IV. ENVIRONMENTAL IMPACT ANALYSIS
O. TRAFFIC/CIRCULATION

INTRODUCTION

This section of the Revised Draft EIR provides a description of transportation facilities and traffic operations within the City of Healdsburg, information on regulations and agencies with jurisdiction over the Project area, proposed General Plan policies relevant to traffic and circulation, and an analysis of potential impacts related to traffic and circulation resulting from implementation of the proposed General Plan. This section recommends measures to mitigate potentially significant impacts on these resources. Information used to prepare this section was taken from the *Healdsburg 2030 General Plan Background Report* (January 2009 Draft), Transportation Research Board's *Highway Capacity Manual 2000*, California Department of Transportation's *Highway Design Manual* and *Project Development Procedures Manual*, Institute of Transportation Engineers' *Trip Generation (7th Edition)*, *US 101 HOV Lane Widening and Improvements Project Environmental Assessment/Environmental Impact Report: Highway 101 from Steele Lane to Windsor River Road*, and analysis prepared for the proposed Project by Whitlock & Weinberger Transportation, Inc.

ENVIRONMENTAL SETTING

Physical Setting

Street and Road System

Physical Constraints

A city is defined and at the same time constrained by the network of highways, roads, streets, sidewalks, and transit services by which its residents and goods are moved through, in and out of the city. Healdsburg is a compact city defined by a number of man-made and natural features that both act as a framework for the city's street and road system and constrain its expansion and improvement. Due to Healdsburg's size, mobility within the city is still relatively easy.

U.S. Highway 101 acts as a physical barrier along the city's west side, limiting westerly access because there are few grade-separated crossings. This freeway barrier is pierced by underpasses at only four points within the City: Chiquita Road, Dry Creek Road, Mill Street-Westside Road and Old Redwood Highway.

The Russian River and Foss Creek also restrict access, requiring bridges wherever they are crossed. The two major bridges in the City are along Healdsburg Avenue east of Front Street. The Healdsburg Avenue Bridge over the Russian River is planned for replacement or rehabilitation. A second bridge that spans the Russian River overflow area east of the main bridge was rebuilt in 1987 as a three-lane bridge with sidewalks.

The railroad tracks also act as a constraint on the street and road system because of the need to provide crossing protection, or preferably, grade separation, wherever roadways cross it.

Because of these physical barriers, the City has only a few "gateway" intersections through which much of the City's traffic flows. These are the intersections at Healdsburg Avenue/Mill Street-Vine Street, Healdsburg Avenue/Dry Creek Road-March Avenue, Healdsburg Avenue/Old Redwood Highway and Healdsburg Avenue/Front Street (the east leg of which is the Healdsburg Avenue Bridge over the Russian River). In addition to providing access to and from the community, these intersections carry a significant amount of the City's internal traffic.

These constraints limit circulation alternatives within and between the existing and developing areas of the City. Continuous travel routes through the City are limited to a few, already well-used, roadways. The existing street network has discontinuities, particularly in the north-south direction, which cannot easily be overcome. Grove Street provides an alternative route to Healdsburg Avenue for limited areas on the west side of the City, but only University Street serves a similar purpose and extends both north and south of Powell Street on the east side of the City.

It should be noted that the physical boundaries described above generally coincide with the Healdsburg Urban Growth Boundary and no expansion of roads beyond this boundary is necessary to serve future development within it.

Functional Classifications

The City's street and road system includes four basic functional types of roadways, as follows.

Local Streets

Local Streets provide immediate access to properties, are likely to be discontinuous in alignment, and generally carry very low traffic volumes. Those streets not otherwise classified as any of the following three types of roadway fall into this class.

Collector Streets

Collector Streets are fed by local streets, provide local circulation options and connections to other roadways, and carry light to moderate traffic volumes.

Arterial Streets

Arterial Streets are fed by local streets and collector roadways, provide intra-city circulation and connection to regional roadways, and carry relatively heavy volumes of traffic. Roadways falling into this class are Dry Creek Road, Mill Street west of Healdsburg Avenue, and Healdsburg Avenue.

Freeways

Freeways are fed by arterial roadways, provide inter-city and intra-city travel, connect to other regional highways, and are capable of carrying heavy traffic volumes on a grade-separated facility. U.S. Highway 101 serves this function through the City.

For a community the size and scale of Healdsburg, it is not unusual for some roadways to serve dual functions, such as providing both arterial and collector service. It is, therefore, difficult to clearly classify every roadway. Furthermore, the width of a roadway does not always directly correspond to its function in the overall circulation system. Generally, however, the wider the roadway, the more regional its function.

Roadway Widths and Physical Characteristics

Most of the streets within the city have one travel lane in each direction, for a total of two lanes. The principal exceptions are wider segments on Healdsburg Avenue north of Powell Avenue to Parkland Farms Boulevard and south of Mill Street to Exchange Avenue, Dry Creek Road, some east-west streets at their intersection with Healdsburg Avenue, and portions of Vine Street and Grove Street. Roadways within the older portion of the city are generally narrower than in newer areas. There are several street segments where parking has been prohibited on one side of the street to facilitate two-way traffic flow. There are no one-way streets in the city.

Proposed Circulation Plan Diagram

Figure IV.O-1 depicts the classification of existing and proposed streets and roads within the Urban Service Area as shown in the Circulation Plan of the proposed General Plan.

Proposed Street Standards Cross-Sections

Figure IV.O-2 displays standard cross-sections for various street classifications as shown in the proposed General Plan. The City also has adopted different cross-sections for streets within the Area A Specific Plan and the Saggio Hills Area Plan, as well as for Grove Street between Grant Street and Dry Creek Road.

Healdsburg Avenue, within the developed portions of the city, has a right-of-way width ranging from 60 to 84 feet and street pavement width ranging from 40 to 64 feet.

Streets in the area east of Healdsburg Avenue and south of Powell Avenue have right-of-way widths generally within the range of 40 to 66 feet. Street widths vary from 28 to 48 feet, although there are some streets with even narrower pavement widths. In the area east of Healdsburg Avenue and north of and including Powell Avenue, right-of-way widths are generally in the range of 50 to 60 feet and the street pavements are between 35 and 45 feet wide. The streets on the west side of Healdsburg Avenue generally have right-of-way widths of 60 feet or more.

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Figure IV.O-1 Circulation Plan (pg. 52 of the GP)

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Figure IV.O-2 Street Standard Cross Sections (pg. 53 of the GP)

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Intersection Operation

The capacity of a street system is typically dependent upon the operation of intersections rather than the segments connecting them, since this is where conflicting movements are concentrated. Traffic analyses therefore usually focus on the points where two arterial or collector streets intersect. Level of Service (LOS) is used to rank traffic operation based on traffic volumes and capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions, but not failure. The LOS designation is accompanied by a measure that indicates a level of delay. The ranges of delay associated with the various levels of service are indicated in Table IV.O-1.

Table IV.O-1
Intersection Level of Service Criteria

LOS	Signalized Intersections	Two-Way and All-Way Stop-Controlled Intersections
A	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase and do not stop at all.	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.
B	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.
C	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.
D	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.
E	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.
F	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.

Source: Transportation Research Board, Highway Capacity Manual 2000, 2000.

Twenty-eight intersections in Healdsburg were analyzed using methodologies from the *Highway Capacity Manual*, 2000. This source contains methodologies for various types of intersection control, including signalized, all-way stop-controlled, and two-way stop-controlled, all of which are related to a measurement of delay in average number of seconds per vehicle. The intersections used as the basis for determining the status of traffic operation in the City were selected to include nearly all of the signalized intersections as well as most of the locations where an arterial intersects another arterial street or a collector street. The study area and lane configurations are shown in Figure IV.O-3. Existing traffic volumes are indicated in Figure IV.O-4.

