4.12 TRANSPORTATION AND CIRCULATION

4.12.1 Issues

Implementation of the DSP has the potential to change traffic volumes and flow characteristics within the Downtown and surrounding area. The DSP also has the potential to affect parking and the public transit system currently serving Cotati. This section of the EIR is based on a traffic impact analysis prepared by Parisi Associates. Technical data from the traffic model output is on file with the City of Cotati.

Setting

This section presents information about the existing roadway system and its current operations, existing parking conditions, and a description of the current public transit system and bicycle/pedestrian facilities.

Existing Street Network

The study area roadway system and intersections are shown in Figure 4.12-1. Eight key roadways are described below.

Old Redwood Highway (north) is a five-lane, major arterial street from East Cotati Avenue to the northbound US 101 ramp at Commerce Boulevard.

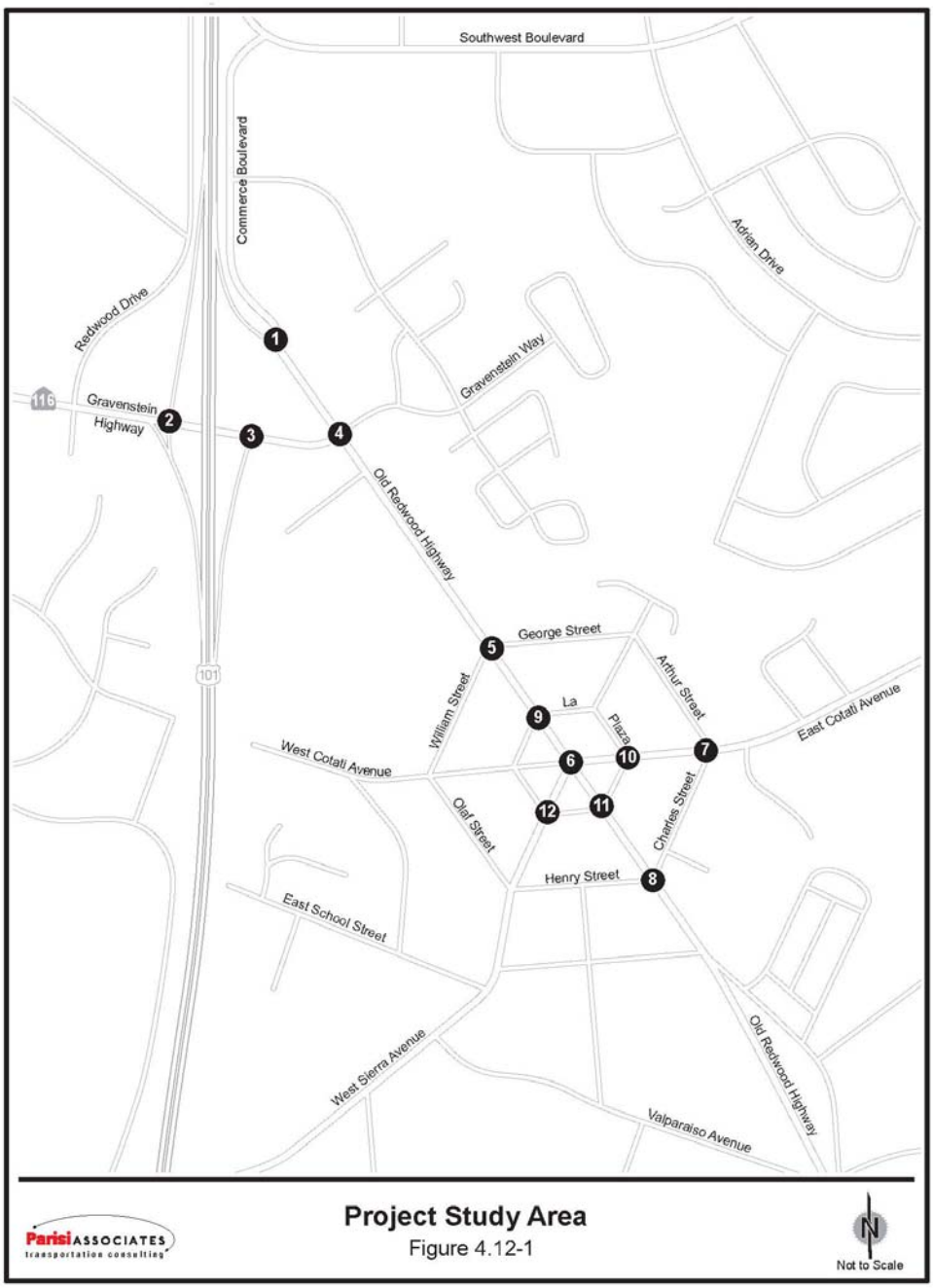
Old Redwood Highway (south) is a two-lane roadway extending from East Cotati Avenue through the two block Historic Core to the southern City boundary and beyond. This roadway serves as an alternate route to US 101 between Cotati and Petaluma.

Gravenstein Highway is a four-lane major arterial street starting at Old Redwood Highway and extending to the west. The roadway serves traffic exiting US 101 from the north and south and provides access to southbound US 101. West of US 101, the roadway is also known as State Highway 116 and serves the communities of Sebastopol, Guerneville, and Jenner, where it terminates at State Highway 1.

Commerce Boulevard is a two-lane collector street connecting Cotati with Rohnert Park.

West Sierra Avenue is a two-lane connector street from Old Redwood Highway to west of US 101. There are connections to US 101 for drivers going southbound and exiting northbound. East of Old Redwood Highway, the street connects with East Cotati Avenue and serves traffic to eastern Cotati and Rohnert Park, as well as Sonoma State University.

East Cotati Avenue varies as a two-lane and four-lane minor arterial street between Old Redwood Highway and Petaluma Hill Road. The street serves the eastern part of Cotati and Rohnert Park, as well as Sonoma State University. West of Old Redwood Highway, it connects with West Sierra Avenue, which provides a connector to US 101.


Southwest Boulevard
Commerce Boulevard
Adrian Drive
Redwood Drive
Gravenstein Way
116
Gravenstein Highway
Old Redwood Highway
George Street
101
William Street
Arthur Street
La Plaza
East Cotati Avenue
West Cotati Avenue
Olof Street
Charles Street
Henry Street
East School Street
West Sierra Avenue
Valparaiso Avenue
Old Redwood Highway
1
2
3
4
5
6
7
8
9
10
11
12
Project Study Area
Figure 4.12-1
Parisi ASSOCIATES transportation consulting
N
Not to Scale

La Plaza is generally a two-lane collector street that surrounds The Plaza. The section between West Sierra Avenue and Old Redwood Highway (south) is one-way. The Fire Station is on the segment between East Cotati Avenue and Old Redwood Highway (north).

Charles Avenue is a short, two-lane street between East Cotati Avenue and Old Redwood Road, which commuters use as a cut-through route.

Existing Level of Service

The City uses level of service (LOS) performance criteria to define operational characteristics of the roadway system; LOS is based on peak hour intersection volumes in relation to intersection capacity. Figure 4.12-2 shows existing traffic volumes (2007). Table 4.12-1 provides a qualitative description of the various levels of service used in defining intersection performance.

Traffic is generally flowing fairly well under existing conditions. As shown in Table 4.12-2, nine of the 12 intersections are operating at LOS D or better during the AM and PM peak hour commute periods.[1] The following intersections, all of which are unsignalized, are operating with congested conditions of LOS E or greater:

- Old Redwood Highway/William and George Streets during the PM peak hour with a delay of 44.2 seconds and a LOS E;
- Old Redwood Highway/Henry and Charles Streets during the PM peak hour with a delay of 60.4 seconds and a LOS F;
- East Cotati Avenue/La Plaza during the PM peak hour with a delay over 100 seconds and a LOS F.

