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EA: 193200  
November 2000

# I-5/Hasley Canyon Road Interchange Project

## DRAFT

### INITIAL STUDY/ENVIRONMENTAL ASSESSMENT

STATE OF CALIFORNIA  
Department of Transportation

and

U.S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration

Pursuant to:  
42 U.S.C. 4332(2)(c)

  
for Raja Mitwasi  
Caltrans District 7  
District Division Chief  
California Department of Transportation

NOV 22, 2000  
Date

  
Michael G. Ritchie  
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12/4/00  
Date

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## NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

### Description

The proposed project would improve the Interstate 5 (I-5)/Hasley Canyon Road interchange, located in Los Angeles County, north of the City of Santa Clarita. In the area of the project, Interstate 5 is an 8-lane freeway separated by an unpaved median. The topography of the area is sloping towards Castaic Creek. Land uses within and surrounding the project are residential, commercial, and open space. Proposed improvements include the replacement of the I-5/Hasley Canyon Road Overcrossing, modifying the existing ramp configuration, and widening of local roads.

### Determination

An Initial Study (IS) has been prepared for the California Department of Transportation. On the basis of this study, it is determined that the proposed action will not have a significant effect upon the environment for the following reasons:

1. There will be no significant amount of siltation by wind or water, or erosion as a result of this project.
2. Air quality, noise, or use of natural resources will not be significantly affected by this project.
3. No significant changes to existing lighting or glare conditions would result from this project.
4. Fish and wildlife such as endangered species, habitat or vegetation will not be significantly impacted by this project.
5. Floodplains, wetlands, and water quality will not be significantly impacted by this project.
6. No effect on agricultural lands, land use, or growth will originate from this project.
7. No public or recreational facilities, historic or archaeological sites, structures of architectural significance, important agricultural or scenic resources will be affected by this project.
8. No adverse effects on employment, industry, or economic stability of the area will result from this project.

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Ronald J. Kosinki  
Acting Division Chief  
California Department of Transportation

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Date

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# Acronyms

22 CCR	Title 22 of the California Code of Regulations
ACOE	U.S. Army Corps of Engineers
ADT	average daily traffic
APE	Area of Potential Effects
BMP	best management practice
CAAA	Federal Clean Air Act Amendments
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
cfs	cubic feet per second
Checklist	Environmental Significance Checklist
City	City of Santa Clarita
CMP/CIP	Congestion Management Program/Capital Improvement Program
cms	cubic meters per second
CO	carbon monoxide
County	Los Angeles County
dBA	decibels A-weighted
DTSC	California Department of Toxic Substances Control
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection & Policy Act
FRTIP	Federal Regional Transportation Improvement Plan
HPSR	Historic Property Survey Report
I-5	Interstate 5
ICU	intersection capacity utilization

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IS/EA	Initial Study/Environmental Assessment
ISA	Initial Site Assessment
km	kilometer
KP	kiloposts
LACDPW	Los Angeles County Department of Public Works
LACMTA	Los Angeles County Metropolitan Transportation Authority
L <sub>dn</sub>	day-night sound level
L <sub>eq</sub>	equivalent steady-state sound level
L <sub>max</sub>	maximum sound level in a specific time period
LOS	level of service
LROP	Long-Range Operation Plan
mg/L	milligrams per liter
NAC	noise abatement criteria
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NES	Natural Environment Study (BonTerra Consulting, 2000)
NHS	National Highway System
NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRMP	Natural River Management Plan
NWS	National Weather Service
parclo	partial cloverleaf
PDT	Project Development Team
PEER	Preliminary Environmental Evaluation Report
PM	postmile
PM <sub>10</sub>	respirable particulate matter with a diameter < 10 micrometers
ppm	parts per million
PSR	Project Study Report
ROC	reactive organic compounds
RSTP	Regional Surface Transportation Project

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RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Los Angeles Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SHELL	state highway extra legal load
SI	Site Investigation
SIP	State Implementation Plan
SNA	Significant Natural Area
SR	State Route
SSP	Standard Special Provisions
STIP	State Transportation Improvement Program
SWPPP	Stormwater Pollution Prevention Plan
TASAS	Traffic Accident Surveillance and Analysis System
TCR	Transportation Concept Report
TDS	total dissolved solids
UST	underground storage tank
V/C	volume to capacity

# Section 1

## Purpose and Need

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### 1.1 Purpose of the Proposed Project

The proposed project would reconstruct and reconfigure the existing interchange at the intersection of Interstate 5 (I-5) and Hasley Canyon Road (formerly named Backer Road), located northwest of the City of Santa Clarita in Los Angeles County (Figures 1A and 1B). The project would achieve the following objectives:

- Increase capacity and improve local access and circulation
- Improve the operation of the interchange
- Incorporate planned infrastructure improvements
- Enhance safety
- Accommodate planned growth within the study area

Specifically, the project would improve the level of service (LOS), reduce travel time, and meet the economic demand for access to Valencia Commerce Center.

