purpose of the element is to inventory scenic corridors and to develop plans to protect them. The Master Plan for Scenic Highways identifies those highways that are eligible for official designation as State Scenic Highways. Eligible highways can only become officially designated by the State after the local jurisdiction has adopted and implemented a plan to protect and enhance the scenic corridor. A detailed list of current officially designated State highways and eligible routes is maintained by Caltrans and is available on its web site (www.dot.ca.gov).

County roadways may be designated County Scenic Highways and are protected by the Santa Clara County zoning ordinance which requires 100-foot setbacks for buildings and structures along the scenic route. The County Board of Supervisors, on advice from the State Department of Transportation, designates those roads that qualify as officially designated County Scenic Highways.

Existing Scenic Corridors

Currently, SR 9 is officially designated as a State Scenic Highway Corridor from the Los Gatos city limit (east of Saratoga), through the Village, to SR 35/Skyline Boulevard at the Santa Cruz County Line (i.e., at Saratoga Gap).

Based on the section 3.30.050 of the Santa Clara County Municipal Code, five roadway segments are currently designated as County Scenic Roadways:

- Skyline Boulevard (Saratoga Gap to Loma Prieta)
- Congress Springs Road (Saratoga Gap to the Saratoga City limit)
- Bohlman Road/Montevina Road
- Mt Eden Road
- Sanborn Road

V. FUTURE CONDITIONS

The City of Saratoga is essentially built out with the majority of vacant parcels located in the western and southern hillside areas. These areas are typically zoned for single-family residential development at low densities. Some redevelopment in the City is projected, however, the commercial areas are generally well-established and substantial traffic growth from land uses in the City is expected to be limited. The majority of increases in traffic volumes is expected to result from increased through traffic; that is, vehicles that do not have an origin or destination in Saratoga.

Future Traffic Volumes

Future traffic volumes for the major streets in Saratoga were developed based on forecasts from the Countywide transportation demand model maintained by the Santa Clara Valley Transportation Authority (VTA). The countywide model includes a roadway network of the major streets and highways in the County plus land use aggregated for specific geographic areas. Models representing 2005 and 2030 roadways and land uses were utilized for this analysis. The land use assumptions are based on forecasts prepared by the Association of Bay Area Governments (ABAG) and approved by each City. A review of the land use inputs show that the total population increase between 2005 and 2030 is approximately 2,400 persons, while the total number of jobs in the City is expected to increase by approximately 950 during this period.

2005 and 2030 traffic volumes on selected roadway segments in the City of Saratoga were compared to calculate an annual compounded growth factor. Based on this analysis an annual growth factor of 1.2 percent was applied to the existing volumes in Table 2 to estimate future year 2030 traffic volumes for the study roadway segments.

Future Traffic Operations

The final future year traffic volumes were then compared to theoretical capacities to estimate roadway operations in 2030, assuming no new roadway improvements in the City. A summary of the projected 2030 levels of service is presented in Table 4.

The results in Table 4 show that six of the eighteen study roadway segments will operate near or at capacity on a daily basis. The six areas of congestion include:

- Saratoga Avenue between Lawrence Expressway and Cox Avenue
- Saratoga Avenue between Cox Avenue and SR 85
- Saratoga Avenue between SR 85 and Fruitvale Avenue
- Saratoga Avenue between Fruitvale Avenue and Saratoga-Sunnyvale Road
- Quito Road between Saratoga Avenue and Allendale Avenue
- Quito Road between Allendale Avenue and Saratoga-Los Gatos Road

TABLE 4

Year 2030 Roadway Segment Levels of Service[1]
(Assumes No New Roadway Capacity Improvements)

Roadway Segment	Projected Year 2030 Volume[1]	Roadway Type	Number of Lanes	LOS
Prospect Road (Saratoga-Sunnyvale Road to Miller Avenue)	20,700	Major Arterial	4	D
Prospect Road (Miller Avenue to Lawrence Expressway)	23,300	Major Arterial	4	D
Saratoga-Sunnyvale Road (Prospect Road to Cox Avenue)	33,200	Major Arterial	4	D
Saratoga-Sunnyvale Road (Cox Avenue to Saratoga Avenue)	22,300	Major Arterial	4	D
Pierce Road (Surrey Lane to Comer Dr.)	3,800	Collector	2	B
Cox Avenue (Saratoga-Sunnyvale Road to Saratoga Avenue)	13,300	Minor Arterial	2	D
Saratoga Avenue (Lawrence Expressway To Cox Avenue)	40,500	Major Arterial	4	F
Saratoga Avenue (Cox Avenue to SR 85)	46,900	Major Arterial	4	F
Saratoga Avenue (SR 85 to Fruitvale Avenue)	41,700	Minor Arterial	4	F
Saratoga Avenue (Fruitvale Avenue to Saratoga-Sunnyvale Road)	21,000	Minor Arterial	2	F
Big Basin Way (Saratoga-Sunnyvale Road to Pierce Road)	8,000	Minor Arterial	2	C
Fruitvale Avenue (Saratoga Avenue to Allendale Avenue)	25,300	Minor Arterial	4	D
Fruitvale Avenue (Allendale Avenue to Saratoga-Los Gatos Road)	10,800	Minor Arterial	4	C
Allendale Avenue (Fruitvale Avenue to Quito Road)	9,700	Collector	2	D
Quito Road (Saratoga Avenue to Allendale Avenue)	22,600	Major Arterial	2	F
Quito Road (Allendale Avenue to Saratoga-Los Gatos Road)	17,500	Minor Arterial	2	E
Saratoga-Los Gatos Road (Saratoga Avenue to Fruitvale Avenue)	16,500	Major Arterial	4	D
Saratoga-Los Gatos Road (Fruitvale Avenue to Quito Road)	20,400	Major Arterial	4	D

Note: [1] Average Daily Traffic (ADT) volume based on traffic counts collected November 2006 and February 2010.
[2] Level of Service (LOS) based on roadway capacities defined in the technical appendix.
Source: Fehr & Peers, March 2010.

The City's policy is to generally maintain a minimum of Level of Service (LOS) D operations at all signalized street intersections and roadway segments that are under City jurisdiction. Intersections and roadways located in the Santa Clara County Congestion Management Program are held to a LOS E standard.

In some cases it may not be practical or feasible to implement improvements to maintain Citywide LOS D operations. In those cases, the City may consider accepting a lower level of service. In the case of the six segments noted above, for example, the City has determined that no practical and feasible improvements can be implemented to lessen or avoid the lower levels of service because of right-of-way and funding constraints.

Explanation of acceptance of level of service less than LOS D on these segments of Saratoga Avenue:

- Saratoga Avenue (Lawrence Expressway to Cox Avenue)
- Saratoga Avenue (Cox Avenue to SR 85)
- Saratoga Avenue (SR 85 to Fruitvale Avenue)
- Saratoga Avenue (Fruitvale Avenue to Saratoga-Sunnyvale Road)

Vehicle capacity enhancements on Saratoga Avenue, such as roadway widening or additional turn lanes at intersections to improve the future LOS to acceptable levels would require elimination of bike lanes, on street parking, and/or removal of the center median.

Explanation of acceptance of level of service less than LOS D on these segments of Quito Avenue:

- Quito Road (Saratoga Avenue to Allendale Avenue)
- Quito Road (Allendale Avenue to Saratoga-Los Gatos Road)

The Quito Road segment between Saratoga Avenue and Allendale Avenue would require similar modifications to improve the service levels, though the SR 85 overcrossing as currently configured would not be able to accommodate an additional travel lane in each direction. Without additional right-of-way acquisition on the segment south of Allendale Avenue, Quito Road would not be able to accommodate vehicle capacity enhancements. (see the section *on Potential Roadway Improvements* on page 28 for further discussion). In addition, vehicle capacity enhancements would conflict with existing or planned bicycle, pedestrian, or transit facilities and service on roadways

For these reasons these segments will be allowed to operate at LOS F in the future.

Daily Vehicle Miles Traveled

A performance measure used to quantify the amount of city- or region-wide 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 how much fuel vehicles burn.[1] One combusted gallon of gas from a vehicle is equal to approximately 24 pounds of carbon dioxide. Given today's average fuel mileage of vehicles (i.e., approximately 22 miles per gallon), one mile of travel equates to about

[1] Conditions influencing the amount of fuel consumed per VMT include the speed of travel, congestion stops and starts, length of trip, layover between trips, and the vehicle type and fuel economy.

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 of a calculation – one based on the number of vehicle trips multiplied by the distance traveled by each car. The volume and distance of traffic depends on land use types, density/intensity, and patterns as well as the supporting transportation system.

Two key data sources for information on land use and travel patterns in Saratoga and Santa Clara County were used to estimate VMT under existing and 2030 conditions for the City: the land use projections from ABAG and the Countywide transportation demand model maintained by the Santa Clara Valley Transportation Authority (VTA). The 2007 land use projections from ABAG[2] were used to determine the number of vehicle trips generated by each land use type. ABAG projections were also compared to those in the VTA model, which showed that the number of residential units compared within 0.5% and the number of employees compared within 4%, or 350 jobs. Average trip lengths were developed for each trip purpose (work, school, recreation, etc.) based on the Metropolitan Transportation Commissions Bay Area Travel Survey (2000) and local information. The VTA model was used to determine the number of trips that are internal to the City of Saratoga (i.e., those that both start and end within the City boundaries). The resulting VMT estimates were calculated for existing and 2030 conditions, as summarized in Table 5.