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Figure IV.O-3 Study Area and Lane Configurations (IV.O-1 from Traffic Sub)

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Figure IV.O-4 Existing Traffic Volumes (IV.O-2 from Traffic Sub)

Traffic volumes were measured for the 28 study intersections between November 1999 and August 2007. Machine counts obtained in 2007 were compared to older volumes, and it was determined that volumes have generally remained fairly consistent, though factors were applied to counts as appropriate to replicate current 2007 volumes for all 28 study intersections. Since traffic congestion tends to be most severe during the evening commute period, only the p.m. peak hour was evaluated. The p.m. peak hour is the highest volume hour between 4:00 p.m. and 6:00 p.m.

A summary of existing PM peak hour LOS calculation is presented in Table IV.O-2. All of the study intersections are currently operating at LOS C or better overall and on stop-controlled minor street approaches during the p.m. peak period except:

Table IV.O-2
Summary of Existing P.M. Peak Hour Level of Service Calculations

Intersection *Approach*		**Intersection Controls**	**Existing Conditions**	
			Delay	**LOS**
1	Healdsburg / Parkland Farms	SIG	9.8	A
2	Healdsburg / Grove	SIG	12.8	B
3	Healdsburg / Sunnyvale *Westbound Approach*	TWS	1.4 *12.8*	A *B*
4	U.S. 101 South Ramps / Dry Creek *Southbound Approach*	TWS	56.5 **	F *F*
5	U.S. 101 North Ramps / Dry Creek *Northbound Approach*	TWS	5.8 *18.8*	A *C*
6	Grove / Dry Creek	SIG	20.8	C
7	Healdsburg / Dry Creek - March	SIG	33.1	C
8	University / March	AWSC	8.2	A
9	Healdsburg / Powell	SIG	18.5	B
10	Fitch / Powell *Northbound Approach*	TWS	4.1 *12.1*	A *B*
11	University / Powell	AWSC	9.9	A
12	Grove / West Grant	AWSC	8.7	A
13	Healdsburg / Grant	SIG	16.4	B
14	Fitch / Grant	AWSC	7.7	A
15	University / Grant *Eastbound Approach*	TWS	0.9 *9.9*	A *A*
16	Healdsburg / Piper	SIG	18.2	B
17	Healdsburg / North	SIG	12.8	B
18	Vine / Matheson	AWSC	39.7	E
19	Healdsburg / Matheson	SIG	18.7	B
20	Fitch / Matheson	AWSC	8.9	A
21	University / Matheson	AWSC	9.8	A
22	U.S. 101 North Ramp / Mill *Eastbound Left-turn*	TWS	0.5 *8.2*	A *A*
23	U.S. 101 South Ramp / Westside *Southbound Approach*	TWS	2.9 *12.9*	A *A*
24	Healdsburg / Vine - Mill	SIG	40.9	D

Table IV.O-2 (Continued)
Summary of Existing P.M. Peak Hour Level of Service Calculations

Intersection *Approach*		Intersection Controls	Existing Conditions	
			Delay	LOS
25	Healdsburg / Exchange	SIG	14.7	B
26	Healdsburg / Front - Kennedy	TWS	5.1	A
	Northbound Approach		*12.9*	*B*
	Southbound Approach		*17.5*	*C*
27	U.S. 101 South Ramps / Old Redwood Hwy	TWS	5.0	A
	Southbound Approach		*12.4*	*B*
28	U.S. 101 North Ramps/Healdsburg	TWS	4.2	A
	Northbound Approach		*11.2*	*B*

Notes: Delay is in average seconds per vehicle, LOS = Level of Service
SIG = Signalized, TWS = Two-way Stop Controlled, AWSC = All-way Stop Controlled
Results for minor, stop-controlled approaches are shown in italics.

Source: Whitlock & Weinberger Transportation, Inc., 2007.

- U.S. Highway 101 South Ramps/Dry Creek Road, which is experiencing LOS F operation on the off-ramp approach;
- Vine Street/Matheson Street, which is operating at LOS E; and
- Healdsburg Avenue/Vine Street-Mill Street, which is operating at LOS D and presents a confusing entrance to the City.

Freeway Operation

The freeway analysis methodology contained in Chapter 23 of the HCM, "Basic Freeway Segments," was used to determine levels of service on U.S. Highway 101. The method uses variables such as traffic volumes, geometric configuration of the freeway (i.e., number of lanes, widths of lanes and shoulders), topography, the percentage of heavy vehicles, and free-flow speeds to determine LOS criteria including the "maximum density." The maximum density is indicative of the travel demand on a freeway facility and is measured in the number of passenger cars per mile per lane. The density ranges associated with the various LOS are indicated in Table IV.O-3.

The segment of U.S. Highway 101 to the south of Healdsburg between Old Redwood Highway and Arata Lane was chosen for analysis as this is the freeway segment anticipated to experience the greatest potential increases in traffic associated with buildout of the proposed Project, and since recent traffic projections have been developed for the freeway in the vicinity. The freeway is currently operating at LOS B in both the northbound and southbound directions during the PM peak hour, with densities of 15.6 passenger cars per mile per lane (pc/mi/ln) northbound and 17.2 pc/mi/ln southbound.

Table IV.O-3
Freeway Level of Service Criteria

LOS	Maximum Density (pc/mi/ln)*
A	11
B	18
C	26
D	35
E	45
F	More than 45

** pc/mi/ln = passenger cars per mile per lane*
Source: Transportation Research Board, Highway Capacity Manual 2000, 2000.

Pedestrian Facilities

Pedestrian facilities in the city consist of sidewalks, typically located on both sides of all public streets. Gaps in the system exist on some of the arterial and collector streets, including Dry Creek Road, Grant Street, Grove Street (which has sidewalk on its east side between Healdsburg Avenue and Dry Creek Road and a pathway on its east side between Dry Creek Road and Grant Street), Healdsburg Avenue, one block of Matheson Street, Mill Street, Monte Vista Avenue, Powell Avenue, and University Street. There are no sidewalks or other pedestrian amenities on Chiquita Road, North Fitch Mountain Road or South Fitch Mountain Road. Pedestrian crossings are provided at most signalized intersections, including pedestrian signals. There are a number of unprotected crosswalks on Healdsburg Avenue. However, additional protective measures have been provided at the mid-block crosswalk between North Street and Piper Street, including signage, striping and brick pavers.

Bicycle Facilities

The city's bicycle network includes Class I (off-street paths), Class II (bicycle lanes) and Class III (bicycle routes) facilities. The bulk of the system is comprised of Class III routes; however, there is a Class I path adjacent to the west side of the railroad tracks between Vine Street/Mill Street to Norton Slough north of City Hall and Class II bike lanes are provided on Parkland Farms Boulevard, Rosewood Drive and sections of Grove Street and Poppy Hill Drive. Signs are posted along the bicycle routes that utilize local collector and arterial streets. The Foss Creek Pathway, when completed, will provide a 4.1-mile long, off-street bicycle and pedestrian path running from the northern city boundary to just north of the Russian River bridge.

Rail Service

A railroad line located between U.S. Highway 101 and Healdsburg Avenue runs north-south through the City. It is owned by the North Coast Railroad Authority north of the intersection of Healdsburg Avenue with Mill Street-Vine Street, and by the Sonoma Marin Area Rail Transit Commission (SMART) south of

the intersection. There is currently no service on this line; however, use for freight hauling may resume in the near future. Additionally, passenger rail service is anticipated to begin in 2013, with eight weekday roundtrips and four weekend roundtrips between Cloverdale in northern Sonoma County and Larkspur in southern Marin County. Approximately 413 daily riders are projected from Healdsburg.

Air Service

Air transportation for the city's residents includes layers of service that are similar to the roadway system. Limited service is available at the Healdsburg Municipal Airport located on Lytton Springs Road north of the city. This airport has a 3,100-foot runway capable of handling small jets. Facilities at the airport include hangars, maintenance buildings, commercial buildings, and fuel storage and pumps. However, there is no tower, nor is the airport regularly staffed. The airport primarily serves the needs of the wine and geothermal industries and recreational flyers. It is occasionally used when the Sonoma County Airport is fogged in and for medical emergencies.

Sonoma County Airport, located approximately eight miles south of Healdsburg, is a commercial service airport with facilities for airline passenger service, business and recreational aircraft plus law enforcement, emergency medical service, and fire-fighting aircraft. Horizon is currently providing scheduled flights to Los Angeles, Portland and Seattle on a daily basis.