### 1.2 Need for the Project

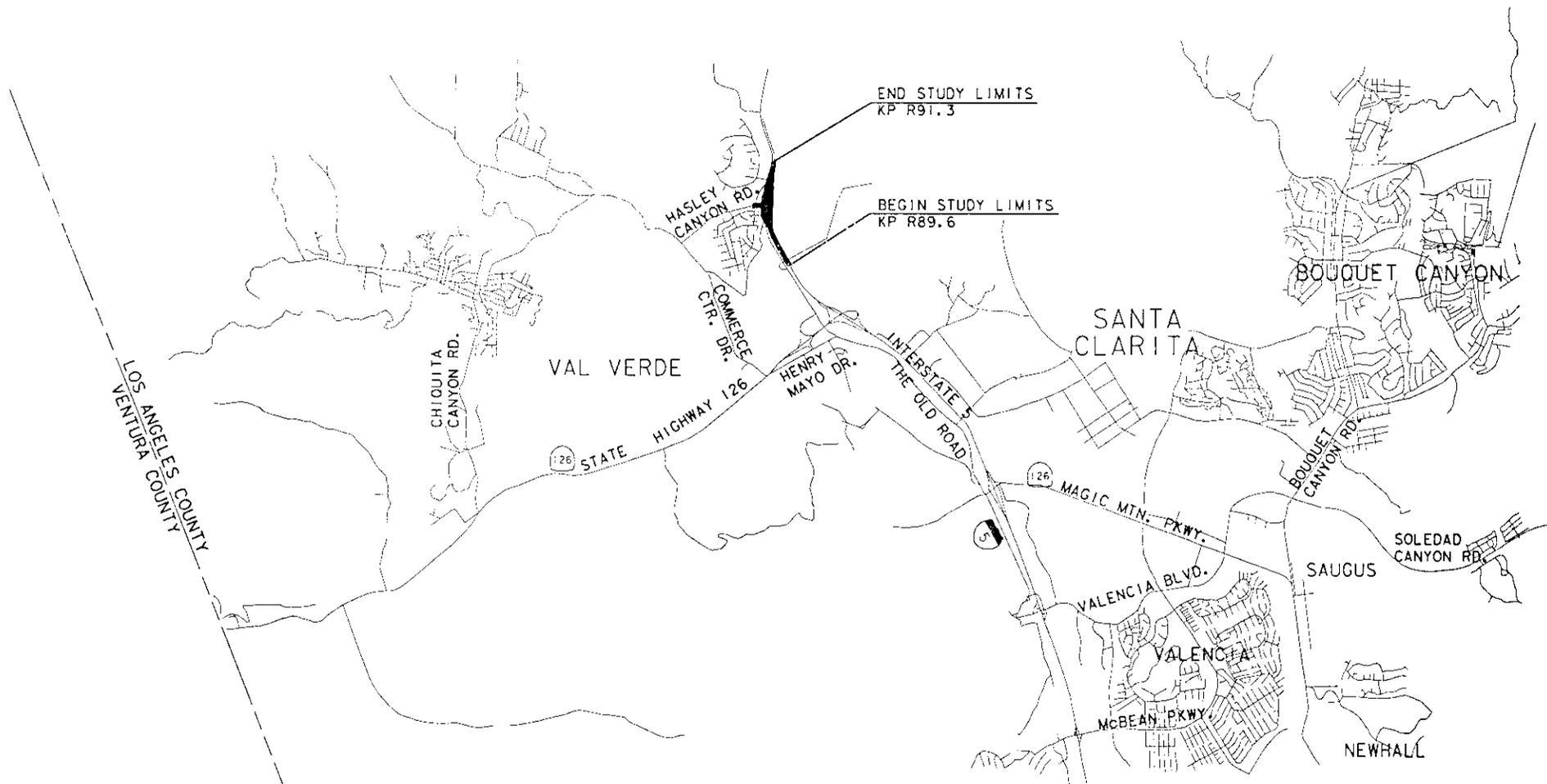
This section specifies the need for the proposed reconfiguration of the I-5/Hasley Canyon Road interchange. The discussion below focuses on deficiencies in the existing conditions, constraints in capacity of the existing interchange and signalized intersection, and accident rates.

#### 1.2.1 Operational Deficiencies

I-5 is a major north/south freeway connecting the states of California, Oregon, and Washington. It is part of the Interstate System of highways and is used as a major local and regional truck route. I-5 is included in the National Highway System (NHS), and is listed on the State Highway Extra Legal Load (SHELL) Route System. These systems list those highways that have been constructed to accommodate the high volume and weight of inter- and intrastate truck traffic. The California Highway Commission adopted I-5 as a freeway in April 1950, and the State of California and Los Angeles County signed the original freeway agreement for I-5 in the project area in June 1962. The freeway agreement was superseded in December 1985 because of the greater-than-anticipated traffic volumes and industrial developments in the project area that required additional connections from the freeway to the county highway system.

Hasley Canyon Road crosses I-5 in Castaic, California, 1.6 kilometers north of State Route 126 (SR-126). Construction of a diamond interchange and a two-lane overcrossing at Hasley Canyon Road was completed in November 1968. The original contract plans





Project Area Location  
 Improvements on I-5/Hasley Canyon Road  
 07-LA-5 KP R89.6-R91.3 (PM R55.7-R56.8)



NO SCALE  
 LOCATION MAP  
 FIGURE 1B

considered future overcrossing deck widening on the southern side of the structure. Sufficient right-of-way was acquired at that time to accommodate a major highway (Backer Road) approaching from the west. Hasley Canyon Road is classified as a major road on the County Highway Plan, and it ends immediately east of the I-5 northbound ramps. West of I-5, Hasley Canyon Road crosses The Old Road and extends as a four-lane divided road providing access to the adjacent residential and commercial developments north and south, and it branches off further west into two separate roads. The northerly portion of Hasley Canyon Road is a two-lane arterial serving the area northwest of I-5. The southerly portion, called Commerce Center Drive, extends southward as a four-lane road. Commerce Center Drive is being constructed in the vicinity of SR-126 to cross Castaic Creek and intersect SR-126 as a signalized intersection.