As shown in Table 5, VMT increases between 2007 and 2030, by approximately 60,000 vehicle-miles, or 6.9% over 2007 conditions. This increase seems reasonable, when compared to the 8% increase in residential units and 13% increase in employment based on ABAG projections between 2007 and 2030. Additionally, VMT per service population (resident population plus employment) was calculated to show the change in VMT relative to the projected land use growth. VMT per service population is similar to VMT per capita, but service population also accounts for employment within the City, which contributes to VMT generated. VMT per service population is projected to decrease by 0.5 vehicle-miles, which means that the VMT generated by the City is growing at a lesser rate than the land use growth and that the greenhouse gas emissions per service population from VMT are decreasing slightly with the future increases in land use.

TABLE 5
Existing and Future Vehicle Miles of Travel (VMT)

Performance Indicator	2007	2030	Change (2030 – 2007)
VMT	877,819	938,000	+60,181
VMT per Service Population[1]	22.8	22.3	-0.5

Notes:
1 Service population is defined as resident population plus employment.
Source: Fehr & Peers, March 2010. VMT calculations based on ABAG 2007 and 2030 land use projections for the City of Saratoga's Sphere of Influence.

[2] 2007 ABAG land use projections are the most recent approved.

Potential Roadway Improvements

In general, the increase in traffic on Saratoga streets will primarily consist of through traffic since the City is essentially built out. However, additional capacity will be required to maintain acceptable traffic operations or to minimize delays to the extent possible at locations with excessive congestion.

When considering roadway widening the City will balance the needs of all roadway users (vehicles, bicycles, pedestrians, and transit) while maximizing the use of the existing infrastructure and systems. Intersections typically represent the constraints points in roadway operations, since they determine the flow of traffic on a roadway. As noted previously, congested daily operations can indicate that overall traffic demand meets or exceeds the capacity of a given segment. Therefore, peak-hour intersection operations and potential intersection improvements should be evaluated prior to recommending widening of roadway segments. This will allow the City to maximize the use of existing infrastructure while balancing the needs of all roadway users.

To provide the opportunity for future roadway capacity and freeway access, the City should establish a policy to limit any development that could encroach on future interchange footprints at both the Prospect Road and Quito Road overcrossings. However, the City and the VTA do not anticipate land use changes to necessitate the construction of additional interchanges on SR 85.

More detailed analysis and Citywide approval will be required to determine the specific environmental and traffic impacts of any new freeway access. Extensive public and environmental review would be required. Based on the process used for approval of the Saratoga Avenue interchange, the addition of any new interchange should require a Citywide vote for approval. While provision of additional ramps would reduce traffic at and near the Saratoga Avenue interchange, traffic congestion is expected to increase at intersections near any new interchange.

Roadway Functional Classification

Roadway functional classification is used to determine appropriate traffic levels for streets and highways, as well as the appropriate fronting land uses. In addition,

roadway classifications are used to determine the applicability of traffic calming devices. The City will maintain the current roadway classification system as shown in Figure 2. However, in the future the City will evaluate its roadway classification system as roadway volumes, multi-modal access, and fronting land uses change.

Truck Traffic

As noted previously, truck traffic is not considered to be an existing problem in the City of Saratoga. Even with increased through traffic on City streets, the number of trucks without a destination or origin in the City traffic is not expected to increase substantially. Additional development within Saratoga is expected to be limited given the fact that the City is mostly built out. Low volumes of truck traffic will be generated by the construction of new single-family homes or the limited redevelopment of other areas. This traffic is expected to have a negligible effect on overall Citywide circulation.

SR 9 west of Saratoga is not conducive to truck travel because of its design, and large trucks are not permitted on SR 85. Article 9-40 of the City's Ordinance currently identifies designated routes for trucks that do not make local deliveries or pick-ups (see Figure C-3). Truck routes should include City streets that do not have front-on housing, are not designated as a heritage lane, or have design features that do not favor the movement of large trucks (e.g., sharp curves, narrow travel lanes). Although Saratoga Avenue between Fruitvale Avenue and SR 9 would not typically be included based on some of the aforementioned criteria, no alternative routes exist that are considered feasible because of the adjacent neighborhoods, narrower lane widths, overhead landscaping, and circuitous paths. Because it provides direct connectivity through the City, it is therefore included as a truck route. Given their connectivity between communities, the State Highway segments are considered to be designated truck routes.

Improvements to Other Travel Modes

Similar to the rest of the Bay Area, increasing traffic volumes and the limited opportunities for expanding roadway capacity in Saratoga will increase the demand on alternative travel modes. Potential improvements to each mode are discussed below.

Transit

The Santa Clara Valley Transportation Authority (VTA) controls fixed route bus service in the City of Saratoga. In addition to making service changes to accommodate near-term demand, the VTA does long-range planning to determine future service needs. Recent reductions in service due to budget constraints have reduced the attractiveness of transit as a viable alternative to private vehicle use and have negatively affected transit-dependent individuals.

The City of Saratoga can help improve transit service by requiring development projects to install bus turnouts, sidewalks, and other transit amenities in areas that may be served by transit. In addition, encouraging higher density development in the vicinity of key transit stops such as West Valley College will further expand travel opportunities for residents and employers in the City.
Input from community members, as well as parents of school students, indicates that residents are also interested in improved local transit service within Saratoga. A local shuttle system would allow residents to travel to key destinations (i.e., shopping centers, schools, commercial areas) without increasing traffic. School traffic is a major generator, especially during the AM peak period. The City should actively pursue a study to assess the feasibility of such a system in concert with the business community and school districts.

Access to the VTA's light rail system is provided at the Vasona station just west of Winchester Boulevard and north of SR 85 in the Town of Los Gatos. This light rail extension has a negligible impact on transit service in Saratoga given the distance between the station and the city, and the fact that many patrons need to drive to the station. A greater impact would occur with provision of light rail service in the SR 85 corridor through the City. However, the VTA does not have any plans to extend light rail in the SR 85 corridor through the City in the foreseeable future. In general, the City of Saratoga will continue to implement policies and actions that support local and regional transit access.

Bicycle Facilities

The City's *Proposed Bicycle Network* (June 1995) identified a series of new bicycle facilities to complete the Citywide bicycle system. The new facilities in this document included both bicycle lanes and bicycle route designations. Three roadway cross-sections were included for specific street segments that meet current Caltrans standards and Valley Transportation Authority guidelines. However, no detailed design standards for all Class I (paths), Class II (lanes), or Class III (routes) facilities were described or adopted.

Field reviews conducted in 1999 showed that, in some cases, bicycle lanes proposed in 1995 could not be accommodated without substantial right-of-way acquisition, or elimination of on-street parking in areas with continuous front-on housing.

A revised set of proposed facilities was prepared based on previously published information and recent field data. The key new facilities include:

- *UPRR Multi-Use Path* – A multi-use path in the Union Pacific Railroad corridor that will ultimately link the City of Cupertino to the Town of Los Gatos. The portion of the multi-use path between Saratoga-Sunnyvale Road and Saratoga Avenue is currently under construction and should be completed by the end of 2010.
- *Pierce Road Multi-Use Path* (Mount Eden Road to Highway 9/Congress Springs Road) – A future multi-use path west of and parallel to Pierce Road would link the proposed bike path to the multi-use path on Highway 9/Congress Springs Road.

- *Highway 9/Congress Springs Road* (west of Toll Gate Road*)* – The future multi-use path would extend south of and parallel to Highway 9/Congress Springs Road and would provide an east-west connection along Highway 9 to the west of the Village.
- *Fruitvale Avenue Bike Lanes* (Saratoga Avenue to Burgundy Way) – This segment is recommended for bike lanes. The width of this roadway segment could accommodate bicycle lanes by reducing the width of existing travel lanes.
- *Allendale Avenue Lanes* (Fruitvale Avenue to Vasona Creek) – The width of this roadway segment could accommodate bicycle lanes by reducing the width of existing travel lanes.
- *Highway 9/Saratoga-Los Gatos Road* – The City will work with Caltrans to modify the existing striping to provide continuous bike lanes through the City of Saratoga.

- *Scotland Drive and Cumberland Drive Route* (Saratoga Avenue to Cox Avenue) – This route is recommended to provide an additional north-south bicycle facility until the UPRR multi-use path is constructed. This route also provides an alternate travel path for inexperienced bicyclists who want to avoid the SR 85/Saratoga Avenue interchange.
- *Pierce Road* (Surrey Lane to Mt. Eden Road) – This future route is recommended to provide an east-west bicycle facility in the Saratoga Hill's area of the City and would connect to the future Class I bike trail parallel to Pierce Road between Mt. Eden Road and Highway 9.
- *Highway 9/Big Basin Way* (4th Street to Toll Gate Road) – This future route is recommended to provide an additional east-west bicycle facility on Highway 9 that provides access to the village area and connect to points west. The bike route would connect to the future Class I bike trail parallel to Highway 9/Congress Spring Road west of Toll Gate Road.