Existing Parking Conditions

On-street parking is currently not provided along Old Redwood Highway north of La Plaza, but is provided in the historic core segment of Old Redwood south of La Plaza. Approximately 50 on-street spaces are provided. In addition, about 85 off-street parking spaces are available in the historic core area. In La Plaza, there exist approximately 110 on-street parking spaces and about 108 off-street spaces.

Existing Public Transportation

The DSP area is served by two transit providers: Sonoma County Transit (SCT) and Golden Gate Transit (GGT). SCT Routes 10, 48, and 50 run through Downtown. The Hub, near Old Redwood Highway and West Sierra/East Cotati Avenues, is the passenger loading point for Routes 10 and 48. Route 10 circulates through Rohnert Park, Cotati, and Sonoma State University on 45 minute headways. Route 10 travels through Rohnert Park, Cotati, and Petaluma 10 times a day with varying headways. Route 50 is a commuter route from Sebastopol to Cotati to Rohnert Park to connect with GGT Route 72. Route 50 runs twice in the morning and evening. GGT Route 72 provides service connecting downtown San Francisco to Cotati, Rohnert Park, and Santa Rosa. The Cotati connections are at The Hub and a Park & Ride lot on Old Redwood Highway and St. Joseph Way with two morning and evening stops. The existing transit routes are shown on Figure 4.12-2.

[1] Table 4.12-2 also shows LOS for the impact analysis, which is described in Section 4.12.6.

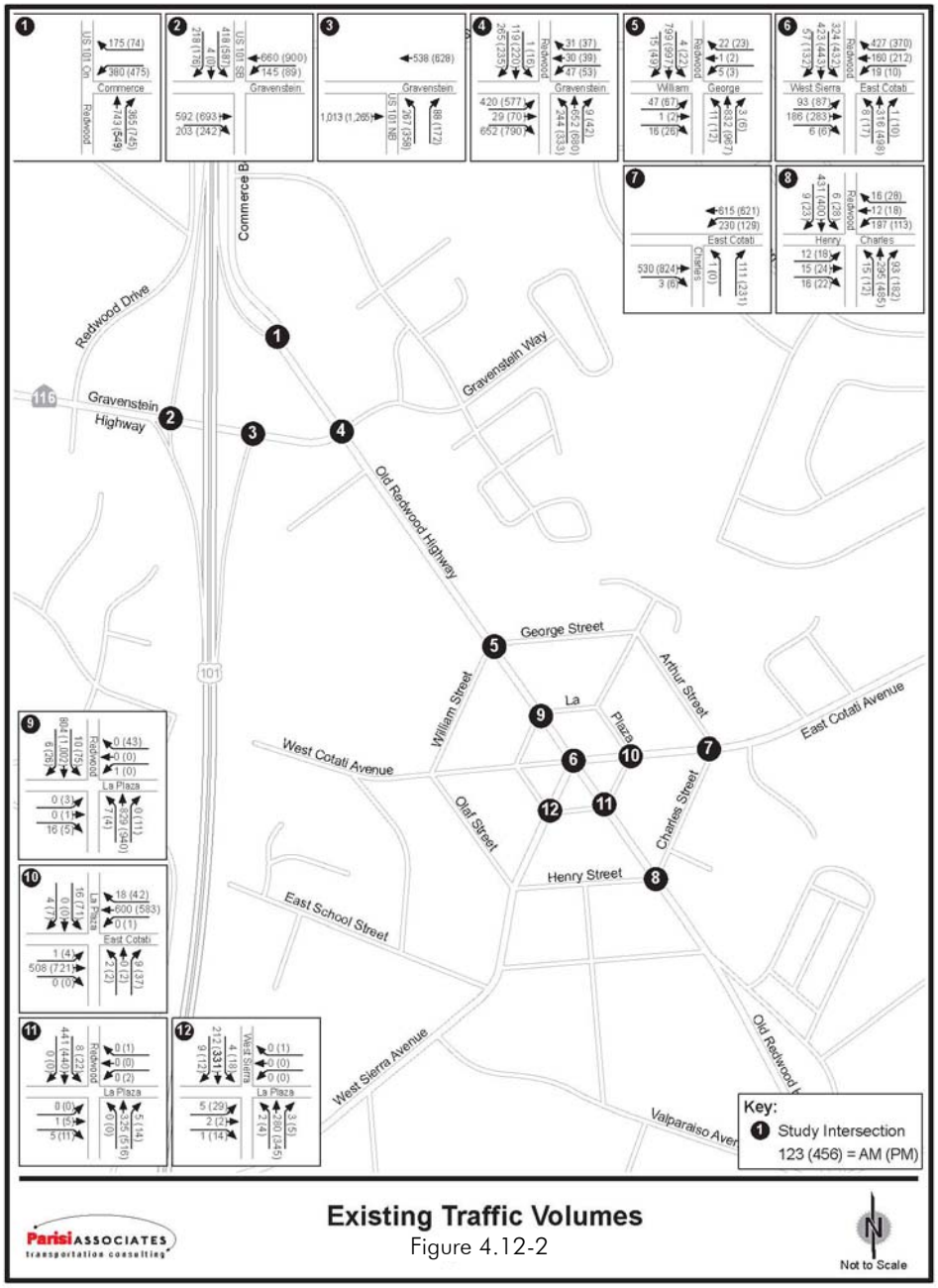

Redwood Drive
Commerce Blvd
Gravenstein Highway
Gravenstein Way
Old Redwood Highway
George Street
William Street
Arthur Street
La Plaza
East Cotati Avenue
West Cotati Avenue
Olaf Street
Charles Street
Henry Street
East School Street
West Sierra Avenue
Valparaiso Ave
Old Redwood
101
116
Key:
1 Study Intersection
123 (456) = AM (PM)
Existing Traffic Volumes
Figure 4.12-2
Parisi ASSOCIATES
transportation consulting
N
Not to Scale

Table 4.12-1. Intersection Level of Service Descriptions			
LOS	**Description**	**Delay per Vehicle Signal (sec.)**	**Delay per Vehicle Unsignalized (sec.)**
A	LOS A describes operations with low control delay, up to 10 seconds per vehicle. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.	< 10	< 10
B	LOS B describes with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than the LOS A, causing higher levels of delay.	10 - 20	10 - 15
C	LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	20 - 35	15 - 25
D	LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35 - 55	25 - 35
E	LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are common.	55 - 80	35 - 50
F	LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high V/C ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.	> 80	> 50
Source: Highway Capacity Manual 2000, Transportation Research Board, National Research Council			

Table 4.12-2. Vehicle Delay and LOS

No.	Intersection	Peak Hour	Existing	No Project 2025			Specific Plan		
				Unmitigated	Mitigated		Unmitigated	Mitigated	
			Delay LOS	Delay LOS	Delay LOS	Mitigation	Delay LOS	Delay LOS	Mitigation
1	Old Redwood Highway	AM	13.4 B	21.5 C			26.4 C		
	Commerce Boulevard	PM	10.6 A	31.0 C			25.7 C		
2	Gravenstein Highway	AM	17.4 B	15.3 B			15.5 B		
	US 101 SB Ramps	PM	18.7 B	21.0 C			18.3 B		
3	Gravenstein Highway	AM	8.5 A	12.8 B			22.1 C		
	US 101 NB Ramps	PM	10.6 B	12.1 B			15.9 B		
4	Gravenstein Highway	AM	20.8 C	19.9 B			32.7 C		
	Old Redwood Highway	PM	28.5 C	37.4 D			33.8 C		
5	Old Redwood Highway	AM	24.3* C	>100* F	4.2 A	Add signal	>100* F	8.0 A	Add signal
	William/George Street	PM	68.7* F	>100* F	9.2 A		>100* F	10.0 B	
6	Old Redwood Highway	AM	24.4 C	24.6 C	26.9 C	Add through	n/a		
	E. Cotati Avenue	PM	47.8 D	72.0 E	40.3 D	traffic lanes	n/a		
7	E. Cotati Avenue	AM	13.9** B	13.9** B			>100** F	13.9** B	Prohibit peak
	Charles Street	PM	41** E	32.1** D			>100** F	32.1** D	hour left turns
8	Old Redwood Highway	AM	21.0* C	68.1* F	13.2 B	Add signal	58.8* F	12.8 B	Add signal
	Henry/Charles Street	PM	61.7* F	>100* F	8.0 A		>100* F	15.1 B	
9	Old Redwood Highway North	AM	11.6** A	13.4** A			19.1 B		
	La Plaza	PM	12.9** A	17.7* A			40.1 D		
10	E. Cotati Avenue	AM	35.9** A	40.7** E	3.2 A	Add signal	14.6 B		
	La Plaza	PM	13.9** B	>100** F	20.5 C		37.0 D		
11	Old Redwood Highway South	AM	12.8** B	13.7** B			17.2 B		
	La Plaza	PM	16.6** B	28.7** D			5.3 A		
12	W. Sierra Avenue	AM	13.1** B	16.5** C			8.0 A		
	La Plaza	PM	17.3** C	27.1** D			16.3 B		