Three major airports - San Francisco, Oakland and Sacramento International Airports - are all within a two-hour drive of the city.

Taxi Service

Healdsburg Taxi Cab Company provides taxi service in the city.

Transit Service

Healdsburg Transit (HT) operates within city limits on a variable fixed route system. Bus service runs weekdays and Saturday from 8:30 a.m. to 4:20 p.m. Door-to-door Dial-A-Ride service is available on weekdays with scheduled pickups starting at 9:15 a.m. and ending at 1:15 p.m. All the HT buses are equipped with wheelchairs lifts and are disabled accessible.

Sonoma County Transit (SCT) Route 60 provides daily regional fixed-route bus service to the city. It operates between the Downtown Transit Mall in Santa Rosa and the City of Cloverdale City Hall, traveling through the city along Healdsburg Avenue north of Exchange Avenue (due to weight limitations on the Russian River bridge) and sections of Grove Street and Dry Creek Road. Scheduled stops are made at 11 locations in the city, depending on whether the particular route ends in Healdsburg or passes through. Weekday service operates on variable headways of between fifteen minutes and one hour. Weekend service operates with headways that vary from one to three hours. All routes serving the city have substantial remaining capacity for additional passengers.

Regulatory Setting

Federal

Roadway Operation

No federal plans, policies, regulations or laws related to roadway operation are applicable to the proposed Project.

Bicyclists

Federal transportation policy is to increase non-motorized transportation to at least 15 percent of all trips and to simultaneously reduce the number of non-motorized travelers killed or injured in traffic collisions by at least 10 percent (TEA-21, 1998). This policy, which was adopted in 1994 as part of the National Bicycling and Walking Study, remains a high priority for the U.S. Department of Transportation (USDOT). Federal transportation legislation provides the funding opportunities, planning processes, and policy language by which states and metropolitan areas can achieve these ambitious national goals.

Accommodating Bicycle and Pedestrian Travel: A Recommended Approach

This document is a policy statement that was adopted by the USDOT in response to TEA-21. USDOT encourages public agencies, professional organizations, advocacy groups, and any other groups involved in transportation issues to adopt this policy to further promote bicycling and walking as viable components of the transportation system. The four directives issued in this policy statement address measures to improve bicycle and pedestrian access, convenience, and safety in transportation projects. This policy statement notes that:

> *"The challenge for transportation planners, highway engineers, and bicycle and pedestrian user groups, therefore, is to balance their competing interests in a limited amount of right-of-way, and to develop a transportation infrastructure that provides access for all, a real choice of modes, and safety in equal measure for each mode of travel."*

Pedestrians

Americans with Disabilities Act (ADA)

The ADA provides comprehensive rights and protections to individuals with disabilities in the areas of employment, public accommodations, state and local government services, and telecommunications. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency. To implement this goal, the U.S. Access Board has created accessibility guidelines for public rights-of-way. The guidelines address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

State

Roadway Operation

California Department of Transportation (Caltrans) specifies LOS C as the minimum acceptable level of service standard for the freeway segments, ramps, and ramp intersections, with the overall intersection LOS used rather than that for any single approach or movement. For facilities that are already operating unacceptably at LOS D or worse, any change in the measure of effectiveness is considered significant. This standard was applied to the intersections at Healdsburg's freeway interchanges.

Encroachment Permits

The use of California State highways for other than normal transportation purposes, such as construction of highway improvements and highway landscaping, require written authorization from the Department of Transportation. Authority for Caltrans to control encroachments within the State highway rights of way is contained in the Streets and Highways Code starting with Section 660. Individuals, contractors, corporations, utilities, cities, counties, and other government agencies proposing to conduct any activity within, under, or over the State highway right of way need an encroachment permit.

Bicyclists

California Bicycle Transportation Act, Streets and Highways Code 890-894

This Act seeks "to establish a bicycle transportation system designed and developed to achieve the functional commuting needs of the employee, student, business person, and shopper as the foremost consideration in route selection, to have the physical safety of the bicyclist and bicyclist's property as a major planning component, and to have the capacity to accommodate bicyclists of all ages and skills." A city or county may complete a bicycle transportation plan pursuant to Section 891.2 in order for their project to be considered by Caltrans for funding. Section 890.6 states that Caltrans, in cooperation with county and city governments, shall establish minimum safety design criteria for the planning and construction of bikeways and roadways where bicycle travel is permitted. Section 890.8 states Caltrans shall establish uniform specifications and symbols for signs, markers, and traffic control devices to designate bikeways, regulate traffic, improve safety and convenience for bicyclists, and alert pedestrians and motorists of the presence of bicyclists on bikeways and on roadways where bicycle travel is permitted. And Section 891 states, "All city, county, regional, and other local agencies responsible for the development or operation of bikeways or roadways where bicycle travel is permitted shall utilize all minimum safety design criteria and uniform specifications and symbols for signs, markers, and traffic control devices established pursuant to Sections 890.6 and 890.8."

Highway Design Manual, Chapter 1000, "Bikeway Planning and Design"

This document provides design standards and guidelines for on- and off-street bikeways. State and local transportation agencies are required to comply with Chapter 1000 mandatory standards as a minimum

when implementing new bikeways. Chapter 1000 differs from the rest of the Highway Design Manual in that it also applies to facilities off the State Highway System (California Streets and Highways Code, Sections 890.8 and 891).[1]

Project Development Procedures Manual (Chapter 31: Non-motorized Transportation Facilities)

Pertinent statutory requirements, planning policies, and implementing procedures regarding non-motorized transportation facilities are outlined in this publication.[2]

Deputy Directive 64 (DD-64), "Accommodating Non-Motorized Travel"

Caltrans fully considers the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products. This includes incorporation of the best available standards in all of Caltrans's practices. Caltrans has adopted the best practice concepts in the USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure.

Director's Policy 22 (DP-22), "Director's Policy on Context Sensitive Solutions"

This policy supports an approach to managing the transportation system that balances transportation needs with community goals. Solutions involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians. Context Sensitive Solutions is a collaborative approach that considers the needs and concerns of all stakeholders.

Pedestrians

Assembly Concurrent Resolution 211 (ACR 211)

This Resolution acknowledges the importance of bicycling and walking to the State of California and encourages all cities and counties to "implement the policies of [Deputy Directive 64] and the United States Department of Transportation's design guidance document on integrating bicycling and walking when building their transportation infrastructure."

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[1] *California Department of Transportation, Highway Design Manual, website: www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm, October 30, 2007.*

[2] *California Department of Transportation, Project Development Procedures Manual, website: http://www.dot.ca.gov/hq/oppd/pdpm/pdpmn.htm, October 30, 2007.*

Project Development Procedures Manual (Chapter 31: Non-motorized Transportation Facilities)

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Director's Policy 22 (DP-22), "Director's Policy on Context Sensitive Solutions" (November 2001)

Caltrans supports an approach to managing the transportation system that balances transportation needs with community goals. Solutions involve and integrate community goals in the planning, design, construction, and maintenance and operations processes, including accommodating the needs of bicyclists and pedestrians. Context Sensitive Solutions is a collaborative approach that considers the needs and concerns of all stakeholders.

Regional/Local

Roadways

Metropolitan Transportation Commission

Most of the funding for transportation projects from federal and state sources is allocated at the regional level by the Metropolitan Transportation Commission (MTC), which is the transportation planning, coordinating and financing agency for the nine-county San Francisco Bay Area.. The current regional transportation plan, *Transportation 2030*, details investments through the region to manage, maintain and improve the transportation system. Two projects affecting Healdsburg in particular are included among the plan's strategic expansion programs: 1) improvements to the U.S. 101/Mill Street interchange and 2) improvements to the U.S. 101/Dry Creek interchange. Additionally, transportation control measures included in *Transportation 2030* may be funded at the local level, such as bicycle and pedestrian transportation improvements.