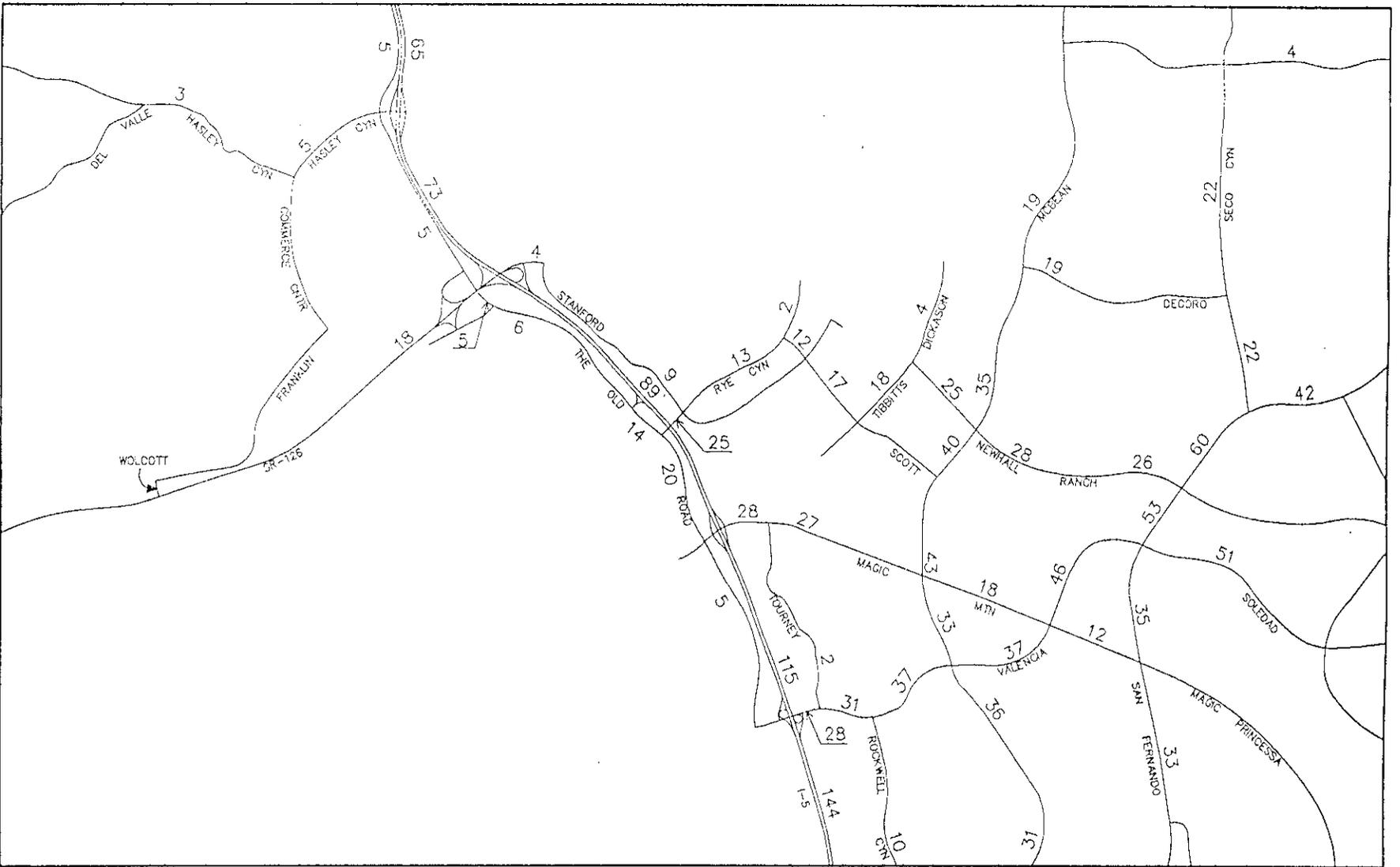
The Valencia Company (a subsidiary of the Newhall Land and Farming Company), as well as other developers within the Santa Clarita Valley, have developed residential and commercial properties north of SR-126 and west of I-5 during recent years and have additional development activities planned in the future at the Valencia Commerce Center. This Center is intended to be developed as the hub of a major commercial/industrial region. The Center is forecasted to grow from approximately 200,000 square meters today to approximately 1.2 million square meters by the year 2020, resulting in a large employment area west of the I-5/Hasley Canyon Road interchange. The buildout of the Valencia Commerce Center is projected to add approximately 110,000 trips per day to the network. The existing two-lane overcrossing at Hasley Canyon Road will not accommodate the demand without considerable delays.

Proposed developments along Commerce Center Drive and Hasley Canyon Road will generate additional traffic on I-5, which will warrant improvements to the interchange to reduce delay and to improve safety and traffic circulation. It is proposed to improve the I-5/Hasley Canyon Road interchange by widening the Hasley Canyon Road overcrossing and modifying the existing ramps (see Section 2).