Notes: * means that the intersection has all-way stop sign control and that the delay shown is the average delay for all movements
** means that the intersection has two-way stop sign control and the delay shown is the highest delay for a movement with over five vehicles per hour.

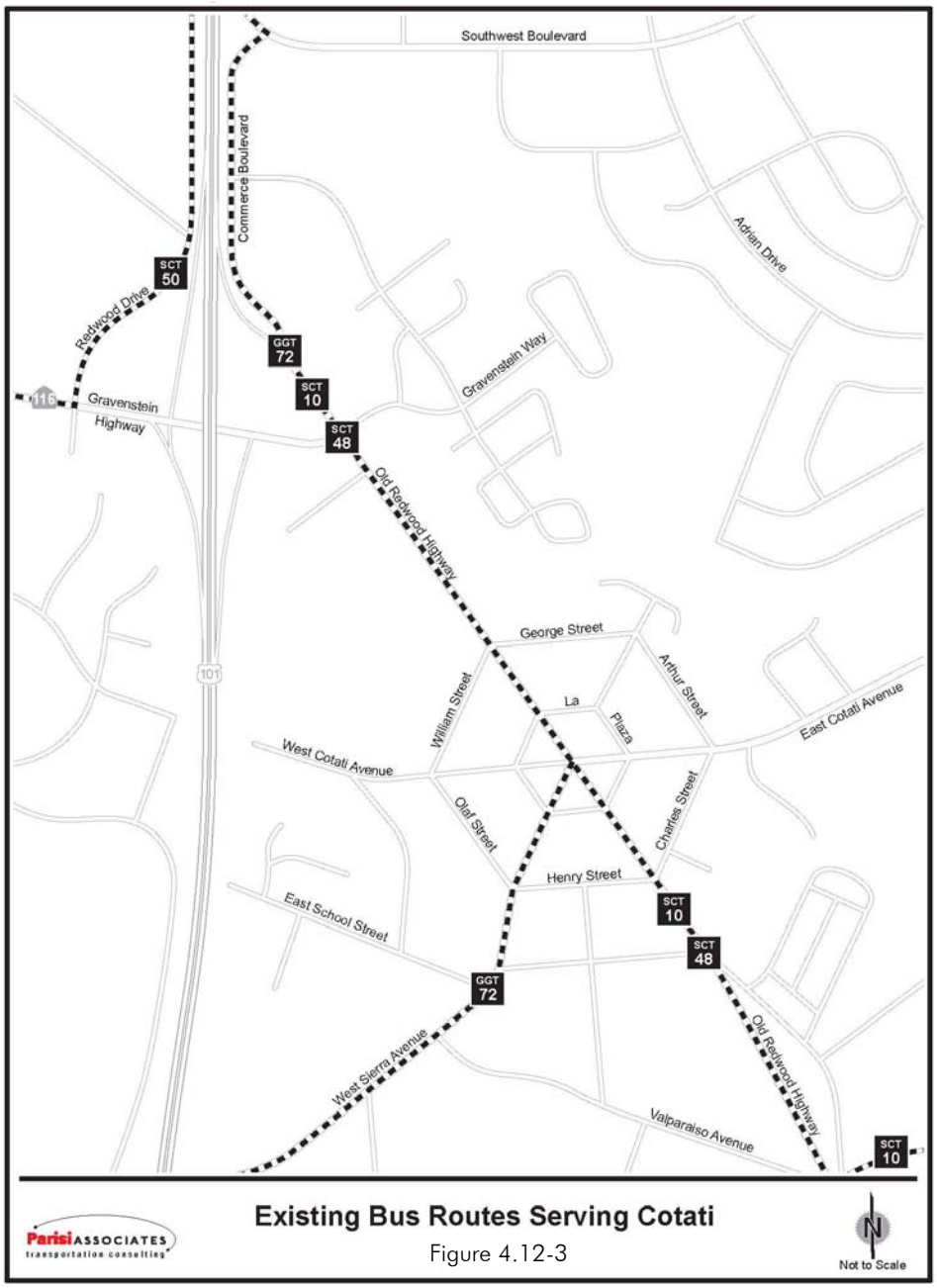


Figure 4.12-3

Existing Pedestrian and Bicycle Circulation

Within the study area, the existing pedestrian and bicycle system is discontinuous and elements of the system are substandard. Discontinuous sidewalks, interrupted by long driveway curb cuts, exist along Old Redwood Highway north of George and William Streets. Four-foot wide bicycle lanes also are present along this segment of roadway; however, five-foot wide bicycle lanes are the standard when adjacent to curbs. Sidewalks, but no bicycle lanes, exist along Old Redwood Highway south of La Plaza, and along East Cotati Avenue. Sidewalks are present along West Sierra Avenue, as well as four-foot wide bicycle lanes.

4.12.3 Regulatory Setting

Cotati General Plan Circulation Element

The Circulation Element of the General Plan is a comprehensive plan for vehicular and non-vehicular circulation and transportation within the City and the planning area. The Circulation Element of the General Plan is required by Government Code Section No. 65302(b), which dictates that:

> *…the General Plan shall have a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other public local utilities and facilities, all correlated with the land use element of the General Plan.*

The following General Plan policies relate to the area of the specific plan. These were developed in contemplation of the specific plan and as a result, the DSP is consistent with them.

1.4.14 The area along both sides of Old Redwood Highway, north of La Plaza and south of the Highway 101 northbound on-ramp, shall be developed in an integrated manner assuring a vibrant, mixed-use and pedestrian-oriented extension of the downtown.

2.1.6 Encourage the consolidation of Golden Gate Transit Service and Sonoma County Transit bus shelters at La Plaza to better serve the bus traveling populations.

2.2.1 Establish and maintain continuous clearly marked identifiable bicycle routes and facilities on Old Redwood Highway, East Cotati Avenue, Gravenstein Highway and West Sierra Avenue.

2.2.9 Enhance the safety of pedestrian crossings in the Hub area while ensuring a delightful downtown experience.

2.3.3 Encourage the use of multi-purpose parking lots that serve both multi-family residential and commercial uses.

2.4.1 Seek alternatives to traditional traffic solutions; these measures could include traffic signals, street widening and stop signs. Traffic calming measures, which decrease environmental impacts, slow vehicular speed and encourage pedestrian and bicycle modes of transportation, shall be given the highest priority above the traffic improvements recommended below.

Draft DSP Policies related to Transportation and Circulation

The DSP proposes a number of goals, objectives and policies which relate to roadways, intersections, bikeways and pedestrian access.

Goal 3 Improve the walking and bicycling system through downtown Cotati as well as the interconnections between Cotati and the region.

Goal 4 Promote a street system that is safe for all modes of transportation within a successful commercial mixed-use environment.

Plan wide policies:

SP2 Ensure that streets are designed to be multi-modal: Make Great Streets.