Sonoma County Transportation Authority

The Sonoma County Transportation Authority (SCTA) acts as the countywide planning and programming agency for transportation-related issues. The SCTA is responsible for programming most of the state and federal funds available to Sonoma County for roadway, transit and bicycle projects.

The SCTA's 2004 *Sonoma County Comprehensive Transportation Plan* (CTP) is the latest countywide transportation planning document. The purpose of the Plan is to provide policy guidance and prioritize specific transportation improvements needs throughout Sonoma County for the next 25 years.

CTP objectives that are pertinent to Healdsburg including the following:

- Improve access to US 101 from Central Healdsburg
- Relieve truck traffic and congestion in southern Healdsburg
- Discourage through truck traffic on arterials (North/South subarea of the county)
- Relieve congestion on roads and highways
- Improve key connection points between corridors for all modes of travel
- Reduce truck traffic on local streets and roads. Emphasize highway and rail for movement of goods instead.
- Make Sonoma County roads and highways more easily navigable for tourists

The CTP identifies several transportation needs in the City of Healdsburg, including:

- Mill Street/Highway 101 interchange project (ranked 7th on Highway 101 projects list)
- Dry Creek Road/Highway 101 interchange project (ranked 11th on Highway 101 projects list)
- S. Healdsburg Avenue/Mill Street improvements (ranked 12th on streets and road project list)
- Pavement rehabilitation on South Healdsburg Avenue and Mill Street (ranked 12th in the North/South subarea of the county)

Streets and Traffic Controls Infrastructure Capacity Charges

The City of Healdsburg assesses a capacity charge on new development in order to fund city-wide projects, such as traffic signals. The current charge is $2,991 per dwelling unit and $.59 per square foot of commercial and industrial development. The City of Healdsburg Capital Improvement Program projects that approximately $1.1 million will be collected by the City over the five-year period beginning in July 2008.

Bicycles and Pedestrians

Metropolitan Transportation Commission Resolution No. 3765, "Routine Accommodations"

Projects funded all or in part with regional funds must consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64. These recommendations shall not replace locally-adopted policies regarding transportation planning, design, and construction. These recommendations are intended to facilitate the accommodation of pedestrians, which includes wheelchair users and bicyclists, into all projects where bicycle and pedestrian travel is consistent with current,

adopted regional and local plans. In the absence of such plans, federal, state, and local standards and guidelines should be used to determine appropriate accommodations.[3]

Healdsburg Bicycle & Pedestrian Master Plan

The Healdsburg Bicycle & Pedestrian Master Plan, adopted by the Healdsburg City Council in October 2008, identifies a system of physical and programmatic improvements designed to enhance and expand existing bicyclist and pedestrian facilities, close existing gaps in the bicycle/pedestrian network, remove constraints, provide for greater local and regional connectivity, and increase the potential for walking and bicycling as transportation modes.

PROPOSED GENERAL PLAN POLICIES AND IMPLEMENTATION MEASURES

Proposed General Plan policies and implementation measures that affect or pertain to traffic and circulation are listed below.

Policies

- *LU-D-5/ED-B-4:* Large single-tenant commercial buildings around the Plaza shall be regulated to minimize aesthetic, economic and traffic impacts.
- *LU-F-1:* Land uses adjacent to designated transit facilities should derive maximum benefit from transit facilities and may include retail, office, employment and higher-density residential uses.
- *LU-F-2:* The City shall encourage mixed use development, including new housing and employment opportunities, as well as reuse of underutilized or vacant industrial land, around the historic railroad depot to support transit use at the depot.
- *ED-C-1:* Work towards increasing Healdsburg Municipal Airport's commercial contribution to the city and the region, and efforts to transition the airport to a self-sufficient enterprise operation.
- *T-A-1:* The City shall strive to maintain at least a Level of Service (LOS) D operation during periods of peak traffic flow at critical intersections, and Level of Service C operation at all other times. These standards shall apply only to intersections of an arterial street with either another arterial or a collector street and intersections of two collector streets. LOS F operation shall be acceptable for a stop-controlled approach to a through street provided the higher levels of delay affect 25 or fewer vehicles per hour. Attainment of these levels of service shall be consistent with the financial resources available and the limits of technical feasibility.

  The following table indicates the standards described above based on the methodologies detailed in the Highway Capacity Manual 2000.

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[3] *Metropolitan Transportation Commission, Bicycles and Pedestrians, Regional Planning, website: http://www.mtc.ca.gov/planning/bicyclespedestrians/regional.htm, October 30, 2007.*

Table IV.O-4
Minimum Level of Service Standards for
Intersections of Two Arterial Streets and of an Arterial and a Collector Street

Type of Control	Peak Periods	Off-Peak Periods
Signalized	D	C
All-way stop controlled	D	C
Two-way stop controlled – worst approach	E*	D*
** LOS F operation is acceptable for movements or approaches having a volume of 25 vehicles or less*		

- *T-A-2:* Streets shall be dedicated, modified, extended, and constructed according to the street cross-sections as shown in General Plan Figure 6 (refer to Figure IV.O-2), Street Standard Cross-Sections with the following exceptions:

  (a) In areas included in a specific plan adopted by the City, streets shall be dedicated, widened, extended and constructed according to street standards shown in such plans(s).

  (b) Deviations from these cross-sections may be allowed where such improvements are infeasible or are needed to preserve neighborhood character, enhance pedestrian use or protect significant trees, upon a determination by the City Engineer that safe and adequate public access and circulation are preserved by such deviations.

- *T-A-3:* New local streets shall be designed to discourage heavy through-traffic within residential neighborhoods

- *T-A-4:* New local streets shall ensure direct and adequate access to properties for emergency service vehicles.

- *T-A-5:* Major circulation improvements shall be completed as abutting lands develop or redevelop, with dedication of right-of-way and construction of improvements required as a condition of approval.

- *T-A-6:* Development that would necessitate circulation improvements prior to the development of land abutting those improvements to mitigate project traffic impacts shall be prohibited unless the improvements are made a condition of approval.

- *T-A-7:* Circulation improvements that are not tied to abutting development, but are necessary to address traffic impacts of the major development, should be completed before or concurrent with construction of the major new development.

- *T-A-8:* The development of private streets in new residential projects is discouraged, except in extraordinary circumstances, such as environmental constraints and the desire to limit grading and impacts to native trees, or a determination by the City Engineer that the street is not a

component of the main circulation system of the City (e.g., providing through access to other areas).

- *T-A-9:* Street and traffic control development fees shall be assessed on all new development sufficient to fund system-wide capacity improvements. The fee schedule shall be periodically reviewed and revised as necessary.
- *T-A-10:* The City will aggressively pursue state and federal funding to implement circulation improvements where consistent with adopted goals and policies.
- *T-A-12:* The City will strive to complete links in the existing street system to improve continuity and provide emergency vehicle access, consistent with existing neighborhood character and pedestrian safety, subject to fiscal and physical limitations.
- *T-A-16:* Work with the California Department of Transportation (Caltrans), Sonoma County and the Sonoma County Transportation Authority (SCTA) to plan and implement improvements to the Highway 101 interchanges at Dry Creek and Westside Roads, based on a fair share formula for cooperative funding of improvements among jurisdictions and agencies.
- *T-A-17:* Work with Sonoma County to develop and adopt a fair share contribution formula toward major road improvements in the city. Where development projects in the county increase traffic in the city, work with the County to establish a nexus between these projects and any improvements needed to the city circulation system to accommodate this increase.
- *T-A-32:* The City will seek to improve motor vehicle, bicycle and pedestrian circulation at the intersection of Healdsburg Avenue, Mill Street and Vine Street.
- *T-A-14:* The City will work towards renovating or replacing the Russian River bridge with a sound structure that is aesthetically-pleasing and meets the needs of vehicle, pedestrian and bicycle traffic.
- *T-B-1:* The creation or continuance of traffic hazards is prohibited in new development and other proposals requiring discretionary action by the City.
- *T-B-2:* Special attention will be given to providing adequate corner sight distances at intersections and private access drives and roadways.
- *T-B-3:* A program of identification and surveillance of high traffic accident locations will be maintained, with emphasis on early detection and correction of conditions that could potentially constitute traffic hazards.
- *T-B-4:* Traffic calming measures will be considered to maintain reasonable traffic speeds on city streets and to generally improve streets for pedestrian and bicyclist use.
- *T-C-1:* If future growth in traffic volumes necessitates the removal of on-street parking places to provide additional traffic lanes, the lost spaces shall be replaced within the vicinity, if feasible, provided the replacement spaces do not adversely affect significant trees or other natural features.