To ensure consistent implementation of the proposed facilities, the City should formally adopt a set of design guidelines for bicycle facilities. The VTA has prepared a set of technical guidelines for bicycle facilities and services to be used by local agencies in Santa Clara County. All existing facilities should be upgraded to include appropriate signage and pavement markings and modified to meet minimum design standards based on these guidelines. For example, the travel lanes on Fruitvale Avenue between Saratoga Avenue and Burgundy Way should be re-striped to provide adequate bicycle lane width so that riders do not have to travel in the drain path parallel to the rolled curb. The City should prepare a Bicycle Master Plan (BMP) that includes all of the

proposed facilities and design standards. A formal BMP document substantially improves the City's opportunities for obtaining State funds for bicycle improvements.

Pedestrian Facilities/Trails

As noted previously, most collector and local streets in Saratoga do not have sidewalks, which is in keeping with the rural planning principles maintained by the City for many years. On most minor streets, pedestrians are required to share the roadway with vehicles, which is not typically a problem since traffic volumes are relatively low and travel speeds are usually less than 30 miles per hour. However, a lack of sidewalks in the immediate vicinity of schools can be a problem during peak traffic demand in the morning and afternoon.

A review of all existing major and minor arterial roadways showed that several segments have gaps in sidewalks or separate pedestrian paths. These segments include portions of Prospect Road, Cox Avenue, Saratoga-Sunnyvale Road, Saratoga Avenue, Allendale Avenue, Fruitvale Avenue, Quito Road, and Saratoga-Los Gatos Road (SR 9). While pedestrians sharing the roadway with vehicles can be accommodated on local streets, pedestrians should not enter the traveled way of roads where traffic volumes and travel speeds are substantially higher. These gaps should be closed to improve pedestrian travel and safety. Enhanced pedestrian access will provide an alternative to automobile travel and will improve access to available transit facilities and services.

As discussed in more detail below under Suggested Routes to School, the City has plans to establish a formal at-grade-crossing of the UPRR tracks between Fredericksburg Drive and Guava Court, which serves as a direct access to Blue Hills Elementary School.

The City completed a comprehensive study of multi-use and pedestrian trails as part of a 2007 Open Space and Conservation Element. The plan included existing trail easements (both developed and undeveloped) as well as the location of proposed trails. The current plan links the population centers in Saratoga to the great scenic and open space resources available in the Santa Cruz Mountains. Although a

primary function of the trail system is to provide recreational opportunities, trail links to sidewalks and low volume streets will provide a travel alternative for other purposes including shopping, school, and employment trips. The City should ensure implementation of the proposed trail system.

Suggested Routes to Schools

Directly related to pedestrian and bicycle travel is the issue of students traveling between their home and school. Although students in Saratoga are permitted to attend any school within their district, the majority

of students attend their neighborhood school. In many instances students live less than a mile from school, which is a reasonable distance to walk or bike to school. However, most local and collector streets do not include sidewalks except in the immediate vicinity of each school. Based on this information and recent studies at several area schools, many Saratoga students are driven to school for two reasons: 1) their residence is located beyond a reasonable walking distance, especially for students in the western and southern hills, and 2) parents perceive that the pedestrian and bicycle routes to school are dangerous because students must share the road with vehicular traffic.

Although school districts have the most direct contact with parents and students, the City of Saratoga should work with each district to ensure that students are provided with as much information as possible regarding safe travel to and from school. Thus, the City should work with each district to expand the current education efforts and prepare *Suggested Route to School* maps for each campus, and a *Guidelines for Safe Walking and Bicycling* handbook. Each of these items is described briefly below.

Suggested Route to School maps include all bicycle and pedestrian-related facilities and traffic control devices including: crosswalks, traffic signals, stop signs, paved sidewalks, and school sign installations. This type of map should be used by parents and students to choose the most appropriate route to school that maximizes the use of devices that control traffic and warn drivers of pedestrians.

A Guidelines for Safe Walking and Bicycling handbook is an informational pamphlet for parents and teachers to provide guidelines for safe pedestrian and bicycle travel. It provides text and illustrations to show the correct procedures for minimizing potential conflicts with vehicles and includes suggested activities that parents can do with their children. A section for parents with tips on selecting a suggested route to school is also included. This sample booklet should be reviewed by both the school district and City staff and included as part of future student education efforts. Similar to the sample route map, the sample handbook does not imply a guarantee of safety. Parental education and supervision is a key element of a child's approach to traveling on or near roadways.

Each District should continue its education programs and should encourage students to walk and bicycle to school as appropriate. The City should continue to pursue opportunities to enhance pedestrian and bicycle facilities, especially in the vicinity of schools.

The City has been working with the VTA to restore a former school route to Blue Hills Elementary School that consisted of an at-grade pedestrian crossing of the UPRR tracks between Fredericksburg Drive and Guava Court. The City submitted the Blue Hills School Railroad Crossing Safety Project for inclusion *Valley Transportation Plan 2035* (VTP 2035) Bicycle Element to restore and improve the at-grade pedestrian railroad crossing. This project was evaluated and accepted into VTP 2035 as Project #B75 with a Bicycle Expenditure Program allocation of $300,000.

Potential Scenic Highways and Corridors

Several roadways in or near the Saratoga Sphere of Influence have the potential for protection under the State and County scenic highways programs. These facilities are described below. Local policies and programs to maintain scenic corridors within the City of Saratoga are also presented.

Eligible State Highways

Besides SR 9, the only other highway that is currently considered eligible for Scenic Highway designation is SR 35/Skyline Boulevard from SR 9 (at Saratoga Gap) to the Santa Clara County-San Mateo County line. Since the majority of views from this segment are to the west and south, Santa Cruz County is ultimately responsible for developing a scenic highway program for this segment. In San Mateo County, SR 35 is an officially designated route.

Eligible County Roadways

Numerous corridors in the Saratoga Sphere of Influence could be considered under the County's Scenic Highways protective ordinance. However, currently no new segments have been designated for the County's Scenic Highways protective ordinance. Through the community outreach process, the City should support designation of such facilities to increase the aesthetics of the surrounding area.

Local Measures to Maintain Scenic Roadways

Arterial roadways and collector and local streets are not eligible for the existing scenic highway protection programs. However, efforts to beautify these facilities contribute to the overall aesthetic appeal of the City. Several locations within the City have been identified as having poor visual quality areas because of extensive commercial development and/or limited landscaping. Key corridors that could be improved include portions of Saratoga Avenue, Quito Road, and Prospect Road. The gateway from Cupertino into Saratoga at the Saratoga-Sunnyvale Road/Prospect Road intersection was recently improved to provide landscaping and beautification.

The City of Saratoga has numerous ordinances and procedures to require new development projects, redevelopment projects, and property/building modifications to contribute to the establishment and maintenance of scenic corridors. These measures include:

- Parcel re-zoning
- Minimum site frontage requirements
- Subdivision requirements for development projects to maintain topography
- Landscaping requirements between fences/walls and major roadways, and on dead-end streets
- Design review of most residential and commercial developments by the Planning Commission
- Requirements for underground utilities/wiring
- Special ordinances for hillside subdivisions to provide erosion control
- Building structure height restrictions
- Permit requirements for tree removal
- Establishment of scenic easements in hillside subdivisions
- Aesthetic/scenic policies in the Hillside Specific Plan

VII. GOALS, POLICIES AND IMPLEMENTATION MEASURES

Based on the existing features of the transportation system in the City and the projected future travel demand, a set of updated goals, policies, and implementation measures was developed for the Circulation and Scenic Highway Element. This information has been modified by the Traffic Safety and Planning Commissions, and the City Council may make further revisions as appropriate.

Background

The existing low-density residential land use pattern combined with a limited amount of commercial support services, entertainment centers, and employment centers do not strongly support the need for a complex transit system. However, expanded transit service is needed to provide transportation opportunities for all residents and is an important alternative to automobile use. The use and expansion of other alternative modes, including bicycling and walking, is another key issue for providing a comprehensive Citywide transportation system. This approach is consistent with other County, regional, and statewide efforts to increase the use of non-automobile modes to create more sustainable communities and reduce the amount of pollutants and greenhouse gases emitted.

The "backbone" of the City's roadway network is a set of major and minor arterial roadways that provide the link between neighborhoods and the City's commercial services, and also the regional freeway system. Local and residential collector streets represent the rural nature of Saratoga. The pattern and design of local streets help to shape the image and identity of neighborhoods, influence perceived safety, change communication between neighbors, and increase the attractiveness of alternative modes. The Circulation Element was updated to further protect local neighborhoods and to set forth policies that will enhance travel throughout the City. The goals, policies and implementation measures begin on the following page.

CIRCULATION AND SCENIC HIGHWAY ELEMENT (CI)

A circulation element consisting of the general location and extent of existing and proposed major thoroughfares transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan.

A scenic highway element for the development, establishment, and protection of scenic highways pursuant to the provisions of Article 2.5 commencing with Section 260 of Chapter 2 of Division 1 of the Streets and Highways Code.

OVERALL TRANSPORTATION SYSTEM

Goal

CI.1a Provide a balanced, multi-modal transportation system in Saratoga to maintain mobility for all segments of the community and to maintain the City's small town character.

CI.1b Encourage healthy, active living, reduce traffic congestions and fossil fuel use, and improve the safety and quality of life of residents of the City of Saratoga by providing safe, convenient, and comfortable routes for walking, bicycling, and public transportation.

Policies

CI-Policy-1.1 The City shall encourage and participate in the implementation of a variety of modes of transport to serve Saratoga.

CI-Policy-1.2 Encourage development of cooperation strategies to support local and regional transportation solution and improvements.