SP7 Ensure sufficient parking for all uses within the plan area with emphasis upon an appropriate combination of on- and off-street parking: Get the Parking Right.

Objectives by District

Commerce Avenue

CA-1 Improve circulation and provide civic identity at intersection of Gravenstein and Old Redwood Highway.

CA-2 Define and unify streetscape in support of highway retail.

Northern Gateway

NG-5 Provide pedestrian-oriented retail in mixed-use buildings.

NG-6 Require 'park-once' system of shared parking.

La Plaza Park

LP-4 Accommodate community-wide circulation while maintaining the village-scale context of the La Plaza Park area.

LP-5 Enhance bicycle and pedestrian circulation and access.

LP-7 Enhance public parking.

Historic Core

HC-2 Enhance public parking.

HC-3 Enhance bicycle and pedestrian circulation and access.

Circulation objectives:

CSS-1 The network should accommodate pedestrians, bicycles, transit, freight and motor vehicles with the allocation of right-of-way on individual streets determined through CSS.

CSS-2 The larger network, including key thoroughfares should provide safe, continuous and well-designed multi-modal facilities that capitalize on development patterns and densities that make walking, transit and bicycle travel efficient and enjoyable.

CSS-3 Thoroughfare design should complement urban buildings, public spaces and landscape, as well as support the human and economic activities associated with adjacent and surrounding land uses.

CSS-4 Safety should be achieved through thoughtful consideration of user's needs and capabilities, through design consistency to meet user expectations and selection of appropriate speed and design elements.

CSS-5 Thoroughfare design should serve the activities generated by the adjacent context in terms of mobility, safety, access and place-making functions in the right-of-way. Context sensitivity sometimes requires that the design of the thoroughfare change as it passes through areas where a change in character is desired.

CSS-6 System-wide transportation capacity should be achieved using a high level of network connectivity and appropriately spaced and properly sized thoroughfares, along with capacity offered by multiple travel modes, rather by increasing the capacity of individual thoroughfares.

Connectivity objectives:

C-1 Dispersal, rather than concentration, of traffic and access to produce safer streets and multiple routes to reach destinations.

C-2 A hierarchical network of context-sensitive streets to produce the fundamental variety of context that generates substantial opportunities for incorporating transit and realizing varied building types, open space types and streetscapes.

C-3 Applying 'context sensitive' design throughout the block and street network .

C-4 Configuring street sections to the desired context of the particular segments through which they pass.

Block and Street Network Objectives.

BSN-1 Consist of streets that front and contextually respond to the various blocks throughout the plan area.

BSN-2 Be hierarchical, composed of blocks sized for pedestrians defined by various street types, with their widths calibrated to the building types and uses that each is meant to service.

BSN-3 Use the minimum width practical for each thoroughfare.

BSN-4 Be interconnected, providing for a variety of alternative paths of movement throughout the plan area.

BSN-5 Include carefully calibrated standards for each thoroughfare to establish the individual sense of enclosure and contribute to the character and place within each neighborhood and the overall plan.

BSN-6 Feature strategically located shifts in the alignment of certain streets that coincide with the particular role and speed of the associated streets. This effectively calms traffic without the need for post-construction interventions and it enhances the sense of place through unique positioning of buildings in these situations.

BSN-7 Be varied in design, as individual thoroughfares are incorporated into specific zones within the plan, and assigned character according to intensity and use.

Street Design Objectives

SD-1 Limit lane widths in order to calm traffic.

SD-2 On-street parking to maximize frontage/mobility options.

SD-3 Tight curb radii to calm traffic and improve walkability.

SD-4 Narrow street crossings to calm traffic and improve walkability.

SD-5 Ample sidewalks and generous streetscapes to maximize appeal and usefulness.

Street Network Objectives

<u>The Hexagon and La Plaza Park</u>

SN-1 Reconfigure park within the 1892 hexagon to become a singular, cohesive place that serves the dual purpose of place-making and resolving community-wide circulation.

SN-2 Replace the existing 4-way intersection that bisects the park and dilutes the edges of the historic hexagon with evenly spaced intersections at the outer edge.

SN-3 Define the reconfigured park by one-way, 2-lane streets with on-street parking and a speed of 15 miles per hour at the perimeter of the reconfigured park.

SN-4 Improve overall circulation and the relationship between the inside perimeter of the hexagon, the new park, and the adjacent streets.

<u>Old Redwood Highway (South of La Plaza Park)</u>

SN-5 Maintain on-street parking and slow traffic speed.

SN-7 Install intersection-control at the intersection of Henry/Charles.

East Cotati Avenue Entry

SN-8 Improve community-wide circulation while making this roadway safer by creating a community focus at La Plaza Park.

SN-9 Make this street more useable and friendly to pedestrians/cyclists.

West Sierra Avenue Entry

SN-11 Make this street more useable and friendly to pedestrians/cyclists.

Northern Gateway

New blocks and streets complete Downtown's circulation system, contributing to a more interconnected street network.

Old Redwood Highway (North of La Plaza Park)

SN-12 Transform this major street into a memorable Downtown boulevard with landscaped median, wide/active sidewalks, on-street parking, and bike lanes.

SN-13 Utilize a design speed of 25 m.p.h. to identify the corresponding details.

Intersection of Old Redwood Highway at Gravenstein Highway

SN-14 Improve traffic flow for this existing 4-way intersection while contributing to the significantly enhanced life and activity along the frontage of Old Redwood Highway.

Intersection at William/George

SN-15 Install intersection-control for east-west access while accommodating the larger volumes on Old Redwood Highway.

Commerce Avenue

SN-16 Unify and spatially define the streetscape and add continuous sidewalks and bike lanes.

Bikeway Improvements

SN-17 Accommodate the full range of cyclists to and throughout Downtown. As appropriate, modify existing conditions to better meet the needs of cyclists and their varying skill levels.

Sidewalk Improvements

SN-18 As appropriate, effectively complete the sidewalk system throughout Downtown ensuring accessibility for everyone.

Parking Objectives

P-1 Strategically disperse parking to serve retail. Always available, convenient, on-street customer parking is of primary importance for retail to succeed. Short-term parking that is strictly enforced creates rapid turnover and gives the motorist a reason to stop on a whim, adding to the retailers' potential profits. Business owners and their employees must therefore relinquish the best spaces to customers at the periphery, where spaces can be less expensively provided.

P-2 Make better use of existing parking areas and vacant lots. Existing surface parking areas and vacant lots should be seen as able to address two fundamental needs: in the short-term, these lots will provide additional parking for the district. In the long

term, these parking lots can be improved to provide for additional parking through parking garages and/or mixed-use structures.

P-3 Ensure shared parking. Public parking should be provided in strategically placed and publicly available lots and/or garages. Parking should not be dedicated to a single building or use but rather shared between nearby uses. The District should be able to allocate parking revenues for such improvements in the plan area as parking construction and operations, streetscape improvements, transit, bicycle and pedestrian improvements, transportation demand management programs, security, street cleaning, and marketing.

P-4 Implement transportation demand management strategies. Providing employees with financial incentives to leave their cars at home can be substantially cheaper than the typical $125 per month cost to build and operate a new parking structure space. More than 700 employees (1) can be expected to work in the future District at build-out, so that demand management strategies serving them (and to some extent, shoppers and residents as well) can create substantial savings on parking construction costs. Here as well, the Parking Improvement District could play an important role in implementing, funding and operating programs that partner with employers to provide incentives to employees to not always use their cars. Such an approach could provide additional buying power and result in economies of scale for the many small employers in the district.

P-5 Consider building public parking garages to augment off-street lots and on-street parking. In the short to medium-term, surface parking, on street parking, and transportation demand management will be able to provide for the parking needs of downtown. For the long term, however, more parking may be needed. The most effective way to realize substantial amounts of parking is through garages. A combination of funding sources will be critical to the City's ability to construct garages.