- *T-C-2:* New development shall provide an adequate number of off-street parking spaces to accommodate the typical parking demands of the type of proposed development, except in the Downtown Parking Exception Area, where the off-street parking requirement may be waived or reduced.
- *T-C-3:* Exceptions from parking standards may be allowed only under unusual circumstances or if a project is for senior housing or affordable housing.
- *T-C-4:* The City will continue to provide off-street public parking to support businesses in the Downtown Parking Exception Area in order to make the most effective and attractive use of the downtown core while directing parking to its periphery.
- *T-D-1:* The use of alternative transportation modes shall be encouraged by establishing a safe and convenient bicycle and pedestrian network interconnecting residential areas with recreation, shopping and employment areas.
- *T-D-2:* The Foss Creek Pathway shall provide a central bicycle and pedestrian pathway through town.
- *T-E-1:* Ensure that sufficient land is designated in the General Plan for transit facilities, including park-and-ride lots, bus stations and rail transit facilities.
- *T-E-2:* The historic railroad depot shall be the designated multi-modal transit center for Healdsburg. The designation of this facility shall not be deemed to preclude the development of other uses under the General Plan. Other potential transit facility sites may be considered provided they support the railroad depot facility and their effects on circulation and the environment have been fully analyzed.
- *T-E-3:* The City shall encourage Sonoma County Transit to maintain, at a minimum, present level of service in the Healdsburg area.
- *T-E-4:* The City shall work closely with Sonoma County Transit and other transit service providers to develop and maintain public transportation facilities in the community, including park-and-ride lots and rail transit stations that are well planned and convenient to use. These include the park-and-ride lot at the south end of Healdsburg (at Healdsburg Avenue/U.S. 101) and a proposed park-and-ride lot near the train station, since a commuter rail system station is being considered at the site of the City's existing train station.
- *T-E-5:* The City shall maintain its own intra-city transit service as long as the service is financially feasible.
- *T-E-6:* The City shall work closely with Sonoma County Transit in coordinating bus stop locations and bus schedules to facilitate transfers between bus systems.
- *T-E-7:* The City will encourage development of a centrally-located common bus terminus equipped with a permanent shelter and will encourage the County's bus system to coordinate its stops at the common terminus.

- *T-E-8:* The City will continue to maintain a tour bus parking area in the downtown area.
- *T-E-9:* The City will require new public facilities and private developments that are suitably located to provide connections to the Foss Creek Pathway.
- *T-F-1:* Healdsburg Municipal Airport shall continue to be operated as a general aviation airport for the benefit of area residents, tourists and industry. The airport shall also be made available for emergency aviation purposes.
- *T-F-2:* The Healdsburg Municipal Airport shall continue to be operated as an enterprise activity and shall continue to be managed by the Healdsburg Airport Commission.
- *T-F-3:* The policies and capital improvement projects contained in the Airport Master Plan shall be pursued as funding allows.
- *T-F-4* Development of the Airport shall be specific to the Airport and its functions and shall not result in development that would compete with, or otherwise diminish the importance of existing commercial areas within the city.
- *PS-H-1:* The City will expand the community and neighborhood park system with the goal of providing park facilities within reasonable walking distance of all city residential areas.
- *PS-I-1:* The City will develop a pedestrian/hiking system to link city parks and major public open space areas, including the trails systems owned by the Sonoma County Agricultural and Open Space District. The pedestrian/hiking trail system shall provide access to the Russian River and Foss Creek at as many points as possible, consistent with the need for public safety and security of private property owners and the level of liability acceptable to the community.
- *NR-F-1:* The City will encourage the use of transit systems and other alternatives to automobile use
- *NR-F-2:* The City will promote land use patterns that support the use of transit systems and pedestrian and bicycle facilities.
- *CD-A-12:* Gates controlling access to residential subdivisions and multi-family residential development are discouraged.
- *CD-B-2:* Parking lots in the downtown shall be located and designed to avoid interrupting facade continuity and dispersed to promote pedestrian access to downtown.

Policy Implementation Measures

- *T-1:* Maintain an inventory of the most recent available traffic counts. The master list shall be updated with traffic counts taken in connection with project traffic studies and by the City as necessary.

- *T-2:* Prepare and adopt plans for new arterials, roundabouts or extensions of existing streets for development areas. These standards shall reflect the limitations imposed by environmental constraints and existing developments, and should include traffic calming techniques.
- *T-3:* Periodically review proposed roadway improvements, update cost estimates for City-funded improvements, and assess the adequacy of the current road and street development fee schedule to finance the proposed improvements. Adjustments to the development fee schedule shall be made as necessary.
- *T-4:* Seek the earliest possible inclusion of new freeway ramps at Mill Street/Westside Road in the Metropolitan Transportation Commission Regional Transportation Plan. Continue to pursue funding for the construction of the freeway ramps.
- *T-5:* Seek the earliest possible inclusion in the Metropolitan Transportation Commission Regional Transportation Plan and continue to pursue funding for the signalization of the freeway ramps at Dry Creek Road and other improvements necessary to improve the operation of this intersection to an acceptable level of service.
- *T-6:* Improve operating conditions at the intersection of Healdsburg Avenue, Mill Street and Vine Street in conjunction with the Central Healdsburg Entry Special Study Area Plan improvements through modifications to lane configurations and signal phasing or by the construction of a roundabout, if it proves to be feasible from an engineering and financial standpoint.
- *T-7:* Seek new funding sources for repair and maintenance of existing streets.
- *T-8:* Select a design for the renovation or replacement of the Russian River bridge, develop a funding plan, pursue funding and complete its construction at the earliest feasible date.
- *T-9:* Obstacles limiting corner-sight distances at street corners will be identified and removed, as feasible.
- *T-10:* Develop a unified system of informational and directional signs, to include directing pedestrians to businesses outside the Plaza and motorists to public parking. Expand the existing downtown pedestrian signage as necessary to reduce parking demand and traffic congestion.
- *T-11:* Implement the recommendations of the Downtown Parking Study where they are determined to be consistent with the goals and policies of the General Plan.
- *T-12:* Implement the Bicycle & Pedestrian Master Plan and require development projects to be coordinated with the plan.
- *T-13:* Complete gaps in the city's pedestrian and bicycle systems.
- *T-14:* Maintain the city's pedestrian and bicycle systems in good condition.
- *T-15:* Implement the Foss Creek Pathway Plan, as funding allows.

- *T-16:* Work closely with the Sonoma County Transit Authority and other transit service providers to develop and maintain public transportation facilities in the community, including park-and-ride lots and the Intermodal Transportation Center.
- *T-17:* Pursue the policies and capital improvement projects contained in the Airport Master Plan as funding allows.
- *T-18:* Continue to monitor operating conditions at the Vine Street/Matheson Street intersection and install signalization improvements if it falls below an acceptable level of service.
- *T-19:* Install a traffic signal utilizing split phasing for the Front Street and Kennedy Lane approaches and permitted left-turn phasing on Healdsburg Avenue as part of the Russian River Bridge renovation or replacement project.
- *T-20:* Amend the City of Healdsburg's CEQA Implementation Procedures to require traffic impact studies for development projects that meet a specific threshold.
- *T-21:* Identify city circulation improvements that are required entirely or in part by development outside of the city. Based upon this nexus, seek to obtain a fair share of funding for these improvements from Sonoma County and establish a means of collecting fair share contributions at the time of project development in the county.

Additional details for some of these implementation programs are provided below.