CI-Policy-1.3 Provide safe, convenient and comfortable routes for walking, bicycling, and public transportation that encourage increased use of these modes of transportation, enable convenient travel as part of daily activities, improve the public welfare by addressing a wide array of health and environmental problems, and meet the needs of all users of the streets, including children, older adults, and people of disabilities.

STREET SYSTEM AND STANDARDS OF SERVICE

Goals

CI.2a Facilitate the safe movement of vehicular traffic within and through the City, taking into consideration the environmental, historical, and residential integrity of the City to maximize benefits and minimize adverse impacts and costs.

CI.2b For traffic management and street design, balance the efficiency of vehicular traffic with the safety and livability of residential areas.

CI.2c Strive to establish a transportation system of streets that accommodates all travel modes and users within the street right-of-way to the maximum extent possible.

Policies

CI-Policy-2.1 Make efficient use of existing transportation facilities and strive to reduce the total number of vehicle miles traveled through the arrangement of land uses, improved facilities for non-automobile modes, and enhanced integration of various transportation systems.

CI-Policy-2.2 Maintain and develop a City-wide street system that manages vehicular access, but also provides for emergency access.

CI-Policy-2.3 Maintain a minimum of Level of Service (LOS) D operations standard at all signalized street intersections and roadway segments that are under City jurisdiction except for intersections and roadways included in the Santa Clara County Congestion Management Program (which are held to a LOS E standard), and as otherwise specified pursuant to Policy 2.4.

CI-Policy-2.4 Accept Level of Service E or F operations on City-maintained roadways after finding that: 1) no practical and feasible improvements can be implemented to mitigate the lower levels of service, or 2) vehicle capacity enhancements would conflict with existing or planned bicycle, pedestrian, or transit facilities and services. A proposed development that exacerbates LOS E or F operations and causes a significant intersection impact should also be considered for approval if it will provide a clear, overall benefit to the City (e.g., library expansion or relocation, new community center).

CI-Policy-2.5 Ensure that new development or redevelopment projects provide adequate property dedication to accommodate future roadway and multi-modal access improvements at key intersections and other potential conflict areas.

CI-Policy-2.6 Efficiently manage traffic flow on major and minor arterial roadways to discourage through traffic in residential neighborhoods.

CI-Policy-2.7 Align and design collector streets to minimize adverse impacts on the character of residential neighborhoods through which they pass, while functioning efficiently to collect and distribute traffic.

CI-Policy-2.8 Design new local streets to reduce travel distance, promote alternative modes, and provide a more even distribution of traffic.

CI-Policy-2.9 Establish the primary access for major traffic generators on arterial roadways and design overall access to minimize traffic intrusion to residential neighborhoods.

CI-Policy-2.10 Strive to maintain traffic volumes and speeds on collector and local streets that are compatible with the character of the adjacent land uses, the function of the street, and bicycle and pedestrian access.

CI-Policy-2.11 Protect the integrity of and improve existing hillside streets by planning future development according to existing street function.

CI-Policy-2.12 Focus future improvements on the most congested intersections to maintain an acceptable level of mobility for all modes of transportation.

CI-Policy-2.13 Require development projects to mitigate and reduce their respective traffic and parking impacts by implementing practical and feasible street improvements to improve multi-modal access.

CI-Policy-2.14 Coordinate with the Santa Clara Valley Transportation Authority (VTA) to comply with the Congestion Management Program (CMP) Guidelines for CMP-designated facilities. Should the CMP-designated facilities degrade below the CMP standard of Level of Service E, the City will prepare a Deficiency Plan for the deficient facilities per the VTA's requirements.

Implementation Actions

CI-Action-2.1 Continue to use the Capital Improvement Program to project and implement needed improvements to the street system.

CI-Action-2.2 Implement roadway and signal timing modifications to improve operations and enhance safety (e.g., lengthen turn pockets, adjust left-turn phases, widen lanes).

CI-Action-2.3 Establish street and driveway accessibility requirements for all streets designated as a major or minor arterial roadway as shown on Figure C-2. Ensure that driveway or street access does not substantially impede arterial

traffic flow as part of the City review process for individual development projects.

CI-Action-2.4 Install coordinated signal systems on all major arterial roadways in the City to improve traffic flow as appropriate. Funding should be obtained from all available City, County, State and Federal funding sources, and developer contributions.

CI-Action-2.5 Evaluate the need for upgrading or enhancing intersection control (e.g., signalization, stop signs) at existing intersections on arterial roadways and collector streets to improve overall access and circulation.

CI-Action-2.6 Install traffic signals to serve existing and projected traffic demand, provide acceptable traffic operations issues, and enhance pedestrian safety.

CI-Action-2.7 Require a transportation analysis for all development projects resulting in 25 or more net new peak-hour trips. As appropriate, the analysis shall identify potential impacts to intersection and roadway operations, project access, and alternative travel modes, and shall identify feasible improvements or project modifications to reduce or eliminate impacts. City staff shall have the discretion to only require focused studies regarding access, sight distance, and other operational and safety issues, or to require detailed studies that generate fewer peak hour trips.

CI-Action-2.8 Evaluate development proposals and design roadway improvements based on established Level of Service standards without negatively affecting travel by other modes, and to be in conformance with Valley Transportation Agency's Bicycle Technical Guide.

CI-Action-2.9 Require that roadway improvements identified as mitigation measures for development projects be in place prior to issuance of occupancy permits.

CI-Action-2.10 Require new development or redevelopment projects to dedicate property to accommodate needed roadway improvements.

CI-Action-2.11 Identify potential capacity improvements and access modifications to maintain adequate circulation in the vicinity of the Civic Center, West Valley College, Redwood Middle School, the Public Library, St. Andrews School and Sacred Heart.

CI-Action-2.12 Consider paying for improvement costs to serve a development project, as appropriate, where the City's economic development interests may be served.

CI-Action-2.13 Continue to address neighborhood traffic management issues through public review and input provided by the Traffic Safety Commission.

CI-Action-2.14 Design local streets to carry low traffic volumes at low speeds and to function safely while minimizing the need for traffic control devices or enforcement. Physical features should include gentle curves, changes of grade, narrow widths, short lengths, and T-intersections where feasible.

CI-Action-2.15 Design streets to minimize impacts to topography, riparian habitats and wildlife corridors.

CI-Action-2.16 Implement the action programs identified in the Hillside Specific Plan to provide adequate vehicular access consistent with CI-Policy-2.11. Where feasible, improvements will include widening of travel lanes, increasing vertical clearance, installing additional signs, and providing new pavement overlays to improve safety.

TRUCK TRANSPORTATION

Goal

CI.3 Limit the intrusion of commercial truck traffic on streets within the City.

Policies

CI-Policy-3.1 Require trucks to only use the designated routes shown on Figure C-3 unless making a local delivery.

CI-Policy-3.2 Encourage or require deliveries to be made during off-peak periods (i.e., outside the morning and evening commute periods), especially in areas where intersections or roadways operate at LOS E or F during the peak periods.

Implementation Actions

CI-Action-3.1 Continue to strictly enforce the truck route ordinance by citing violators.

CI-Action-3.2 Require as part of project approval for new projects with regular truck deliveries that such deliveries be made outside the typical peak commute travel periods (e.g., 7:00 am to 9:00 am and 4:00 pm to 6:00 pm) as appropriate.

CI-Action-3.3 Establish and maintain reserved commercial truck loading zones on public streets in appropriate areas such as the Village. Time limits for designated

loading areas may be established to allow public on-street parking in loading zones at other times.

CI-Action-3.4 Require new or redevelopment projects to provide on-site truck loading areas except for areas such as the Village with small commercial lots. Enforcement will be provided by the Sheriff's Department similar to other on-street parking areas in the City.

TRANSIT

Goals

CI.4a Promote local and regional transit as a viable alternative to automobile travel for destinations within and outside the City.

CI.4b Promote the use of non-automobile modes of transportation by improving the capacity, safety, accessibility, and convenience of existing and planned transit, bicycle and pedestrian systems.

Policies

CI-Policy-4.1 Coordinate with the Valley Transportation Authority to increase service range and frequency within the City per VTA's Transit Sustainability Policy. Existing service is illustrated on Figure C-4.

CI-Policy-4.2 Install transit improvements to improve service, increase safety, and maintain traffic flow on streets serving as transit routes.

CI-Policy-4.3 Encourage the public school districts, private schools, recreation groups or other operators to develop a local bus system and to expand ride-sharing activities that will help to reduce school-generated vehicle traffic in neighborhoods and on City streets. Bussing should be one of the first measures considered, along with walking and biking, to reduce school-generated traffic before substantial roadway capacity enhancements are implemented.

CI-Policy-4.4 Investigate the feasibility of a local shuttle service within Saratoga to reduce local traffic volumes on City streets and overall parking demand. The feasibility study shall identify potential routes and funding sources.

Implementation Actions

CI-Action-4.1 Require development projects to dedicate right-of-way for purposes of constructing bus turnouts and/or bus shelter pads on major and minor arterial roadways as appropriate.

CI-Action-4.2 In coordination with the VTA, provide seating and shaded waiting areas at transit stops, with stop locations near entrances of buildings to encourage ridership.

CI-Action-4.3 Coordinate with the Valley Transportation Authority when feasible to provide new fixed route or shuttle service in underserved areas (e.g., Cox Avenue).