Transit Objectives

T-1 Promote Transit-Oriented Housing - As discussed later in this Specific Plan, the popularity of people wanting to live near transit will be on the rise for the foreseeable future. One of the best ways to maximize transit and its numerous benefits is to provide housing that caters to those wanting the type of lifestyle of living in a Downtown with viable transit service and the option of not having to own an automobile for daily needs. For Downtown Cotati, this is tempered by the absence of immediately accessible rail transit. Providing a population in direct proximity to the existing and planned bus stops works in much the same way and provides real benefit to the resident.

T-2 Increase Transit Service - Maximize the choices and routes for people to use throughout the plan area. The commitment toward providing maximum access to and from Downtown while minimizing the need to provide parking for everyone in the region is fundamental to the revitalization effort. As the Downtown creates more housing and the retail/office/restaurant space increases, the viability of increased transit service is further enhanced. Consideration should be given to the development of a transit facility in the Northern Gateway area of the plan.

Existing bus stops are located on West Sierra Avenue near the 101 and in the southern portion of La Plaza Park near Old Redwood Highway. This Plan envisions at least two more bus stops: in the Northern Gateway and further north at the end of Commerce Avenue.

Pedestrian and Cyclist Objectives

P/C-1 Construct *complete streets* that balance all modes of travel.

P/C-2 Pedestrian access should occur on both sides of streets as practical.

P/C-3 Pursue smaller curb radii to enable pedestrian and cyclist movement and access.

Open Space Objectives

OS-4 Streetscapes as a major component of thoroughfares shall help spatially define the street space as a safe environment for automobiles, cyclists and pedestrians while adding beauty and shade to the street.

4.12.4 Methodology

The relative impacts of traffic generated by the proposed project during the AM and PM peak travel periods were evaluated for 12 study intersections for existing, No Project year 2025, and DSP year 2025 conditions. The analysis compares the intersection LOS for each scenario for the weekday AM and PM peak hours. The results of the No Project 2025 LOS analysis are presented at the end of this section.

Intersection LOS analysis was conducted using Synchro Highway Capacity Manual (HCM) procedures (see Appendix 4.12), which are based on methods from the Transportation Research Board's Highway Capacity Manual, but more explicitly considers the effects of signal coordination and delays caused by vehicle queue interaction. Five of the study intersections are currently controlled by traffic signals. LOS for signalized intersections is based upon the average delay experienced by all vehicles at the intersection. Seven of the 12 study intersections are currently controlled with two-way or four-way stop signs. These intersections were evaluated using the Synchro HCM operational procedures for unsignalized intersections. Intersection-wide delay and LOS is not defined for two-way stop controlled intersections. In those cases, evaluations are reported on the approaches with the worst delay and LOS.

Evaluation of impacts related to parking, public transport, and pedestrian and bicycle circulation was based upon provision of safe and adequate facilities.

4.12.5 Significance Thresholds

The CEQA Guidelines state that a project will normally have a significant impact on traffic and circulation if it will:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections). The City of Cotati has established a criterion for defining when a new project causes a significant impact under this threshold. The City requires mitigation of project traffic impacts whenever traffic generated by the proposed project causes an increase in delay over 55 seconds or an intersection to degrade from LOS D to LOS E or F.

b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

e. Result in inadequate emergency access.

f. Result in inadequate parking capacity.

g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

4.12.6 Impacts and Mitigation Measures

Less than Significant Impacts

The Sonoma County Transportation Authority does not maintain a Congestion Management Plan, so no analysis need be done (threshold b). Implementation of the DSP would not have an effect on air traffic patterns (threshold c).

Temporary access problems as well as congestion and safety hazards could potentially occur during construction of utilities in roadways, but impacts would be less than significant with implementation of the City's standard practices, which includes preparation and implementation of a Traffic Control Plan, for management of construction in roadways (threshold d).

With regard to bus transportation (threshold g), the roadway configuration proposed in the DSP would require relocation of the bus stops at the Old Redwood Highway/West Sierra/East Cotati intersection. The City would coordinate with the Golden Gate Transit and Sonoma County Transit providers to determine safe locations for bus stops within or near La Plaza. These may consist of transit curb extensions. The transit providers have stated they will work with the City to locate appropriate and safe bus stops. These impacts are less than significant.

With regard to parking capacity (threshold f), implementation of the DSP would provide sufficient parking to serve build-out demand in the planning area. The net effect of the DSP parking program would add about 970 parking spaces to the planning area. A summary of the parking from the DSP is shown in Table 4.12-3.

Table 4.12-3. Parking – Existing and Proposed

Zone	Type	Existing	Proposed
Commerce	On-street	0	58
	Off-street	252	252
	Subtotal	*252*	*310*
Northern Gateway	On-Street	0	375
	Off-street	480	900
	Subtotal	*480*	*1,275*
La Plaza	On-street	110	222
	Off-Street	108	116
	Subtotal	*218*	*338*
Historic Core	On-street	50	50
	Off-street	85	85
	Subtotal	*135*	*135*
Total On-street		**160**	**720**
Total Off-street		**925**	**1,353**
Grand Total		**1,085**	**2,058**

The DSP proposes average parking ratios for non-residential uses within each of the four districts. The proposed ratios are:

- Commerce: 4 spaces per 1,000 square feet
- Northern Gateway: 3 spaces per 1,000 square feet
- La Plaza: 3 spaces per 1,000 square feet
- Historic Core: 2 spaces per 1,000 square feet

Under the DSP, all parking for residential uses would be required to be provided on the residential sites themselves at the ratio of 2 parking spaces per unit, with the exception of the Historic Core, where 1.5 spaces per unit would be allowed.

Based on non-residential land uses proposed in the Specific Plan, the overall parking supply will exceed the parking demands. For example, future land uses in the Commerce district would generate parking at a ratio of 7.38 spaces per 1,000 square feet. The Northern Gateway's future uses would generate parking at 5.88 spaces per 1,000 square feet and the Historic Core at 3.29 spaces per 1,000 square feet. The surplus of the overall parking in all districts creates an overall parking scheme which provides enough parking for all uses in all districts.

The DSP proposes parking in locations that encourages drivers to park once to access a number of locations. The premise of the "Park Once" strategy is to maximize the use of each parking space and, thus, to reduce the number of parking spaces that would typically be required to meet City parking codes. Drivers would park just once and complete multiple tasks on foot. Spaces could efficiently be shared between land uses with differing peak hours, peak days, and peak seasons of parking demand. Parking demands for office, retail, residential, restaurant, and entertainment typically peak at different times, which allow a single parking space to be used for multiple uses. The Park Once strategy could potentially reduce the number of daily trips by 25%.

It should further be noted that the City of Cotati's Municipal Code enables shared or reduced on-site parking where two or more adjacent non-residential uses have distinct and differing peak parking usage periods. It also allows reduced parking for mixed-use projects. The DSP parking program, comprising new parking spaces along with the "Park Once" strategy, would provide sufficient parking to serve build-out of the planning area to where impacts would be less than significant.

In addition to the parking garages and/or surface lots, the DSP proposes reconfiguration of on-street and off-street parking. New on-street parallel parking would occur along Old Redwood Highway. Around La Plaza Park, vehicles would parallel park adjacent to the Park and angle parking would be provided opposite the park, except in front of the fire station where it would be parallel.

On the outside edge of La Plaza, the DSP proposes back-in angled vehicular parking. This type of parking configuration, used in numerous cities throughout the U.S., increases sight lines between motorists parking or unparking their vehicles and other motorists passing by in the adjacent travel lane, as well as between parking motorists and passing bicyclists. The back-in parking maneuver is generally easier for motorists to make than maneuvering into a parallel parking space. However, back-in angled parking is a new concept to the City of Cotati. While this is not a significant impact, it is recommended that prior to implementing back-in angled parking, the City test a pilot location. The pilot location should be provided with appropriate signage and educational materials should be provided to residents.