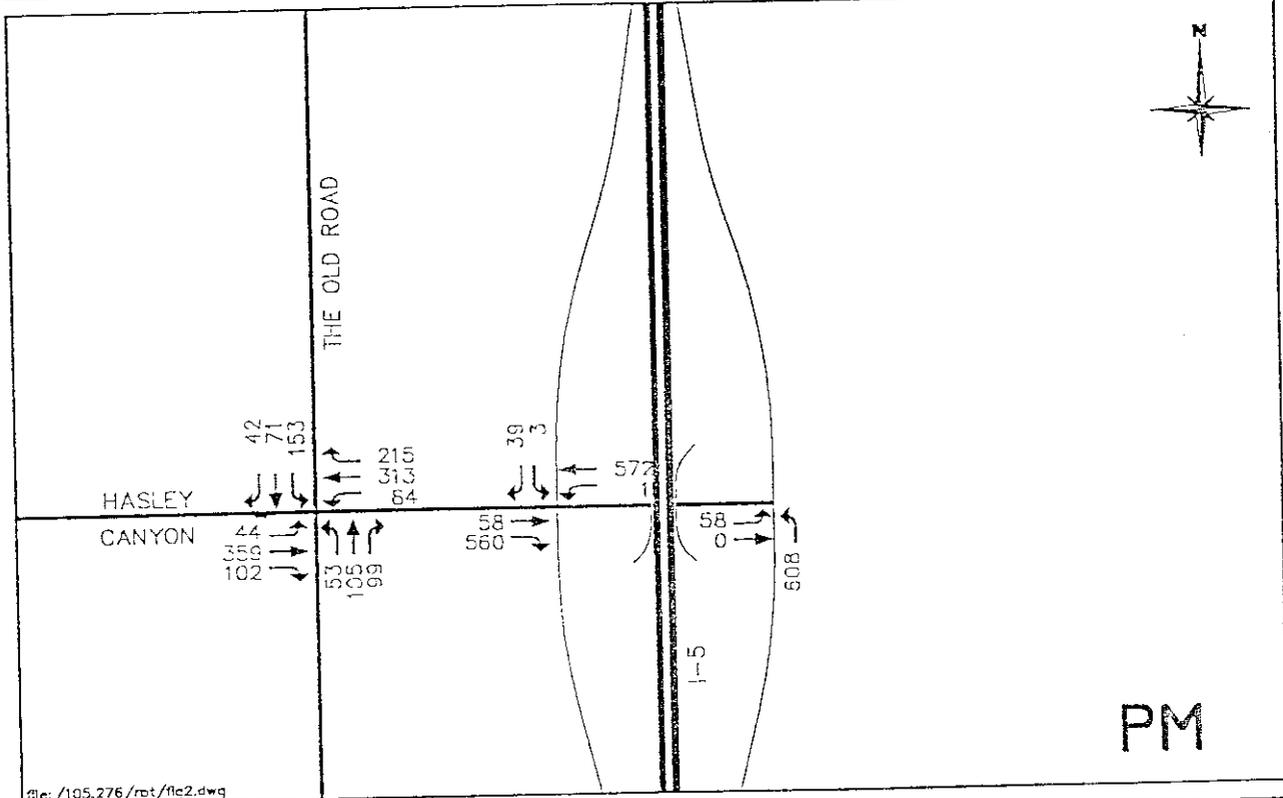
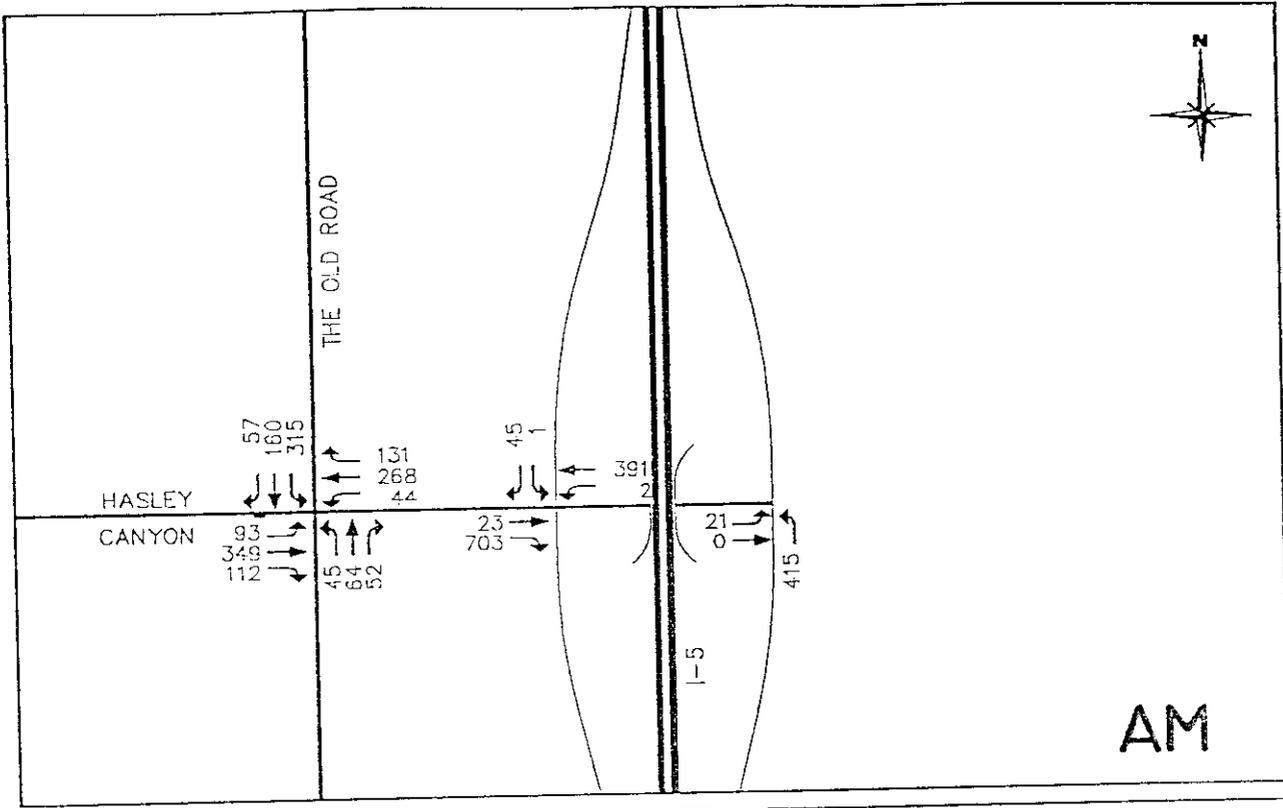
### 1.2.2 Capacity Constraints

Existing (1997) average daily traffic (ADT) volumes for the I-5 corridor and adjacent arterials are shown in Figure 2. Existing peak-hour volumes at the I-5/Hasley Canyon Road interchange are detailed in Figure 3. The existing traffic volumes and turning movements are accommodated to an acceptable level. However, buildout of the Valencia Commerce Center and other area development is conservatively assumed to occur by 2020. This will considerably increase traffic volumes within the study area. Forecasts for the 2020 No-Build Alternative (Figure 4) indicate that the A.M. peak-hour volumes on the I-5 northbound exit ramp is projected to increase from 415 vehicles to 2,100 vehicles; the P.M. peak-hour traffic volume on the southbound on-ramp is projected to increase from 561 vehicles to 2,100 vehicles. This will increase the peak-hour volume on Hasley Canyon Road from 573 to 1,700 for the westbound direction and from 61 vehicles to 800 vehicles in the eastbound direction between the ramps. There is projected to be an average four-fold increase in traffic within the interchange over the next 20 years, and the existing ramp intersection will not be able to provide sufficient capacity for these traffic volumes.

An intersection capacity utilization (ICU) analysis was conducted for Hasley Canyon Road and the I-5 ramps (Austin-Foust, 1999). Refer to Table 1-1 for descriptions of the various LOS and volume to capacity (V/C) ratios. The V/C ratios of the existing intersections along