CI-Action-4.4 Improve the links of local transportation systems and alternatives such as bicycling and walking with private and public regional transit such as bus transit, light rail, and CalTrain. Bicycle and pedestrian improvements should be funded as Capital Improvement Program projects or through private development projects to further encourage the use of transit.

CI-Action-4.5 Provide information to the public on available alternative transportation choices and routes.

CI-Action-4.6 Encourage local businesses to provide employees with transit passes or other financial incentives to use transit to commute to and from the workplace.

CI-Action-4.7 Recommend potential stop locations for local school bus service and provide minor street and landscaping improvements as appropriate.

CI-Action-4.8 Commission a feasibility study of local shuttle service within Saratoga. Funding for the study should be obtained from federal and state grants/sources and private development projects.

BICYCLE, PEDESTRIAN AND EQUESTRIAN FACILITIES

Goals

CI. 5a Integrate facilities for safe bicycling, walking, and horseback riding into the overall transportation system.

CI.5b Encourage equestrian and pedestrian trails and pathways pursuant to the Open Space and Conservation Element along roadways in areas where safety and aesthetics permit.

Policies

CI-Policy-5.1 Develop and maintain a comprehensive and integrated system of bikeways that promote bicycle riding for commuting and recreation

CI-Policy-5.2 Integrate the City of Saratoga bikeways system with the bikeways system of adjacent communities, where economically feasible.

CI-Policy-5.3 Pursue the expansion and continuation of the multi-use path along the Union Pacific Railroad alignment (Joe's trail) east of Saratoga Avenue and west of Saratoga-Sunnyvale Road that will link the Stevens Creek Recreational Trail in Cupertino with the Los Gatos Creek Trail in Los Gatos.

CI-Policy-5.4 Pursue other potential rights-of-way such as Santa Clara Valley Water District and utility easements for bicycle, pedestrian, and/or equestrian trail development.

CI-Policy-5.5 Provide safe and direct pedestrian routes and bikeways between and through residential areas linking transit centers and important community centers such as local schools facilities and the Village.

CI-Policy-5.6 Improve pedestrian and bicycle access to all public and private schools to enhance safety.

CI-Policy-5.7 Require adherence to the trails policies noted in the Open Space and Conservation Element.

CI-Policy-5.8 Develop a set of practical and realistic transportation demand management (TDM) measures that can be used by employers in the City to reduce the number of single-occupant vehicle trips. These measures would encourage ride-sharing and transit alternatives.

Implementation Actions

CI-Action-5.1 Update and adopt the Bikeways Master Plan to include goals and objectives, a detailed list and map of improvements, a signage program, detailed standards and guidelines, and an implementation program. The Bikeways Master Plan should include the proposed facilities shown on Figure C-5

CI-Action-5.2 Upgrade existing bikeways and designate new facilities where they can be accommodated according to current Valley Transportation Authority (VTA) technical guidelines (prior to adoption of City standards in the Bikeways Master Plan). For example, travel lanes on Fruitvale Avenue north of Burgundy Way should be restriped to provide bicycle lanes with 5-foot minimum widths or pathways.

CI-Action-5.3 Coordinate with the school districts and other entities to develop "Suggested Route to School Plans" for all public and private schools in the

City. Plans shall identify all pedestrian and bicycle facilities, and traffic control devices for residents to determine the most appropriate travel route. The plans shall also identify existing easements for sidewalks.

CI-Action-5.4 Prohibit parking in designated bicycle lanes on all streets unless adequate width is provided according to VTA guidelines or City standards.

CI-Action-5.5 Require the provision of secure bicycle parking as part of all future development projects that include multi-family residential, commercial, industrial, office, and institutional uses. Recommended bicycle parking design standards shall be referenced from the Santa Clara Valley Transportation Agency Bicycle Technical Guide.

CI-Action-5.6 Develop a plan to review and identify additional bicycle parking locations in the Village area.

CI-Action-5.7 Require new development projects and redevelopment projects to dedicate right-of-way and/or provide improvements to accommodate bicycle lanes on streets identified on Figure C-5.

CI-Action-5.8 Require new cul-de-sac streets to accommodate bicycle and pedestrian access between residential areas, public uses, and community areas.

CI-Action-5.9 Encourage non-residential development projects to include amenities such as showers and lockers for employees to further encourage bicycling as an alternative to automobile travel.

CI-Action-5.10 Increase priority of pedestrian safety projects (i.e., pedestrian street crossings, sidewalks or pathways) as part of the Capital Improvement Program.

CI-Action-5.11 Make bikeway improvements a funding priority by: 1) continuing to consider financing bikeway design and construction as part of the City's annual construction and improvement fund; 2) incorporating bikeway improvements as part of the Capital Improvement Program and pavement management efforts; and 3) aggressively pursuing regional funding and other Federal and State sources for new bikeways.

CI-Action-5.12 Update the Open Space and Conservation Element to maintain and expand the Citywide pedestrian path system. The plan should include the proposed trails shown on Figure C-6.

CI-Action-5.13 Assure implementation of the City's trails system by requiring trail dedication, construction, and a method of trail maintenance pursuant to the

Open Space and Conservation Element as part of the subdivision or site approval process.

CI-Action-5.14 Prohibit motorized vehicular traffic on trails, pathways, parks and dedicated open space areas except for maintenance and emergency purposes.

CI-Action-5.15 Include new sidewalk or path construction in the Capital Improvement Program, or as part of any new development, to close gaps in pedestrian facilities on the following arterial roadways: Saratoga-Sunnyvale Road, Saratoga Avenue, Prospect Road, and Cox Avenue (see Figure C-6).

CI-Action-5.16 Include new sidewalk or path construction in the Capital Improvement Program, or as part of any new development or redevelopment, to close gaps on local and collector streets near schools.

CI-Action-5.17 Review the need to install sidewalks and crosswalks on all City streets within one-half mile of all public schools.

CI-Action-5.18 Review the present equestrian zones and assess their consistency with the trails and pathways plan of the circulation element.

CI-Action-5.19 Provide trails, sidewalks or separated pathways along all arterial streets and along some collector streets in areas where needed to provide safe pedestrian access to schools.

AESTHESTIC QUALITIES AND HERITAGE LANES

Goals

CI.6a Protect the aesthetic, historic and remaining rural qualities of Saratoga through street design and landscaping.

CI.6b Strive for aesthetically pleasing views from all roads in Saratoga and the Sphere of Influence.

CI.6c Encourage the preservation of the width and appearance of those roads designated as heritage resources by the City.

Policies

CI-Policy-6.1 Identify areas of critical need for beautification and coordinate plans with revitalization or anticipated development of areas such as City gateways.

CI-Policy-6.2 Adhere to minimum City street standards based on location, terrain,

character of areas and the anticipated function of the roadway.

CI-Policy-6.3 Permit variation of the conventional City street development standards, as described in the City's Subdivision Ordinance, in order to preserve environmentally sensitive roadside features where traffic safety will permit such variations.

CI-Policy-6.4 Identify the function of a street in advance of construction, and apply design criteria to minimize disruption to the area caused by through or heavy vehicle traffic.

CI-Policy-6.5 Encourage the planting of trees and plan the development of landscaped medians along major arterial roadways.

CI-Policy-6.6 Enforce ordinances to prevent the use of non-conforming roadside signs on all roads and highways within the City, whether erected by private individuals or business enterprises.

CI-Policy-6.7 Require increased setbacks of up to 100 feet for structures, walls or fences to be located on lots adjacent to officially designated scenic highways where it is determined by the City that such increased setbacks are necessary to preserve the scenic qualities of the highway.

CI-Policy-6.8 Require increased setbacks and landscaping for commercial and multi-family residential structures on corner lots adjacent to arterial streets, as required, to reduce the visual impact of such structures and to enhance the appearance of important intersections where it is determined by the City that such increased setbacks are necessary to preserve the scenic qualities of the highway.

CI-Policy-6.9 Approve designs for new hillside streets that maximize the use of natural terrain for roadbed construction and minimize “cuts and fills.”

Implementation Actions

CI-Action-6.1 Review Subdivision Ordinance street standards for adequacy and prepare illustrations of corresponding roadway cross-sections

CI-Action-6.1 Require a sight distance analysis to ensure adequate site access for variances from street design standards proposed by the City or by private developers.

CI-Action-6.2 Encourage residents of streets and roads believed to have historic merit to nominate those rights-of-way for designation as heritage lanes through the Heritage Preservation Commission.

CI-Action-6.3 Design commercial areas with pedestrian amenities, shade trees, and on-street parking to create inviting environments.

CI-Action-6.4 The designation of Heritage Lane shall not preclude City action necessary to guarantee safe access for emergency vehicles while maintaining the integrity of the existing heritage lane.

PARKING SUPPLY AND MANAGEMENT

Goals

CI.7a Provide adequate parking for non-residential uses to minimize intrusion into adjacent neighborhoods.

CI.7b Provide on-street parking spaces in commercial areas that provide direct access to abutting properties while requiring off-street public and private parking lots to serve the majority of the demand.

Policies

CI-Policy-7.1 Review on-street parking policies and utilization in the Village area

CI-Policy-7.2 Designate curb parking in the Village area for short-term use by those visiting businesses and public facilities.

CI-Policy-7.3 Encourage the location of parking lots behind buildings to emphasize the buildings' physical and visual connections to the street and to maximize pedestrian access and safety.

CI-Policy-7.4 Encourage the use of carpools and vanpools by providing preferential spaces as appropriate.