Cotati has a bicycle plan (Cotati Bicycle and Pedestrian Master Plan, adopted December 2008) that was developed in conjunction with the County and area cities. As a result, the plan is consistent with all the other plans pursuant to threshold G.

Significant Impacts

This section discusses significant impacts from the results of the traffic analysis for DSP conditions in year 2025 (the projected buildout year for the traffic model of the DSP), and other significant impacts.

DSP Conditions in Year 2025

Street Network. The DSP proposes several changes to the Downtown street network, as described below:

Old Redwood Highway (north): The DSP proposes to widen the street to accommodate on-street parking and a bike lane. The Plan also proposes to terminate the street at La Plaza with southbound traffic turning right onto La Plaza.

Old Redwood Highway (south): The DSP would not widen the roadway. The Plan would, however, terminate the street at La Plaza with northbound traffic turning right onto La Plaza.

West Sierra Avenue: The DSP would terminate the street at La Plaza with two eastbound right-turning lanes onto La Plaza.

East Cotati Avenue: The DSP proposes to replace the on-street parking near La Plaza with an additional travel lane. The Plan also proposes to terminate the street at La Plaza with two westbound right-turn lanes onto La Plaza.

La Plaza: The DSP proposes to close the section of street on Old Redwood Highway, West Sierra Avenue, and East Cotati Avenue that goes through La Plaza Park. The hexagon design of La Plaza would function like a roundabout with traffic circulating in a counter-clockwise direction. The street would have two travel lanes, including a wide outside travel lane, and parking along both sides of the street. Figure 4.12-4 shows the proposed intersection configurations at La Plaza under the DSP.

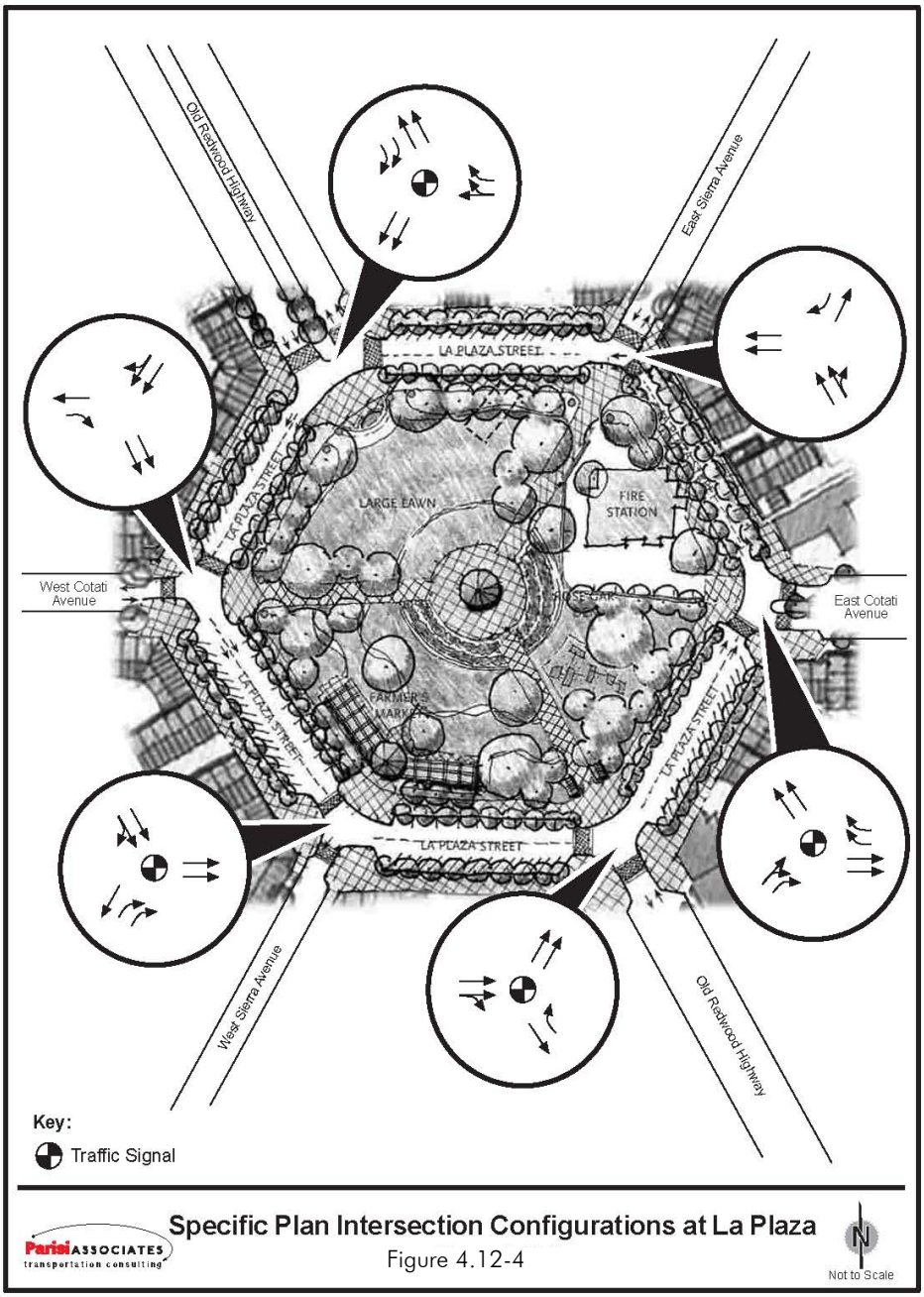
Old Redwood Highway/East Cotati and West Sierra Avenues: The DSP proposes to remove this intersection so that La Plaza Park could be restored to its original configuration. Traffic would circulate counter-clockwise around the park on La Plaza.

Old Redwood Highway (north)/La Plaza: Under the DSP, this intersection would terminate at La Plaza. The intersection would be signalized with a lane configuration of two right-turn lanes from Old Redwood Highway onto La Plaza and with one dedicated right-turn lane and a shared right-through lane on La Plaza at Old Redwood Highway.