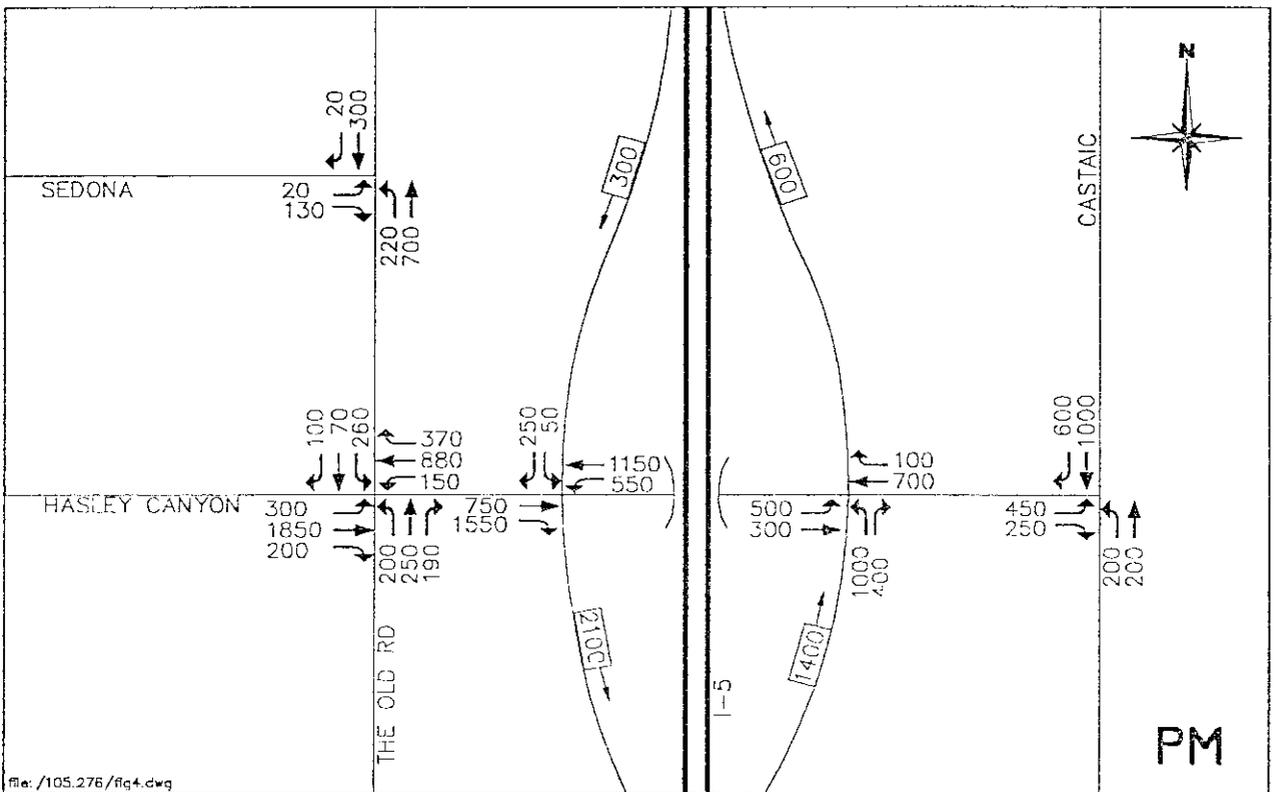
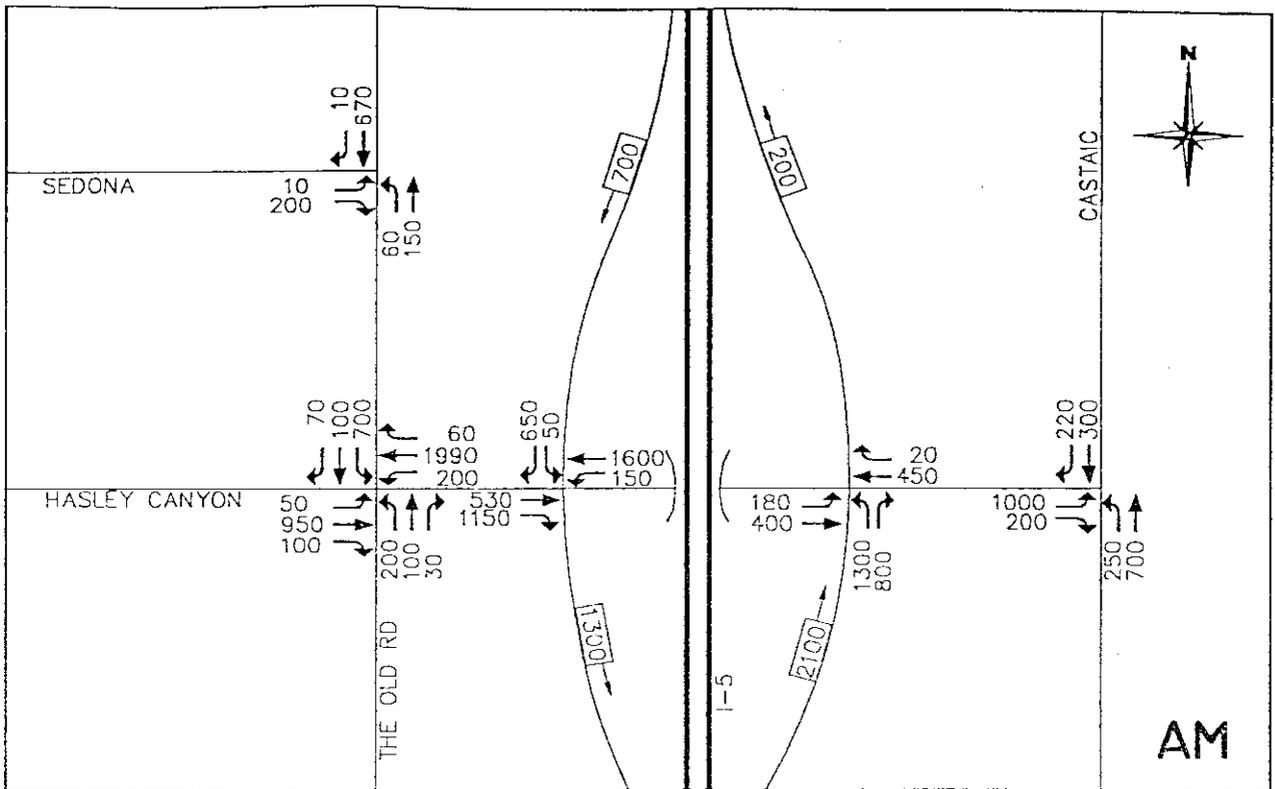


**Figure 2**  
Existing (1997) ADT Volumes (000s)



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**Figure 3**  
Existing (1997) Peak-Hour Volumes



**Figure 4**  
**2020 Peak-Hour Volumes**  
**No-Build Alternative**

Hasley Canyon Road for the 2020 No-Build condition range between 1.09 to 2.14 (Table 1-2). These V/C ratios demonstrate that the existing I-5/Hasley Canyon Road interchange cannot accommodate the forecasted growth in traffic resulting from planned buildout of the Valencia Commerce Center and other area developments.