CI-Policy-7.5 Allow reduced parking supplies for parcels, where appropriate, in order to utilize the area-wide parking supply.

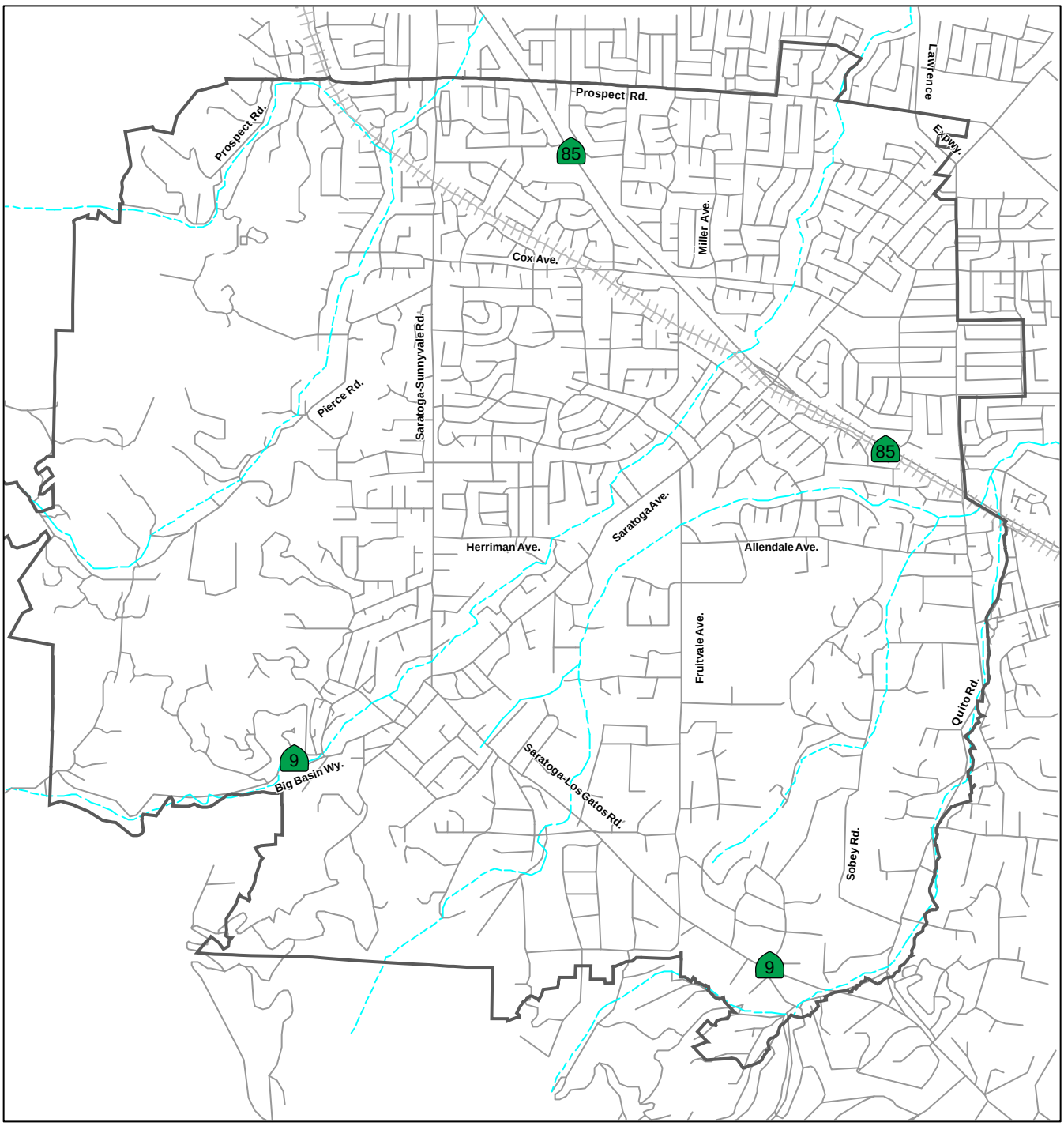
Implementation Actions

CI-Action-7.1 Enforce parking time limits and zones.

CI-Action-7.2 Establish time limits for on-street parking in commercial areas.

CI-Action-7.3 Adopt design standards for parking stalls, aisles and driveways for on-street and off-street facilities.

CI-Action-7.4 Review parking demand and proposed supplies for each development project to ensure maximum use of proposed off-street lots.

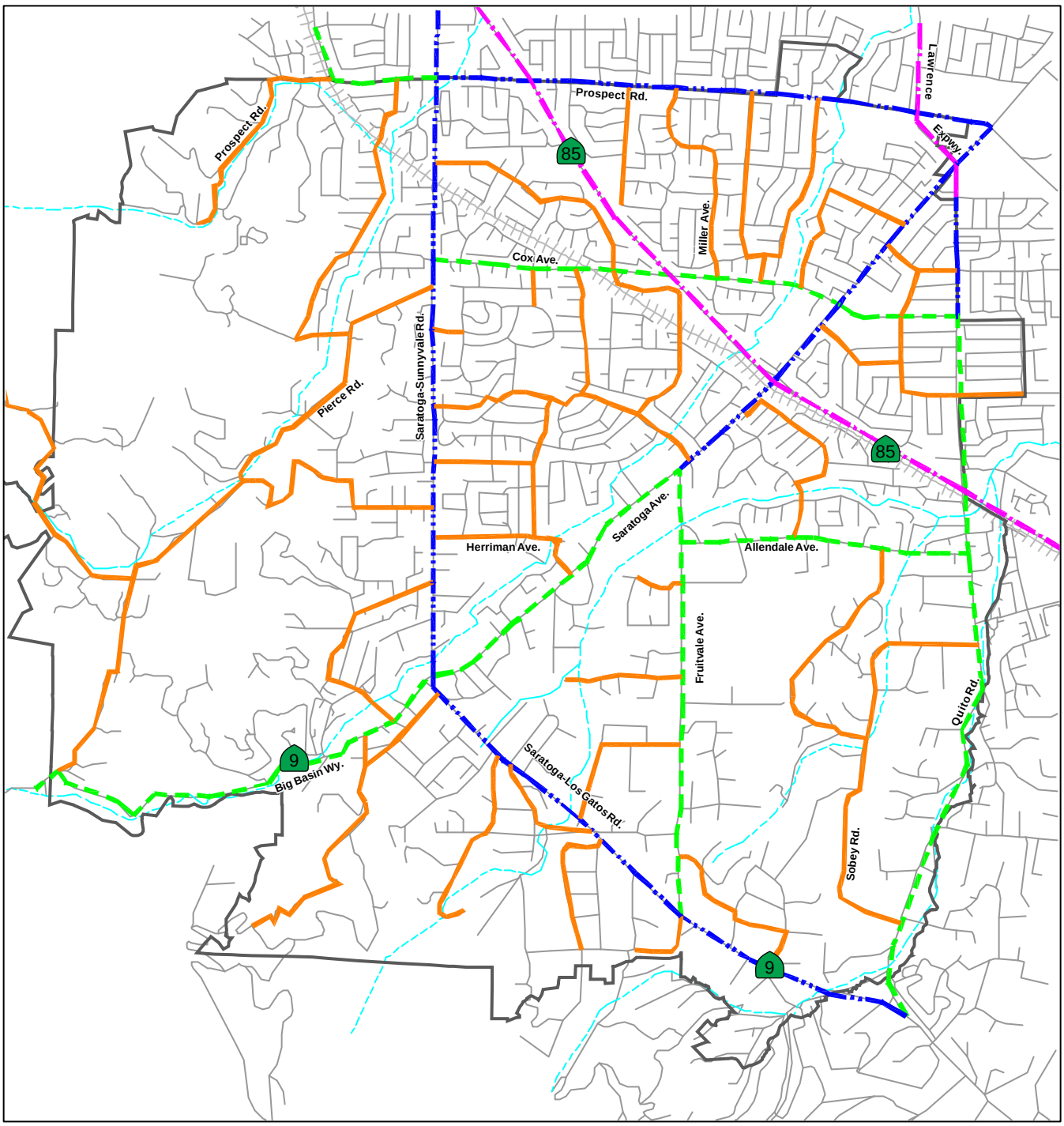


Legend:

- Saratoga City Boundary
- Roads
- Waterways

N

Figure C-1 Revised May 2010	Existing Roadways

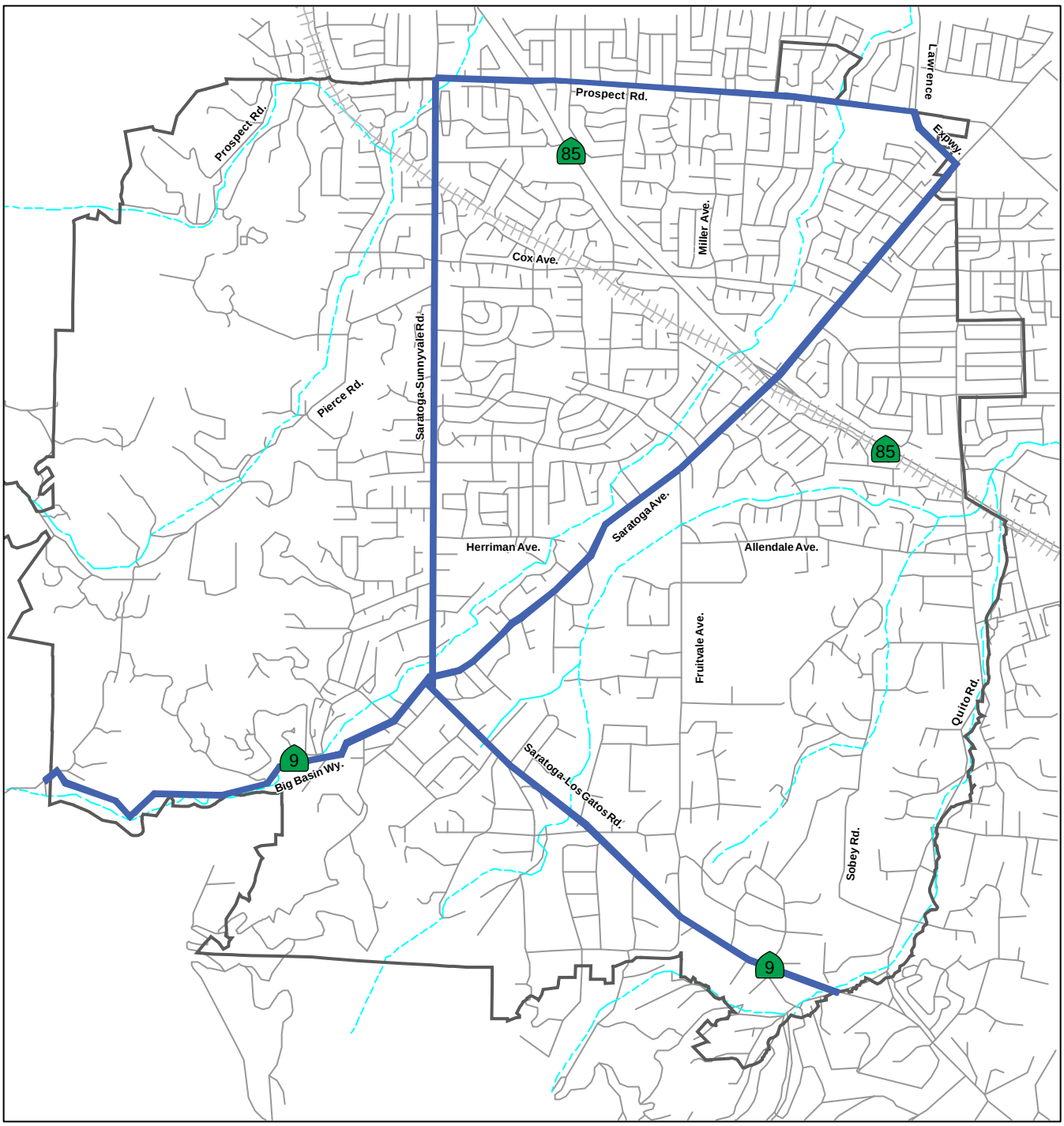


Legend:

- Interstate Freeway (Not Applicable)
- Other Freeway or Expressway
- Major Arterial
- Minor Arterial
- Collector

N

Figure C-2 Revised May 2010	Roadway Classifications	

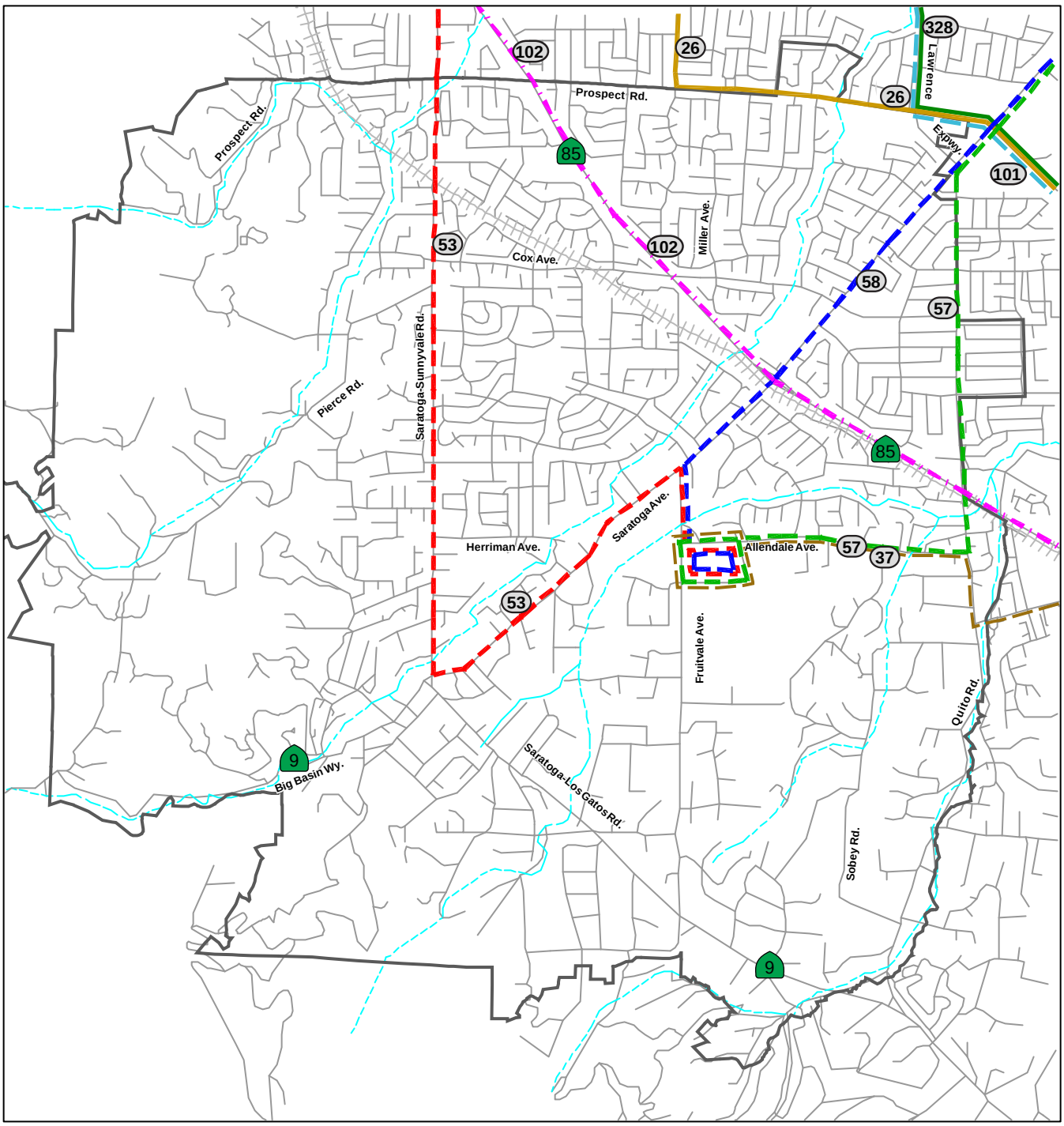


Legend:

Truck Route

N

Figure C-3 Revised May 2010	Truck Routes	



Legend:

- Route 26
- Route 53
- Route 57
- Route 58
- Route 53
- Route 101
- Route 328
- Express Route 102 (No Stops in Saratoga)
- XX Route Numbers

N

Figure C-4
Revised May 2010

Existing Transit Service (Effective January 11, 2010)