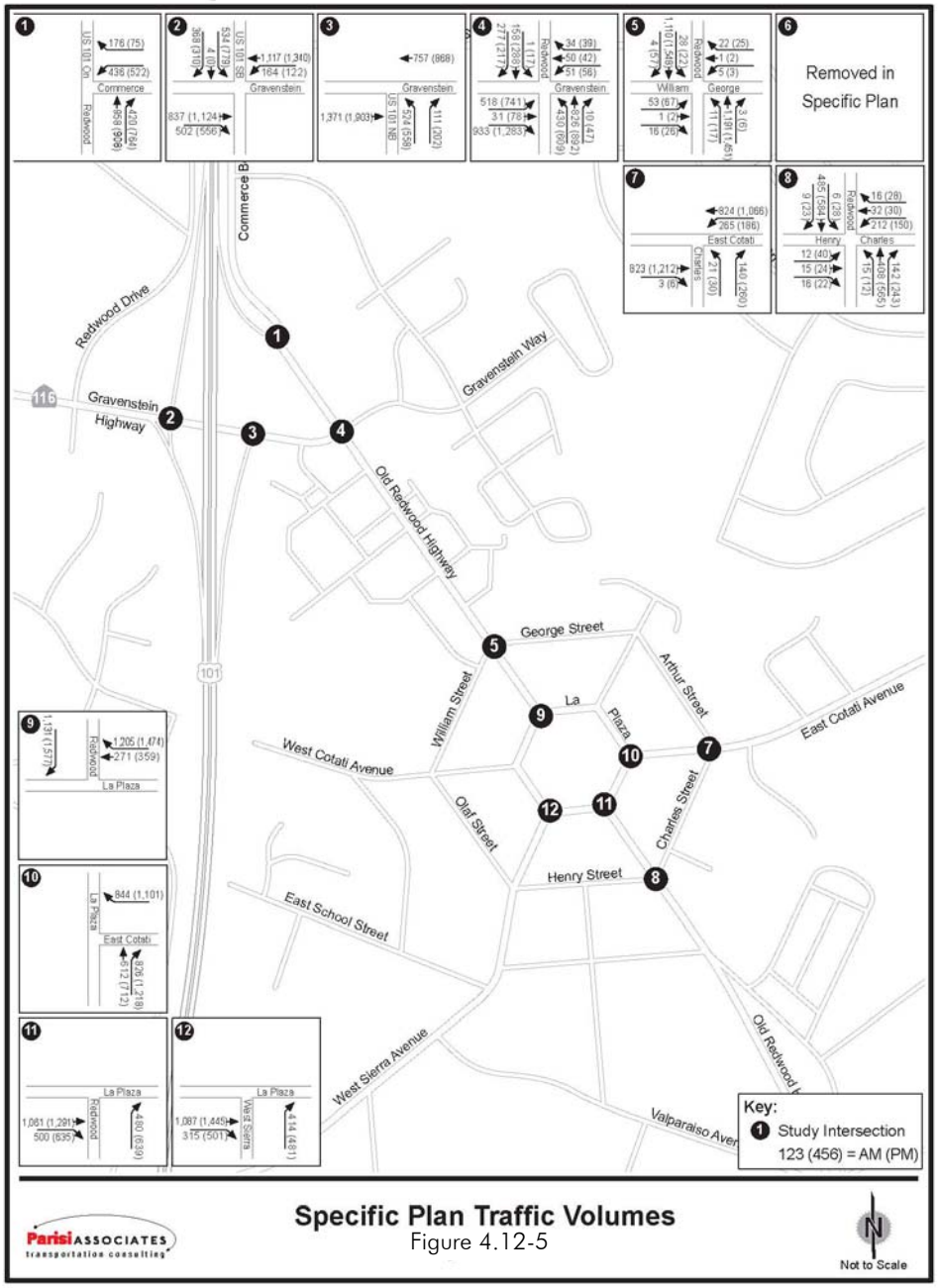
East Cotati Avenue/La Plaza: This intersection would also terminate at La Plaza. The intersection would be signalized with a lane configuration of two right-turn lanes from East Cotati Avenue onto La Plaza and one dedicated right-turn lane and a shared right-through lane on La Plaza at East Cotati Avenue.

Old Redwood Highway (south)/La Plaza: This intersection would terminate at La Plaza. The intersection would be signalized with a lane configuration of one right-turn lane from Old Redwood Highway onto La Plaza and one shared through-right turn lane and one through lane on La Plaza at Old Redwood Highway.

West Sierra Avenue/La Plaza: Under the DSP, this intersection would terminate at La Plaza. The intersection would be signalized with a lane configuration of two right-turn lanes from West Sierra Avenue onto La Plaza and one shared through-right turn lane and one through lane on La Plaza at Old Redwood Highway.



Trip Generation/Trip Distribution/Trip Assignment. Land uses in the DSP study area would generate similar peak hour traffic demands under both the General Plan and DSP land use scenarios. Therefore, the DSP analysis uses similar trip generation and trip distribution for both the No Project and DSP conditions for 2025. Figure 4.12-5 shows project traffic volumes under the DSP in 2025.



Level of Service. Implementation of the DSP's proposed roadway improvements, including the hexagonal street network in the La Plaza, would reduce overall study area delays for motorists compared to the No Project conditions, as shown in Table 4.12-2 (see column titled "Specific Plan – Unmitigated/Delay/LOS"). The reduction in delay would be due to the DSP's more efficient roadway network, including the traffic signal-progressed hexagonal La Plaza configuration.

As indicated in Table 4.12-2, three of the 12 study intersections, however, would meet or exceed the City's criteria for significant impacts with a LOS E or greater under the DSP 2025 condition. Those intersections are:

- Old Redwood Highway/William and George Streets
- East Cotati Avenue/Charles Street
- Old Redwood Highway/Henry and Charles Streets

Impact TRAN-1: Implementation of the DSP would significantly affect the operations of three intersections in year 2025 (threshold a).

Mitigation TRAN-1a: For the Old Redwood Highway/William and George Streets intersection, the City shall install a traffic signal. No changes to the intersection geometry would be needed.

Mitigation TRAN-1b: For the East Cotati Avenue/Charles Street intersection, the traffic impacts could be reduced to less than significant by prohibiting peak hour left turns from Charles Street to East Cotati Avenue. Additional traffic using Charles Street as a cut-through from Old Redwood Highway to East Cotati Avenue in an effort to avoid traffic signals would cause this situation to occur. Existing counts show that less than five vehicles in either peak hour make this left turn. Prohibiting left turns during the peak hour would not have a significant impact on existing traffic. In addition, implementation of traffic calming measures could also be installed on Charles Street to discourage additional cut-through traffic.

Mitigation TRAN 1c: For the Old Redwood Highway/Henry and Charles Streets intersection, the City shall install a traffic signal. No changes to the intersection geometry would be needed.

Significance after Mitigation: Implementation of the recommended mitigation measures and DSP components will cause the intersections to operate at acceptable levels, thereby reducing the impact to a less than significant level.

Impact TRAN-2: In the future under the DSP, northbound vehicular queuing could extend substantially along Old Redwood Highway (south) just south of La Plaza (threshold a).

Mitigation TRAN-2: The City shall design Old Redwood Highway's (south) approach to La Plaza to allow potential future inclusion of a second right-turn lane. The City shall monitor traffic conditions over time, and if traffic queuing becomes unacceptable, the City shall install a second right-turn lane (note that under No Build conditions, additional northbound and southbound through lanes would be required at the Old Redwood/West Sierra/East Cotati intersection to achieve acceptable operating conditions).

Significance after Mitigation: Implementation of the recommended mitigation measure would reduce the impact to less than significant.

Impact TRAN-3: During peak traffic conditions, some traffic may elect to bypass the La Plaza area and instead divert to one of the outer hexagonal streets (Charles, Henry, Olaf, William or George Streets) (threshold a).

Mitigation TRAN-3: The City shall monitor traffic flows on Charles, Henry, Olaf, William and George Streets and, if traffic levels increase to unacceptable levels, the City shall implement traffic calming features, such as speed tables, semi-diverters, chokers, chicanes, and/or other measures.[2]

Significance after Mitigation: Implementation of the recommended mitigation measure would reduce the impact to less than significant.

Impact TRAN-4: Under the DSP, the fire station's egress will be relocated to La Plaza Street directly opposite East Cotati Avenue, requiring fire apparatus to use one-way La Plaza to access other roadways, including Old Redwood Highway and West Sierra Avenue. This could affect response times (threshold e).

Mitigation TRAN-4: Traffic signal pre-emption would clear vehicular queues along La Plaza streets in advance of fire apparatus leaving the fire station. With a traffic signal at La Plaza/Old Redwood Highway (south), it may be prudent to allow emergency vehicles to travel southbound on the one-block segment of La Plaza between East Cotati Avenue and Old Redwood Highway (south) by pre-empting the signal at La Plaza/Old Redwood Highway (south) or fire apparatus could access Old Redwood Highway (south) by traveling southbound along Charles Street.

Significance after Mitigation: Implementation of the traffic signal pre-emption would reduce the impact to a less than significant level.

Impact TRAN-5: Provision of multi-use pathways within La Plaza park could create conflicts between non-motorized users (threshold d).

The DSP proposes to expand pedestrian and bicycle facilities throughout the planning area. An overall premise of the Plan is to promote "walkability." Wide multi-use pathways would be provided through the center and edges of La Plaza Park; unless appropriately signed, these pathways could experience conflicting pedestrian and bicycle movements.

Mitigation TRAN-5: The City shall install appropriate signage at La Plaza Park to require bicyclists using the pathways within the Park to walk their bicycles.