**TABLE 1-1**  
Levels of Service

LOS	V/C Ratio	Maximum Density (Cars/Mile/Lane)	Description
A	0.00 to 0.60	10	Free-flow operation. The ability to maneuver is almost completely unimpeded.
B	0.61 to 0.70	16	Reasonably free-flow operation. The ability to maneuver is only slightly restricted.
C	0.71 to 0.80	24	Near free-flow operation. The freedom to maneuver is noticeably restricted.
D	0.81 to 0.90	32	Speeds begin to decline. The freedom to maneuver is more noticeably limited.
E	0.91 to 1.00	39.3	Operation is at capacity. There is very limited room to maneuver.
F	Above 1.00	---	Breakdown in vehicular flow.

**TABLE 1-2**  
Intersection Capacity Utilization

Location	Existing Conditions				2020 No-Project Condition			
	A.M. Traffic		P.M. Traffic		A.M. Traffic		P.M. Traffic	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
The Old Road and Hasley Canyon Road	0.48	A	0.43	A	1.25	F	1.09	F
I-5 Southbound Ramps and Hasley Canyon Road	0.55	A	0.47	A	1.92	F	2.14	F
I-5 Northbound Ramps and Hasley Canyon Road	0.37	A	0.52	A	1.31	F	1.54	F
The Old Road and Sedona Way	---	---	---	---	0.67	B	0.55	A

Source: Austin-Foust Associates, Inc., April, 2000.

### 1.2.3 Accident Analysis

The actual accident rates for the most recent 3-year period were compared to the statewide average (expected) accident rates for similar facility types. The most recent available 3-year period extends from April 1, 1997 to March 31, 2000. These rates are taken from the Traffic Accident Surveillance and Analysis Systems (TASAS) data and are summarized in Table 1-3.

As shown in Table 1-3, the current actual injury, fatality and total accident rates for the study segment of I-5 is below the statewide average. Review of the data suggests accidents

that did occur were mostly a result of improper turning movements or speeding. The conditions under which most of the accidents occurred were clear and dry.

TABLE 1-3

Actual and Expected Accident Rates for Selected Locations of I-5 Within the Study Area (per million vehicle kilometers)\*

Route Segment	Actual			Expected		
	Total	Fatalities	Injuries & Fatalities	Total	Fatalities	Injuries & Fatalities
I-5 from 2 km south to 2.8 km north of Hasley Canyon Road Interchange	0.267	0.00	0.068	0.342	0.002	0.112
I-5 Ramps at Hasley Canyon Road:						
NB on-ramp	<u>0.73</u>	0.00	<u>0.73</u>	0.50	0.001	0.20
NB off-ramp	0.12	0.00	0.00	0.93	0.003	0.38
SB on-ramp	0.12	0.00	0.00	0.50	0.001	0.20
SB off-ramp	0.00	0.00	0.00	0.93	0.003	0.38

\* Fatality rates are per 100 million vehicle kilometers. Actual rates exceeding the expected rates are underlined. (Source: TASAS Table "B" Caltrans District 7, October 20, 2000 for I-5 mainline)

The current actual rate of injury, fatality and total accidents on the ramps located at Hasley Canyon Road were below the statewide average, except for the northbound on-ramp which had higher than average rates for combined injury and fatality accidents and for total accidents. These higher rates were a result of one injury accident that occurred near the ramp entry during the day in clear conditions.

Accident data for Hasley Canyon Road and The Old Road within the vicinity of the I-5 interchange were obtained from the Los Angeles County Department of Public Works, Maintenance Management System. The accident data includes the most recent 5-year period extending from January 1, 1995 through December 31, 1999. A summary of the accident data is shown in Table 1-4.

TABLE 1-4

Actual Number of Accidents for Hasley Canyon Road &amp; The Old Road within the Vicinity of I-5 Interchange

Route Segment	Actual Injuries	Actual Fatalities
Hasley Canyon Road from the I-5 Interchange to The Old Road	5 (1)*	0 (0)*
The Old Road from Hasley Canyon Road to Sedona Way	2 (0)*	0 (0)*

Source: Los Angeles County Department of Public Works, Maintenance Management System, March 13, 2000, for the period 1/1/95 to 12/31/99.

\* Rates for the period 1/1/97 to 12/31/99.

There were no fatalities during the last 5 years. There have been seven injury accidents during the last 5 years, with one occurring during the past 3 years.

As the volumes within the roadway network increase over time, there is a statistical probability that the total number of accidents may increase, but the proposed improvements are expected to increase capacity and improve operation, thereby reducing the potential for accidents as compared to the no-build condition.

## **1.3 Project Status**

### **1.3.1 History of the Planning Process**

The I-5/Hasley Canyon Road Interchange Project was initiated with a Project Study Report (PSR). The PSR is a project initiation document, which is required for all major projects prior to inclusion in a state or local programming document such as the State Transportation Improvement Program (STIP). The outcome of the project initiation process is a project scope tied to a preliminary cost estimate and schedule. It allows proceeding to the environmental evaluation and project alternative selection phase.

The PSR was approved by Caltrans on June 21, 1999. A Preliminary Environmental Evaluation Report (PEER) and hazardous waste Initial Site Assessment (ISA) were prepared concurrently with the PSR in order to identify the environmental issues and anticipated environmental impacts of the proposed project. The PEER was completed in May 1999. An Environmental Significance Checklist was prepared as part of the PEER and is included in this Initial Study/Environmental Assessment (IS/EA) in Section 4.

### **1.3.2 Other Relevant Documents**

There are several planned and ongoing projects within the vicinity of the proposed project. These projects, described in Section 2.3, have separate environmental documents that evaluate environmental impacts affecting the same general area as this proposed project. These studies were reviewed, and relevant information has been incorporated into this document. All relevant documents have been listed in the reference list in Section 8.

## **1.4 Required Coordination and Applicable Regulatory Requirements**

California Department of Transportation (Caltrans) is the state Lead Agency for this IS/EA under California Environmental Quality Act (CEQA); Federal Highway Administration (FHWA) is the federal Lead Agency under National Environmental Policy Act (NEPA). In addition to direction provided by Caltrans and FHWA, ongoing project coordination has been provided through a Project Development Team (PDT). The PDT is composed of technical staff from Caltrans, FHWA, Los Angeles County, the Valencia Company, the City of Santa Clarita, and the CH2M HILL consultant team. The PDT continues to meet monthly throughout the course of the study to review progress, to exchange technical information, and to respond to new issues affecting the project.