- *Construction of on- and off-ramps at Mill Street/Westside Road and U.S. 101 interchange* – This improvement is supported by Implementation Measure T-4, and would result in a significant diversion of traffic from the Central Healdsburg exit and Healdsburg Avenue/Vine Street-Mill Street intersection as trips to and from areas served by Westside Road as well as central Healdsburg would access the freeway via this interchange rather than the existing one at the south end of the City. Because this improvement is included in the City's Capital Improvement Program and results in changed travel patterns, it was included as part of the baseline assumptions for the analysis. The improvements would have a total estimated of $12.3 million; potential funding sources include the City's Streets and Traffic Controls Infrastructure Capacity Charges and Sonoma County, as well as state and federal programs. Because the western half of the interchange is located outside of the Healdsburg city limits in Sonoma County and the entire interchange falls under the jurisdiction of Caltrans, the City does not have complete control over the timing or implementation of these improvements.
- ~~*Signals*~~*Improvements at Dry Creek Road Interchange* – Installation of traffic signals and the widening of both Dry Creek Road and the freeway off-ramps is planned at the Dry Creek Road intersections with the U.S. 101 ramps under Implementation Measure T-5 and are included in the City's Capital Improvement Program. In addition to the signals, the improvements would include left-turn lanes on Dry Creek Road, a slip lane from the northbound off-ramp to eastbound Dry Creek Road and extension of the second westbound through lane from Grove Street to U.S. 101

North where it would become a right-turn only lane. The improvements would result in LOS C operation for the south ramps and LOS D for the north ramps, and have a total estimated cost of ~~$1.5 to $2.0~~$4.2 million. Potential funding sources include the City's Streets and Traffic Controls Infrastructure Capacity Charges and Sonoma County, as well as state and federal programs. Total City funding for the project to date is $675,324. ~~The City of Healdsburg collects traffic impact fees from development projects to fund various projects, including the partial funding of traffic signals at the Dry Creek Road/U.S. 101 interchange.~~ Because the western half of the interchange is located outside of the Healdsburg city limits in Sonoma County and the entire interchange falls under the jurisdiction of Caltrans, the City does not have control over the timing or implementation of these improvements.

- *Improvements at Healdsburg Avenue/Vine Street-Mill Street* – Two options for achieving acceptable operating conditions under build out traffic volumes are being considered – a roundabout and modifications to lane configurations and signal phasing. Based on projected volumes, the roundabout would need to have two circulating lanes from northbound Healdsburg Avenue to Vine Street and a right turn slip lane from southbound Vine Street to westbound Mill Street. With this configuration LOS B operation would be expected under future conditions.

  Since conversion to roundabout control requires approvals by agencies external to the City due to the presence of the railroad tracks through the intersection, this may prove to be an infeasible option. If instead the existing signalized configuration is to be maintained, the center lane on northbound Healdsburg Avenue (currently the through lane) would need to be converted to a left-turn lane directed toward Vine Street, with the curb lane (currently a right-turn only lane) used for through and right-turn movements. The existing northbound left-turn lane would be dedicated to westbound left turns on to Mill Street. Phasing of the intersection would need to be adjusted to allow the northbound turn to Vine Street to occur simultaneously with the southbound movement from Vine Street, while maintaining a red indication for left-turns to Mill Street. This would require use of programmed visibility signal heads and potentially other specialty signing as this would be an unusual configuration. Additionally, the lanes on the eastbound Mill Street approach would need to be reassigned to a left-turn lane and a shared through/right-turn lane. These changes would also allow the intersection to operate acceptably at LOS D.

ENVIRONMENTAL IMPACTS

Methodology

Project impacts were assessed based upon a comparison between existing conditions (baseline), as described in the *Healdsburg 2030 General Plan Background Report* and future buildout conditions. For the purpose of this analysis, future conditions are based on the land uses and transportation improvements described in the proposed General Plan.

Thresholds of Significance

The proposed Project would have a significant impact related to traffic or circulation if it resulted in impacts to the following.

Intersections

An impact on intersection operation would be considered significant if:

(a) The addition of traffic generated by a project degrades the peak-period LOS of an all-way stop-controlled or signalized intersection from A, B, C or D (without the project) to E or F (with the project);

(b) The addition of Project-generated traffic degrades the overall operation on a minor, stop-controlled approach to an unsignalized intersection from LOS A, B, C, D or E (without the project) to LOS F (with the project) *and* the affected approach or movement serves 25 or more vehicles per hour; or

(c) The LOS (without project) is E or F and Project-generated traffic would increase the peak-period average vehicle delay by 5 seconds or more.

Freeway Facilities

An impact on the freeway system is considered significant if the proposed Project would:

(a) Result in off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway; or

(b) Result in Project traffic increases that cause the freeway LOS to deteriorate below C.

Roadway Facilities

An impact on roadway facilities is considered significant if the proposed Project would result in public streets with widths less than the minimum standards, as specified in the City's design criteria.

Pedestrian Facilities

An impact on pedestrian facilities is considered significant if the proposed Project would result in unsafe conditions for pedestrians, including an unsafe increase in pedestrian/bicycle or pedestrian/motor vehicle conflicts.

Bicycle Facilities

An impact on bicycle facilities is considered significant if the proposed Project would:

(a) Hinder or eliminate an existing designated bikeway, or interfere with the implementation of a proposed bikeway; or

(b) Result in unsafe conditions for bicyclists, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

Transit Facilities

An impact on the transit system is considered significant if the proposed Project would generate an increase in ridership, which when added to existing or future ridership exceeds available or planned system capacity. Capacity is defined as the total number of passengers that the system of buses can carry during the peak hours of operation.

Parking

An impact on parking is considered significant if the anticipated parking demand of the proposed Project would exceed the available or planned parking supply.

Hazards

An impact is considered significant if the proposed Project would substantially increase hazards due to a design feature or incompatible uses.

Air Traffic

An impact is considered significant if the proposed Project would 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.

Project Impacts

Impact IV.O-1: The proposed Project would result in unacceptable operating conditions in the short-term at one of the study intersections, resulting in a significant and unavoidable impact in the long term if planned improvements are not allowed by Caltrans.

A comprehensive analysis of the potential transportation impacts associated with the proposed Project was prepared based on the potential development that could occur through buildout under the proposed General Plan, as shown in Appendix C of this Revised Draft EIR.

Trip Generation

Trip generation rates have long been an established tool used by traffic engineers and transportation planners to estimate the likely traffic activity of a future project. They are used to evaluate the potential impacts of a single project or, when incorporated into a city-wide analysis such as this, to plan transportation facility improvements.

For purposes of estimating the number of trips which the anticipated future development would be expected to generate, *Trip Generation*, 7th Edition, 2003, by the Institute of Transportation Engineers

(ITE) was used. This is a standard reference used by jurisdictions throughout the country, and is based on actual trip generation studies performed at numerous locations in areas of various populations.

For this analysis, various ITE rates were used for the different land use categories, including General Light Industrial (LU #110), Single Family Detached Dwelling (LU #210), Low-Rise Apartment (LU #221), Resort Hotel (LU #330), General Office Building (LU #710), Specialty Retail (LU #814) and High Quality Restaurant (LU #931). Additionally, rates developed specifically for the City were applied to a proposed fire station and data from the San Diego Association of Governments (SANDAG) was used for the Community Park that has been approved north of the Parkland Farms area. Based on the applied assumptions, the future development expected within the city's planning area is projected to generate an average of 56,459 additional trip ends per day, including 4,353 occurring during the evening peak hour. The land use assumptions, trip generation rates, and resulting trip ends are summarized in Table IV.O-5.

Table IV.O-5
Additional Vehicle Trips Associated with Buildout

Land Use	Development Potential	Daily Trips		PM Peak Hour Trips	
		Rate	Trips	Rate	Trips
General Industrial	1,014,118 sq. ft.	6.97/ksf	7,068	0.98/ksf	994
Single Family Dwelling	630 units	9.57/du	6,029	1.01/du	636
Apartment	242 units	6.59/du	1,595	0.58/du	140
Hotel	339 rooms	8.17/room	2,770	0.49/room	166
Office	20,000 sq. ft.	19.32/ksf	386	1.49/ksf	30
Retail*	844,191 sq. ft.	44.32/ksf	37,415	2.71/ksf	2,288
Restaurant	135 seats	2.86/seat	386	0.26/seat	36
Park, Fire Station	n/a	n/a	810	n/a	63
		Total New Trips	**56,459**		**4,353**

** The 200,000 sq. ft. of commercial space at the Saggio Hills site is included in the rates for the hotel rooms plus the 135-seat restaurant per the project's certified EIR.*

Source: Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003; compiled by Whitlock & Weinberger Transportation, Inc.