Significance after Mitigation: Implementation of the recommended mitigation measure would reduce the impact to less than significant.

Impact TRAN-6: The La Plaza design under the DSP would result in slow-moving traffic and a high level of right turns. Although the outside travel lane would be wide, some bicyclists may not be able to maneuver amongst vehicles while traveling along La Plaza, thus affecting their safety (thresholds d and g).

Mitigation TRANS-6. The City shall designate William, Olaf, Henry, Charles, Arthur, and George Streets be designated as bicycle streets (i.e., "bicycle boulevards") by installing signs and pavement markings. All types of vehicles would still be allowed on these streets, but bicycle safety and convenience would be enhanced.

[2] For example, installation of semi-diverters, which through the use of a projected curb prohibit specific one-way vehicular movements, could be installed on William Street near Old Redwood Highway (north) to prohibit southbound movements onto William Street and on Henry Street near West Sierra Avenue to prohibit eastbound movements onto Henry Street. The semi-diverters would encourage vehicle-trips attempting to bypass La Plaza to use La Plaza instead. The semi-diverters could be constructed to allow two-way bicycle trips.

Significance after Mitigation: Implementation of the recommended mitigation measure will reduce the impact to a less than significant level.

No Project Alternative in 2025

Figure 4.12-6 shows anticipated traffic volumes for the No Project conditions in year 2025. Under the No Project conditions, no changes would be made to the existing street system, especially the elimination of the existing intersection in La Plaza Park. Table 4.12-2 (introduced earlier in this section) shows the anticipated LOS for the No Project condition in year 2025. As shown in Table 4.12-2, four of the 12 study intersections would meet or exceed the City's criteria for significant impacts with an LOS E or greater (see column titled "No Project 2025 – Unmitigated/Delay/LOS"). Those intersections are:

- Old Redwood Highway/William and George Streets
- Old Redwood Highway/East Cotati and West Sierra Avenues
- Old Redwood Highway/Henry and Charles Streets
- East Cotati Avenue/La Plaza

The traffic analysis has identified that implementation of the following measures would provide acceptable operating conditions under No Project conditions (see Table 4.12-2, column titled « No Project 2025 – Mitigated/Delay/Los/Mitigation ») :

- Old Redwood Highway/William and George Streets – the traffic impacts could be reduced to less than significant by installing a traffic signal. No changes to the intersection geometry would be needed.

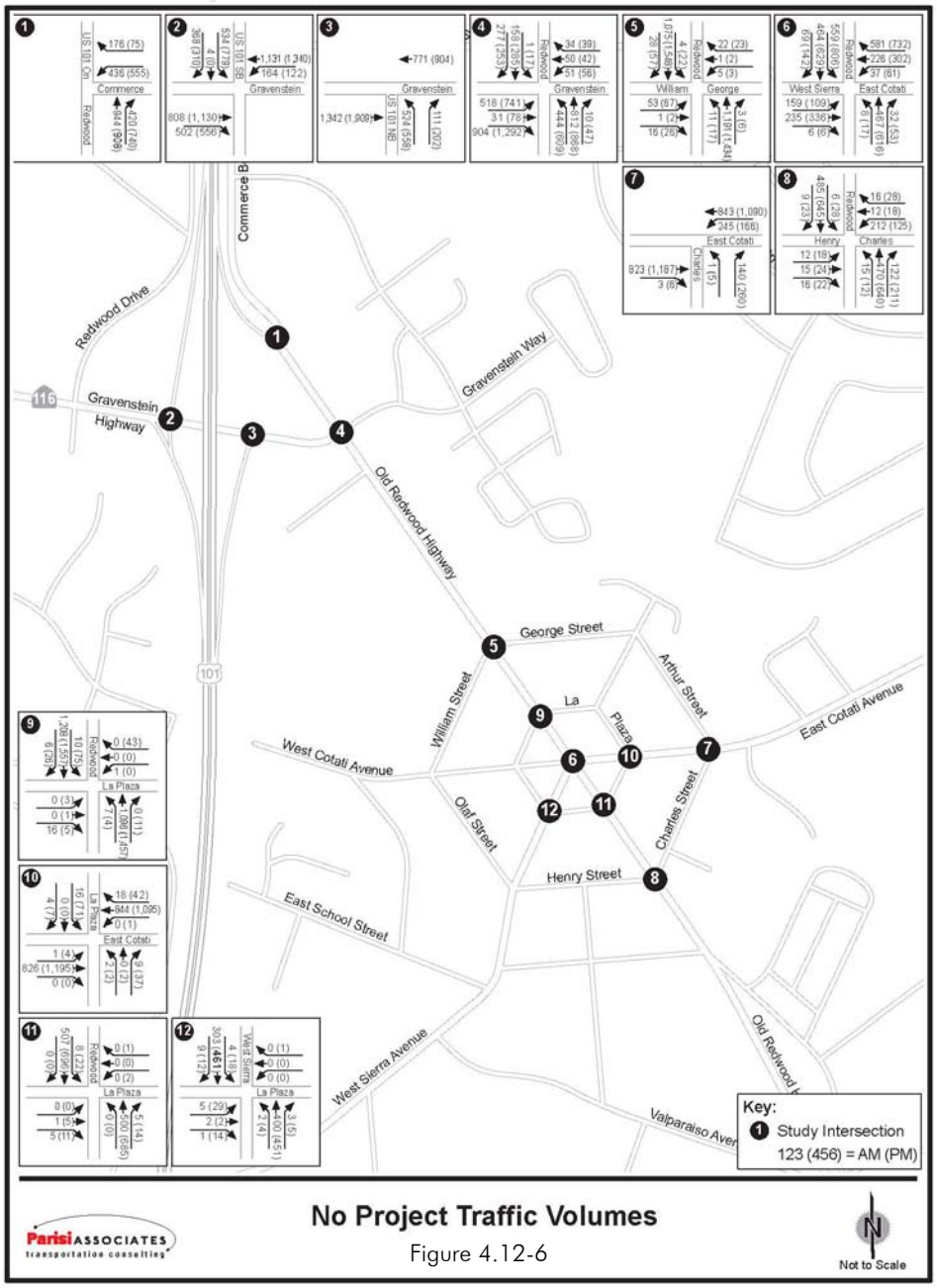
- Old Redwood Highway/East Cotati and West Sierra Avenues – the traffic impacts could be reduced to less than significant by adding a through traffic lane in northbound and southbound directions, and right-turn lane in the southbound direction. Old Redwood Highway would need to be widened to accommodate northbound and southbound merge lanes. It should be noted that the widening could impact existing parking and right-of-way.

- Old Redwood Highway/Henry and Charles Streets – the traffic impacts could be reduced to less than significant by installing a traffic signal. No changes to the intersection geometry would be needed.

- East Cotati Avenue/La Plaza – the traffic impacts could be reduced to less than significant by installing a traffic signal. No changes to the intersection geometry would be needed.

4.12.7 Cumulative Impacts

The analysis of traffic impacts above included all anticipated development in the General Plan as well as regional growth. That constitutes the cumulative condition, so project and cumulative analysis are set forth above.


Redwood Drive
Gravenstein Highway
Commerce Blvd
Gravenstein Way
Old Redwood Highway
George Street
William Street
Arthur Street
La Plaza
West Cotati Avenue
East Cotati Avenue
Olof Street
Charles Street
Henry Street
East School Street
West Sierra Avenue
Valparaiso Ave
Old Redwood
Key:
1 Study Intersection
123 (456) = AM (PM)
No Project Traffic Volumes
Figure 4.12-6
Parisi ASSOCIATES
transportation consulting
N
Not to Scale

4.12.8 References

City of Cotati. 1998. *General Plan Update*.

City of Cotati. December 2008. *Cotati Bicycle and Pedestrian Master Plan*.

Institute of Transportation Engineers. 2000. *Highway Capacity Manual*.

Transportation Research Board. 2003. *Trip Generation, 7th Edition*.