Consultation and coordination with a variety of other agencies have also been required. Among these are:

- U.S. Environmental Protection Agency
- California Regional Water Quality Control Board
- State Historic Preservation Officer
- Native American Heritage Coordinator
- U.S. Fish and Wildlife Service
- California Department of Fish and Game
- Southern California Association of Governments
- South Coast Air Quality Management District
- County of Los Angeles Planning Department
- City of Santa Clarita Planning Department

Construction of the proposed project may require state or federal permits, reviews, or approvals in addition to those required by local jurisdictions. These additional requirements fall mainly under the following statutes:

- Federal Endangered Species Act
- California Endangered Species Act
- Native Plant Protection Act

# Section 2

## Description of Proposed Project

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### 2.1 Project Description

The proposed project is located in Los Angeles County (County), northwest of the City of Santa Clarita (City). The project is between kiloposts (KP) R89.6 and R91.3 (postmile [PM] R55.7 to R56.8) on I-5 (refer to Figure 1).

As a result of planned commercial/industrial developments and transportation improvement projects, the existing I-5/Hasley Canyon Road intersection is expected to experience significant increases in traffic. The Valencia Company is a subsidiary of the Newhall Land and Farming Company, which is one of the major land owners and developers within the project area. The Valencia Company, along with the County and Caltrans recognize the need to provide for the future development and projected increases in traffic, to accommodate increased inter-regional growth and traffic, to improve circulation in the area, and to enhance safety at this intersection. To accomplish these objectives, the Valencia Company; in cooperation with FHWA, Caltrans, the City, and the County; is proposing that the existing I-5/Hasley Canyon Road interchange be reconfigured by replacing the Hasley Canyon Road overcrossing and modifying the existing ramps. The proposed improvements would increase capacity, improve operations, improve local access and circulation, incorporate planned infrastructure improvements, enhance safety, and accommodate planned growth within the study area. Without these improvements, severe congestion (as shown in Table 1-2) will occur due to the expected increase in the average daily and peak-hour traffic volumes on I-5 and at the I-5/Hasley Canyon Road interchange.

Five alternatives were studied in the PSR (CH2M HILL, June 1999), including the No-Build Alternative and four other alternatives involving construction. Two of the "build alternatives" were eliminated during the PSR phase. Since then, a third build alternative has been eliminated and replaced by a new alternative. The rationale for elimination of these three alternatives is discussed in Section 2.4.3.

Preliminary estimates of total project costs for the build alternatives, including capital and support costs, range from \$20.85 million to \$21.60 million. The project is expected to be funded with federally funded programs administered through the Los Angeles County Metropolitan transportation Authority (LACMTA). The County sponsored an application for the 1999 LACMTA "Call for Projects," and was awarded \$6.322 million under the Regional Surface Transportation Project (RSTP) Modal Category. Additional funds for the project will come from the County Bridge and Major Thoroughfare District (B&T) funds. As a large developer in the area, Valencia Company fees will provide the bulk of the funds to the B&T.

## 2.2 Relationship to State, Regional, and Local Transportation Planning

The Transportation Concept Report (TCR) for widening I-5 was approved on November 23, 1998. The 2020 TCR calls for four mixed-flow lanes and one truck lane in each direction. The LOS for the concept facility (year 2020) is indicated as “F” in the TCR. The Ultimate Concept for I-5 calls for five mixed-flow lanes and one truck lane in each direction.

The proposed project is listed in the Regional Transportation Improvement Program (RTIP) for 2000/01 – 2005/06 as approved on October 6, 2000. As such, the project is consistent with the 1998 Regional Transportation Plan (RTP) prepared by the Southern California Association of Governments (SCAG).

## 2.3 Other Local Projects and Proposals

During the next 20 years, the area around the I-5/Hasley Canyon Road interchange is projected to experience a buildout of major commercial and industrial developments, which will result in significant increases in regional and inter-regional traffic on these routes. Increases in local traffic are also projected for the area due to ongoing construction and planned development within the greater Santa Clarita Valley. Additionally, several transportation improvement projects within Santa Clarita Valley will change traffic patterns, contributing more traffic to the I-5/Hasley Canyon Road interchange. These commercial/industrial developments and local transportation improvement projects are discussed below.

### 2.3.1 Future Development

The Valencia Company is developing 702 acres north of the SR-126/Commerce Center Drive intersection as a major industrial, office, and supporting commercial-use center named Valencia Commerce Center. Approximately 40 percent (280 acres) of the area is being preserved as open space and hillside management area. Despite this preservation of open space, the Valencia Commerce Center is forecasted to grow from the existing 200,000 square meters to approximately 1.2 million square meters by the year 2020, resulting in a large employment area north of SR-126 at Commerce Center Drive. The buildout of the Valencia Commerce Center will add approximately 110,000 vehicle trips per day (Austin-Foust, 1999) and will include construction of “A” Street that will intersect with Commerce Center Drive south of the Castaic Creek Bridge. A majority of Valencia Commerce Center drivers will use SR-126, with a high proportion of those trips accessing the Valencia Commerce Center through the I-5/Hasley Canyon Road intersection.

### 2.3.2 Access to Valencia Commerce Center

As part of the development plans for the Valencia Commerce Center, the Valencia Company plans to improve access to the Center. The area currently has access from I-5 at Hasley Canyon Road, located north of SR-126. Planned access improvements, already under construction and partially completed, will result in an extension of Commerce Center Drive

southward from its previous terminus near Franklin Avenue, across a new bridge over Castaic Creek, to SR-126. The existing SR-126/Commerce Center Drive intersection will become a grade-separated freeway interchange with on- and off-ramps.

### **2.3.3 Improvements for I-5/SR-126 Interchange**

The existing I-5/ SR-126 interchange, located northwest of the City of Santa Clarita in Los Angeles County, will be reconstructed and reconfigured to provide missing directional movements, improve traffic operations on the interchange, increase capacity, improve local access and circulation in the region and in the local area, enhance the safety of the interchange, and accommodate planned growth. The project is scheduled to begin construction in mid-2001 and would affect traffic operations in the region as well as those at the I-5/Hasley Canyon Road intersection during construction.

### **2.3.4 Newhall Ranch Road Construction**

Newhall Ranch Road will be constructed from east of the northbound I-5 off-ramp as an ultimate six- to eight-lane (three to four lanes in each direction) city arterial, connecting to McBean Parkway. This connection to I-5/SR-126 will provide access via SR-126 to the Newhall Ranch development, a master-planned community to be located west of I-5, consisting of over 20,000 residential units and over 464,000 square meters designated for commercial and industrial use.