The trip generation reflected by Table IV.O-5 is based on the most current development projections available. However, the analysis of potential impacts that follows in this section was based on earlier information prepared for the February 2008 Draft EIR, which resulted in an estimated increase of 4,548 PM peak hour trips. Since the current projection is nearly 200 trips (i.e., four percent) less than what was used in the analysis, the evaluation was not updated, as it is slightly conservative due to the inclusion of more trips than are now anticipated. The reduction in trips does not, however, change any of the results sufficiently to revise any of the conclusions indicated.

Distribution

Project trips were distributed to the surrounding circulation system based on factors such as the locations of schools and other activity centers as well as census data. According to the 2000 U.S. Census, 63.8 percent of Healdsburg residents commuted south to work, 1.7 percent commuted north, and the remaining 34.5 percent of jobs were held by Healdsburg residents. The Census also provides data regarding the residency of persons who work in the city, and about 31.6 percent of all jobs in Healdsburg were held by its residents, while 62.50 percent of employees came from the south of the city and 5.9 percent from the north. These patterns were used to determine trip assignments within or external to the city, with one set of assumptions applied to residential land uses and another to retail, office, industrial and other commercial land uses. Additionally, to avoid double-counting of trips between new residential uses and new commercial enterprises, steps were taken to assign 35 percent of residential trips such that they would not affect any of the study intersections. It should be noted that the analysis network includes only those street links connecting study intersections even though other circulation options exist in many areas. As a result, all of the anticipated increase in traffic is assigned through the study intersections, which may result in impacts being overstated at some locations.

External Trips

Since development in areas outside the city will also contribute new trips to city streets, link volumes were obtained from the Sonoma County Transportation Agency's travel demand model for streets that enter the city, including Healdsburg Avenue to the north and south and Dry Creek Road and Westside Road from the west. These directional volumes were compared to projected future link volumes based on build out of the city, and external trips added as appropriate to achieve consistency with the model's future volumes.

Future Operating Conditions

Upon adding the trips indicated in Table IV.O-5 as well as those for growth surrounding the city to the street network, and assuming the infrastructure improvements identified above, all of the study intersections are projected to operate at or above the minimum standard of LOS D during the PM peak hour, as summarized in Table IV.O-6. Trips at study area intersections under buildout traffic volumes are illustrated in Figure IV.O-5. Copies of the calculation worksheets are presented in Appendix F of this Revised Draft EIR.

It should be noted that at some locations the average delay under future volumes is actually lower than under existing volumes. While this intuitively appears unreasonable, this occurs when the Project trips are added predominantly to movements or approaches that have available capacity and/or are operating with delay that is below the average, resulting in a net reduction in overall average delay. For instance, the volumes added at Healdsburg Avenue/Parkland Farms Boulevard are predominantly through trips, which experience lower than average delays. Increasing the volume on these movements results in a lower average for the intersection overall when the weighted average delay is calculated.

Table IV.O-6
Summary of Future Intersection Operation – PM Peak Hour*

Intersection	*Approach*	Future Conditions	
		Delay	**LOS**
1	Healdsburg / Parkland Farms	8.8	A
2	Healdsburg / Grove	14.5	B
3	Healdsburg / Sunnyvale	1.6	A
	Westbound Approach	*15.9*	*C*
4	U.S. 101 South Ramps / Dry Creek	27.4	C[1]
5	U.S. 101 North Ramps / Dry Creek	40.6	D[1]
6	Grove / Dry Creek	37.0	D
7	Healdsburg / Dry Creek - March	31.3	C
8	University / March	8.9	A
9	Healdsburg / Powell	16.3	B
10	Fitch / Powell	3.6	A
	Northbound Approach	12.4	B
11	University / Powell	11.2	B
12	Grove / West Grant	11.7	B
13	Healdsburg / Grant	15.7	B
14	Fitch / Grant	7.8	A
15	University / Grant	1.6	A
	Eastbound Approach	*10.1*	*B*
16	Healdsburg / Piper	16.1	B
17	Healdsburg / North	12.3	B
18	Vine / Matheson	19.3	B[1]
19	Healdsburg / Matheson	20.3	C
20	Fitch / Matheson	9.0	A
21	University / Matheson	11.0	B
22	U.S. 101 North Ramp / Mill	10.6	B
	Eastbound Left-turn	*33.5*	*D*
23	U.S. 101 South Ramp / Westside	9.3	A
	Southbound Approach	*49.0*	*E*
24	Healdsburg / Vine - Mill	54.8	D
25	Healdsburg / Exchange	14.6	B
26	Healdsburg / Front - Kennedy	6.6	A
	Northbound Approach	*15.5*	*C*
	Southbound Approach	*29.8*	*D*
27	U.S. 101 South Ramps / Old Redwood Hwy	11.0	B
	Southbound Approach	*31.7*	*D*
28	U.S. 101 North Ramps/Healdsburg	4.6	A
	Northbound Approach	*13.8*	*B*

** Includes traffic related to development outside of the Healdsburg UGB*
[1] *With signalization*
Source: Whitlock & Weinberger Transportation, Inc., 2008.

Figure IV.O-5 Buildout Traffic Volumes

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The proposed General Plan contains a number of policies and associated implementation programs that would reduce potential circulation impacts. Policies LU-F-1, LU-F-2, ED-B-4, T-A-5, T-A-6, T-A-7, T-A-9, T-A-10, T-A-13, PS-H-1, NR-F-1, and NR-F-2 address the need to reduce reliance on passenger vehicles and transfer some trips to alternative modes and provide increased capacity through infrastructure improvements. Implementation Measures T-2, T-3, T-14, T-4, T-5 and T-6, T-20 and T-21 provide programs to construct improvements that will increase capacity, promote development patterns that support increased use of alternative modes, and provide improved pedestrian, bicycle and transit infrastructure to allow drivers to change mode. Implementation of these programs would limit potential impacts associated with buildout traffic to a ***less than significant*** level with the exception of impacts on the Dry Creek Road/U.S. 101 interchange, which would be ***significant and unavoidable*** if Caltrans does not cooperate in allowing the planned improvements to move forward.

Impact IV.O-2: The proposed Project would not result in unsafe conditions for pedestrians, including an unsafe increase in pedestrian/bicycle or pedestrian/motor vehicle conflicts.

Buildout of the city under the proposed Project with the associated land use changes and increases in vehicular traffic could discourage or interfere with pedestrian circulation if appropriate measures to facilitate safe and convenient pedestrian travel, such as sidewalks on new streets or crosswalks at locations with substantial pedestrian activity, are not provided. The proposed Project, with its increase in residential units and commercial areas, would generate a substantial demand for safe and convenient pedestrian facilities.

Proposed General Plan Policies T-A-14, T-D-1, T-D-5, T-E-9, PS-H-1, PS-I-1, and NR-F-2 specifically address the need to provide appropriate pedestrian facilities, fill in gaps in the network, and improve pedestrian safety and access. Implementation Measures T-8, T-13, T-14, T-15 and T-17 provide programs to develop the pedestrian infrastructure needed to accommodate the proposed development. Implementation Measure T-17 will significantly improve pedestrian safety by providing a pathway separate from motor vehicle traffic. Implementation of these policies and projects will result in new pedestrian connections, sidewalks, crossing enhancements, amenities, and pedestrian programs to serve both existing and future demand in Healdsburg in a safe manner. Therefore, impacts related to pedestrian circulation would be ***beneficial***.

Impact IV.O-3: The proposed Project would not discourage or interfere with bicycle circulation and would meet the need for new bicycle facilities and safety enhancements.