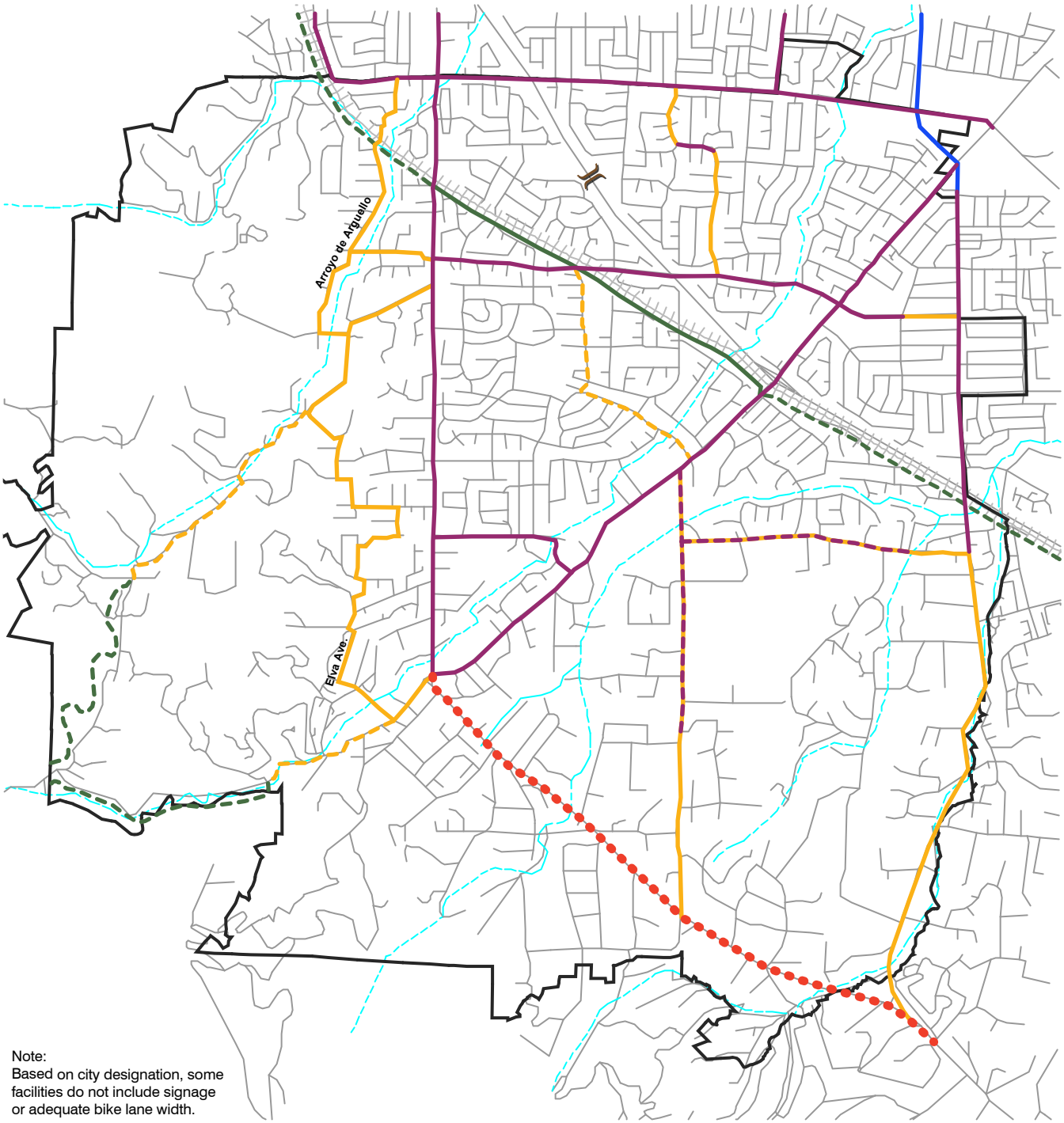
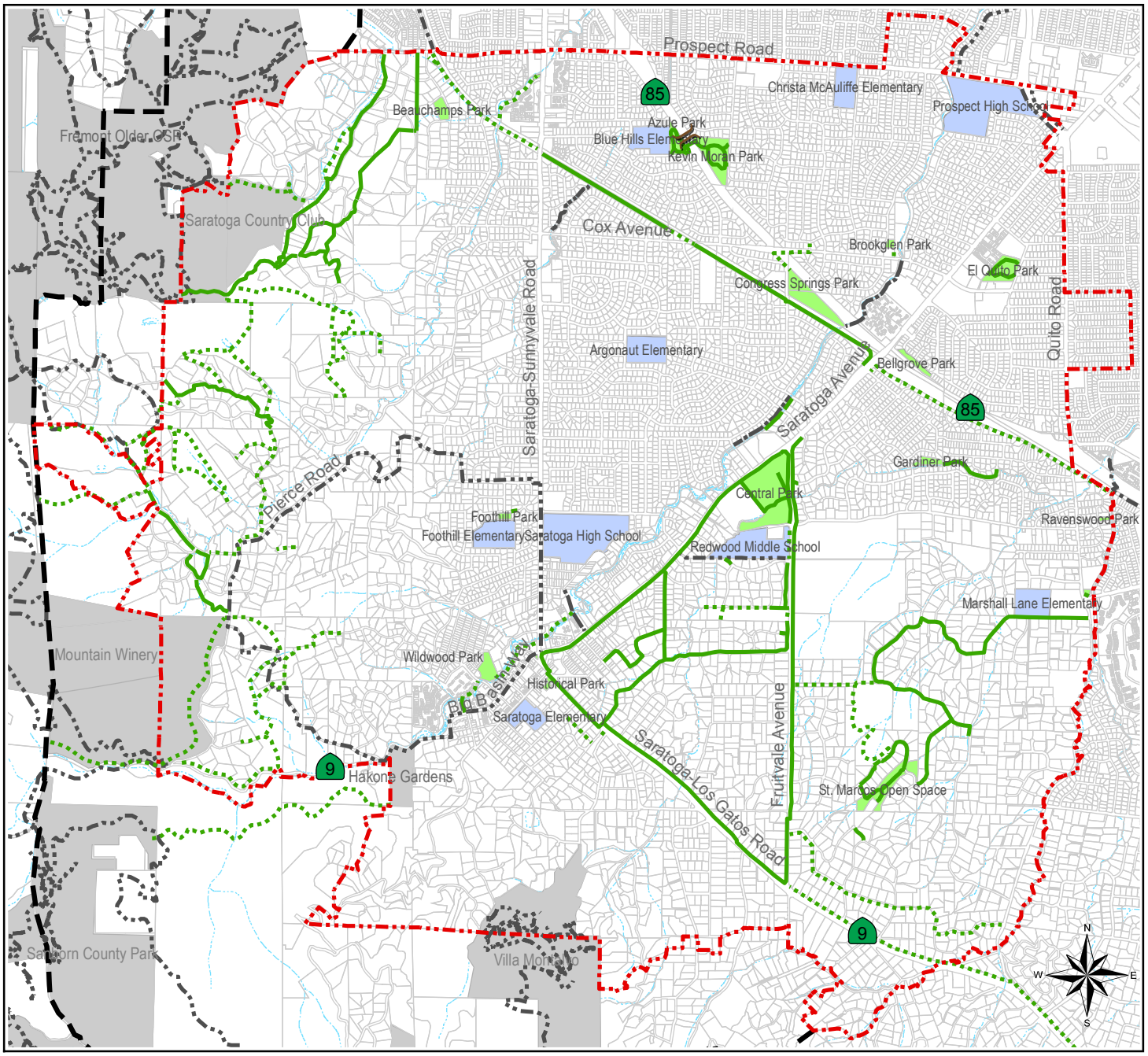


Figure C-5
Revised August 2010

Existing/Planned Bicycle Facilities



0 1,500 3,000 6,000 Feet

Legend:

- Existing City Trails
- Proposed City Trails
- Other Existing Public Trails
- Other Proposed Public Trails
- City Limits
- Sphere of influence
- Across Barrier Connections
- Saratoga Parks
- Other Park Resources
- Public Schools

N

Figure C-6
Revised August 2010

Existing and Proposed Trails

APPENDIX A

Table A-1: Roadway Segment Level of Service Thresholds and Summary

General Plan ID	Roadway	Segment	Level of Service Thresholds					Number of Lanes	Functional Class	Existing (2010) Volume		Future (2030) Volume	
			A	B	C	D	E			Count	LOS	Count	LOS
1	Prospect Road	Saratoga-Sunnyvale Road to Miller Avenue	0	0	19,200	35,400	37,400	4	Arterial	16,300	C	20,700	D
2	Prospect Road	Miller Avenue to Lawrence Expressway	0	0	19,200	35,400	37,400	4	Arterial	18,300	C	23,300	D
3	Saratoga-Sunnyvale Road	Union Pacific Railroad	0	0	19,200	35,400	37,400	4	Arterial	26,100	D	33,200	D
4	Saratoga-Sunnyvale Road	Verde Vista Lane to Blauer Drive	0	0	19,200	35,400	37,400	4	Arterial	17,500	C	22,300	D
5	Pierce Road	Surrey Lane to Saratoga-Sunnyvale Road	2,600	5,200	7,800	11,000	12,900	2	Collector	3,000	B	3,800	B
6	Cox Avenue	RR Tracks to Saratoga Avenue	0	0	9,100	16,700	17,700	2	Arterial	10,500	D	13,300	D
7	Saratoga Avenue	Cox Avenue to Northerly City Limit	0	0	19,200	35,400	37,400	4	Arterial	31,900	D	40,500	F
8	Saratoga Avenue	Vineyard Lane to Cox Avenue	0	0	19,200	35,400	37,400	4	Arterial	36,900	E	46,900	F
9	Saratoga Avenue	Fruitvale Avenue to Dagmar Drive	0	0	19,200	35,400	37,400	4	Arterial	32,800	D	41,700	F
10	Saratoga Avenue	Westerly Shadow Oaks Way to Fruitvale Avenue	0	0	9,100	16,700	17,700	2	Arterial	16,600	D	21,000	F
11	Big Basin Way	Saratoga-Sunnyvale Road to Pierce Road	0	0	9,100	16,700	17,700	2	Arterial	6,300	C	8,000	C
12	Fruitvale Avenue	Allendale Avenue to Saratoga Avenue	0	0	19,200	35,400	37,400	4	Arterial	19,900	D	25,300	D
13	Fruitvale Avenue	Burgundy Way to Allendale Avenue	0	0	19,200	35,400	37,400	4	Arterial	8,500	C	10,800	C
14	Allendale Avenue	Portos Court to Chester Avenue	0	0	9,100	16,700	17,700	2	Arterial	7,600	C	9,700	D
15	Quito Road	Yorkton Way to Baylor Avenue	0	0	9,100	16,700	17,700	2	Arterial	17,800	F	22,600	F
16	Quito Road	Pollard Road to Allendale Avenue	0	0	9,100	16,700	17,700	2	Arterial	13,800	D	17,500	E
17	Saratoga-Los Gatos Road	Saratoga Avenue to Fruitvale Avenue	0	0	9,100	16,700	17,700	2	Arterial	13,000	D	16,500	D
18	Saratoga-Los Gatos Road	Fruitvale Avenue to Quito Road	0	0	19,200	35,400	37,400	4	Arterial	16,100	C	20,400	D