Both residential and non-residential development as well as increases in tourism resulting from the proposed Project would generate increased demand for safe and convenient bicycle facilities, including new bicycle paths, lanes and routes; short- and long-term bicycle parking and storage facilities; additional bicycle capacity on transit; and enhancements to existing bicycle infrastructure.

Proposed General Plan Policies T-A-14, T-D-1, T-D-2, T-D-3, T-D-4, T-D-5, T-E-9, and NR-F-2 specifically address the need to provide appropriate bicycle facilities, including new trails and bike lanes,

to improve bicycle access. Implementation Measures T-12, T-14, T-16, and T-17 provide programs to develop the bicycle infrastructure needed to accommodate the development included in the proposed General Plan.

Implementation of the bicycle specific policies and projects contained in the proposed General Plan will result in new bikeways, bicycle parking, and bicycle programs to serve both existing and future demand in Healdsburg. Therefore, impacts related to bicycle circulation would be ***beneficial.***

Impact IV.O-4: Implementation of the proposed Project would not discourage or interfere with transit access and would not create additional transit ridership that would exceed available or planned system capacity.

Residential and non-residential development under the proposed Project would generate increased demand for transit service, together with the need for new facilities and enhancements to existing infrastructure. New residential development in the outlying areas of Healdsburg would generate the need for expanded fixed transit service in these new neighborhoods.

Proposed General Plan Policies LU-F-1, LU-F-2, T-E-1, T-E-2, T-E-3, T-E-4, T-E-5, T-E-6, T-E-7, T-E-8, NR-F-2 and Implementation Measure T-18 specifically promote appropriate transit service and facilities for development that could occur under the proposed Project. Existing transit service has considerable capacity available to accommodate such increased ridership; therefore there would no adverse impact by the project on transit. Additional capacity will also be provided in the future when SMART passenger rail service is initiated. On July 16, 2008, the SMART Board of Directors certified a Supplemental EIR for the SMART project. A local sales tax measure intended to provide partial SMART train funding passed in November 2008 and service is projected to begin in 2013.

Implementation of the transit-specific policies and projects contained in the proposed General Plan will promote new transit services, amenities, and programs to serve both existing and future demand in the city. Therefore, impacts related to transit access would be ***beneficial***.

Impact IV.O-5: Implementation of the proposed Project would not result in an increased parking demand that could not be accommodated by the available parking supply.

Residential and non-residential development under the proposed Project would generate the demand for additional parking on both existing streets and within future development sites.

Proposed General Plan Policies T-C-1, T-C-2, T-C-3, T-C-4, T-E-8, and CD-B-2 specifically address the need to provide adequate parking for existing land uses as well as new development. Implementation Measures T-10 and T-11 will provide programs to implement the recommendations of the Downtown Parking Study and provide enhanced directional signing to support better utilization of the available parking.

Implementation of the policies and programs relative to parking provided in the proposed General Plan will require all new development to provide an adequate parking supply and result in identification of existing deficiencies and better management of this valuable resource. Therefore, impacts related to the adequacy of parking would be ***less than significant.***

Impact IV.O-6: Implementation of the proposed Project would not result in increased hazards associated with new streets and street connections as well as with traffic added to existing streets.

Future development under the proposed project would create new streets and new intersections that could present potential hazards. Furthermore, the additional traffic generated by new development could pose safety concerns on existing streets.

Proposed General Plan Policies T-B-1, T-B-2, T-B-3, and T-B-4 specifically address the need to meet design standards intended to promote safety on both new and existing streets, provide adequate sight distance at intersections, identify high collision locations and address any deficiencies, and implement traffic calming measures to retain the character of residential streets. Implementation Measure T-9 will provide a program to ensure that adequate sight distance exists at corners of public intersections.

Implementation of the policies and program relative to safety provided in the proposed General Plan would result in the development and maintenance of a street system that meets minimum adopted standards and avoids introducing any new hazards. Therefore, impacts related to hazards associated with new streets, street connections, and traffic added to existing streets would be ***less than significant.***

Impact IV.O-7: Implementation of the proposed Project would not result in changes in air traffic patterns.

Proposed General Plan Policies T-F-1, T-F-2, T-F-3, and T-F-4 provide for the continued operation of the Healdsburg Municipal Airport to serve the needs of city residents, resulting in no change in air traffic patterns. Implementation Measure T-19 supports the pursuit of policies and capital improvement projects contained in the Airport Master Plan as funding allows.

Implementation of the policies and programs relative to the Healdsburg Municipal Airport will allow continued utilization of the airport, resulting in impacts that would be ***less than significant.***

CUMULATIVE IMPACTS

The cumulative impact of traffic associated with development outside the Healdsburg Urban Growth Boundary on specific intersections is evaluated in the previous section.

Development under the proposed General Plan would contribute to the cumulative increase in traffic on U.S. Highway 101 that would cause operation to deteriorate below LOS C. The *US 101 HOV Lane Widening and Improvements Project Environmental Assessment/Environmental Impact Report: Highway 101 from Steele Lane to Windsor River Road*, Caltrans, 2006, includes the most recent available future

traffic volume projections for the freeway in the area north of Santa Rosa. Projections are available for the freeway segment spanning the Windsor River Road interchange, which is located approximately four miles south of Healdsburg. For the purposes of this analysis, the projected volumes for this segment of freeway were also conservatively applied to the adjacent study segment between Old Redwood Highway and Arata Lane, which are expected to be similar but slightly lower.

The applied Caltrans traffic volume projections were developed using countywide land use data included in the Sonoma County Travel Demand Model, as maintained by the Sonoma County Transportation Authority. Future land use assumptions already include buildout of the current General Plan, which is substantially similar to the buildout assumptions included in the proposed General Plan. For this reason, to establish "no project" volumes, the anticipated traffic volumes on U.S. Highway 101 that are attributable to new development occurring with buildout of the proposed Project were deducted from the future Caltrans freeway projections. Under the resulting volumes, the freeway would be expected to continue operating acceptably at LOS C, with densities of 21.9 pc/mi/ln and 25.6 pc/mi/ln in the northbound and southbound directions respectively.

The vehicle trips projected to be added to the freeway through buildout of the proposed Project are shown in Table IV.O-7.

Table IV.O-7
Freeway Segment Traffic Volumes – Vehicles per PM Peak Hour

U.S. Highway 101 – Old Redwood Highway to Arata Lane	Northbound	Southbound
Future without proposed General Plan Volumes	2744	3165
Proposed General Plan Volumes	660	689
Future plus proposed General Plan Volumes	3404	3854
Source: Whitlock & Weinberger Transportation, Inc., 2007.		

Traffic associated with buildout of the proposed Project, when considered along with buildout of neighboring communities, would result in a decrease in U.S. Highway 101 service levels between Arata Lane and Old Redwood Highway below the LOS C/D threshold considered by Caltrans to represent acceptable operation.

The City, County, and Sonoma County Transportation Authority (SCTA) recognize that U.S. Highway 101 will experience congestion into the foreseeable future, and major capacity enhancements, such as expansions or new freeways, are unlikely to be built north of the Town of Windsor. All three jurisdictions concur in various planning and policy documents that long-range solutions to regional mobility must focus on better land use planning that supports transit and alternative transportation modes, stronger jobs-housing balances, and increased support of transportation demand measures. The proposed General Plan emphasizes each of these goals through policies such as Policies LU-F-1, LU-F-2, F-7, T-D-

1, T-E-1, NR-F-1, and NF-F-2 together with Implementation Measure T-18. However, even with the adoption of the policies and implementation measure indicated above, the impact of buildout under the proposed General Plan on U.S. Highway 101, in conjunction with development in neighboring communities, would be ***significant and unavoidable***.

MITIGATION MEASURES

With implementation of proposed General Plan policies and implementation measures, Project-related impacts on intersections, pedestrian and bicycle circulation, transit, parking, and hazards. No mitigation measures would be required for Impacts IV.O-1 through IV.O-6.

However, impacts to traffic service levels at the Dry Creek Road/U.S. Highway 101 interchange are considered ***significant and unavoidable*** unless Caltrans supports planned improvements to the interchange.