### **2.3.5 Improvements Planned for Magic Mountain Parkway**

The Valencia Company; in cooperation with the City of Santa Clarita, the County of Los Angeles, and Caltrans; is developing improvement alternatives for the I-5/Magic Mountain Parkway interchange and for Magic Mountain Parkway from I-5 to McBean Parkway. The project would modify the I-5/Magic Mountain Parkway interchange, reconstruct the Santa Clara River Bridge, realign The Old Road, and realign and widen Magic Mountain Parkway from six to eight lanes.

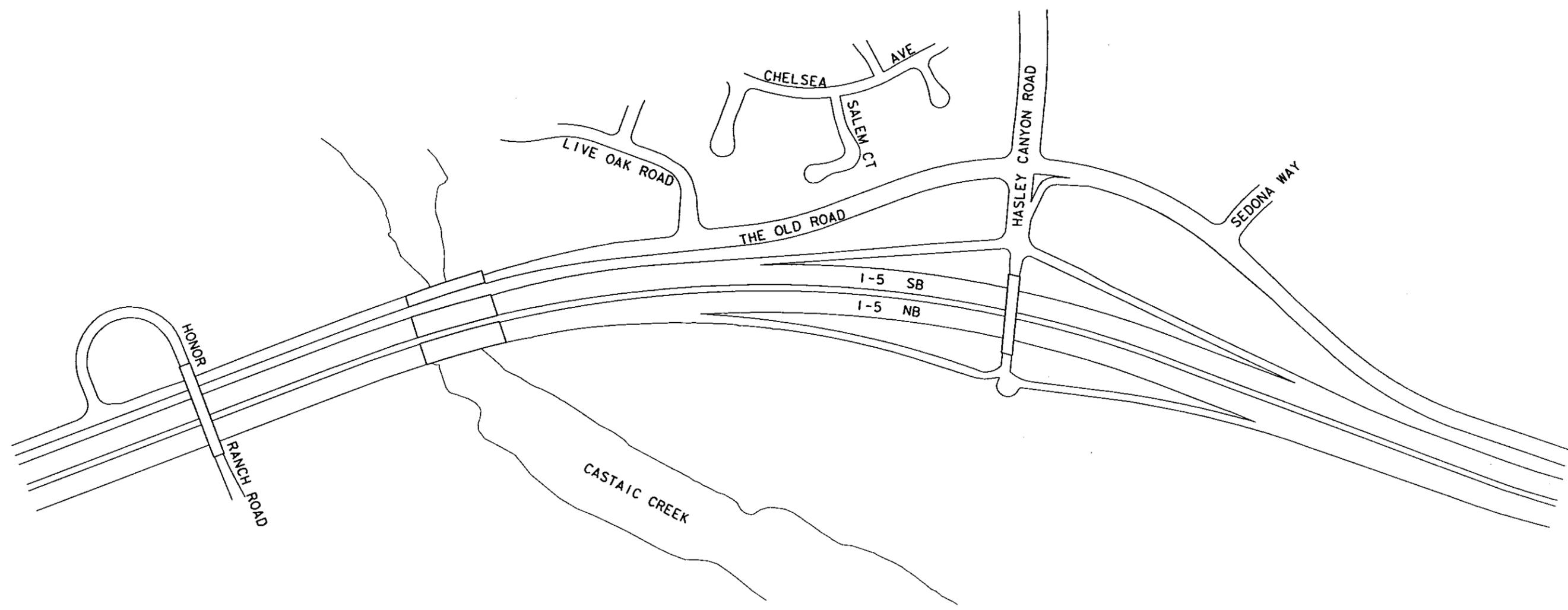
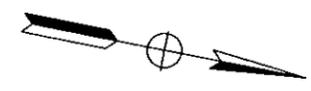
### **2.3.6 Feasibility Study**

The Valencia Company is preparing a feasibility study to relocate the I-5/Rye Canyon Road hook ramps approximately 137 meters to the north of their existing location (1.6 kilometers south of the I-5/SR-126 interchange). This improvement will include the installation of a traffic signal and will widen ramp and intersection approaches, which will alleviate existing traffic congestion and will accommodate traffic diverted during the construction of the I-5/SR-126 and I-5/Magic Mountain Parkway interchange improvements.

## **2.4 Alternatives**

### **2.4.1 No-Build Alternative**

The No-Build Alternative (Figure 5) proposes no improvement to the existing interchange, which is a diamond-type interchange with The Old Road, located to the west of the I-5/Hasley Canyon Road interchange. The space between The Old Road and the I-5/Hasley Canyon Road interchange does not meet the minimum spacing standard of Caltrans. The



**NO-BUILD ALTERNATIVE**  
NO SCALE

**FIGURE 5**

portion of I-5 located within the project limits consists of four mixed-flow lanes in each direction. There is no construction cost associated with this alternative.

The ICU and LOS analysis, discussed in Section 1.2.2, revealed that the existing interchange would not accommodate forecasted traffic volumes. Furthermore, as buildout occurs, congestion and delay will increase, resulting in additional fuel consumption and vehicle emissions. In addition to not accommodating future traffic volumes, the existing nonstandard features of the I-5/Hasley Canyon Road interchange will not be improved.

The intersection operational analysis revealed that the existing diamond configuration will not accommodate the forecasted four-fold increase in traffic using the Hasley Canyon Road interchange to access I-5. The ramp intersections and the intersection at Hasley Canyon Road and The Old Road will operate at LOS F during both A.M. and P.M. peak hours, with V/C ratios ranging from 1.09 to 2.14. As buildout of the surrounding areas occurs, traffic volumes will increase, and congestion and delay at these intersections will increase to the point where the intersection approach queues may extend through adjacent intersections creating gridlock. Another operational concern is, as delays at ramp intersections increase, the queues on the off-ramps could back up onto the I-5 mainline, creating considerable safety and operational problems. The 2020 A.M.-peak-hour northbound-exiting volume (2,100 vehicles) and the P.M.-peak-hour southbound-entering volume (2,100 vehicles) will exceed the capacity of a single-lane ramp diverge and merge. These heavy entering and exiting volumes will reduce mainline operating speeds, create congestion, and potentially increase the number of accidents.

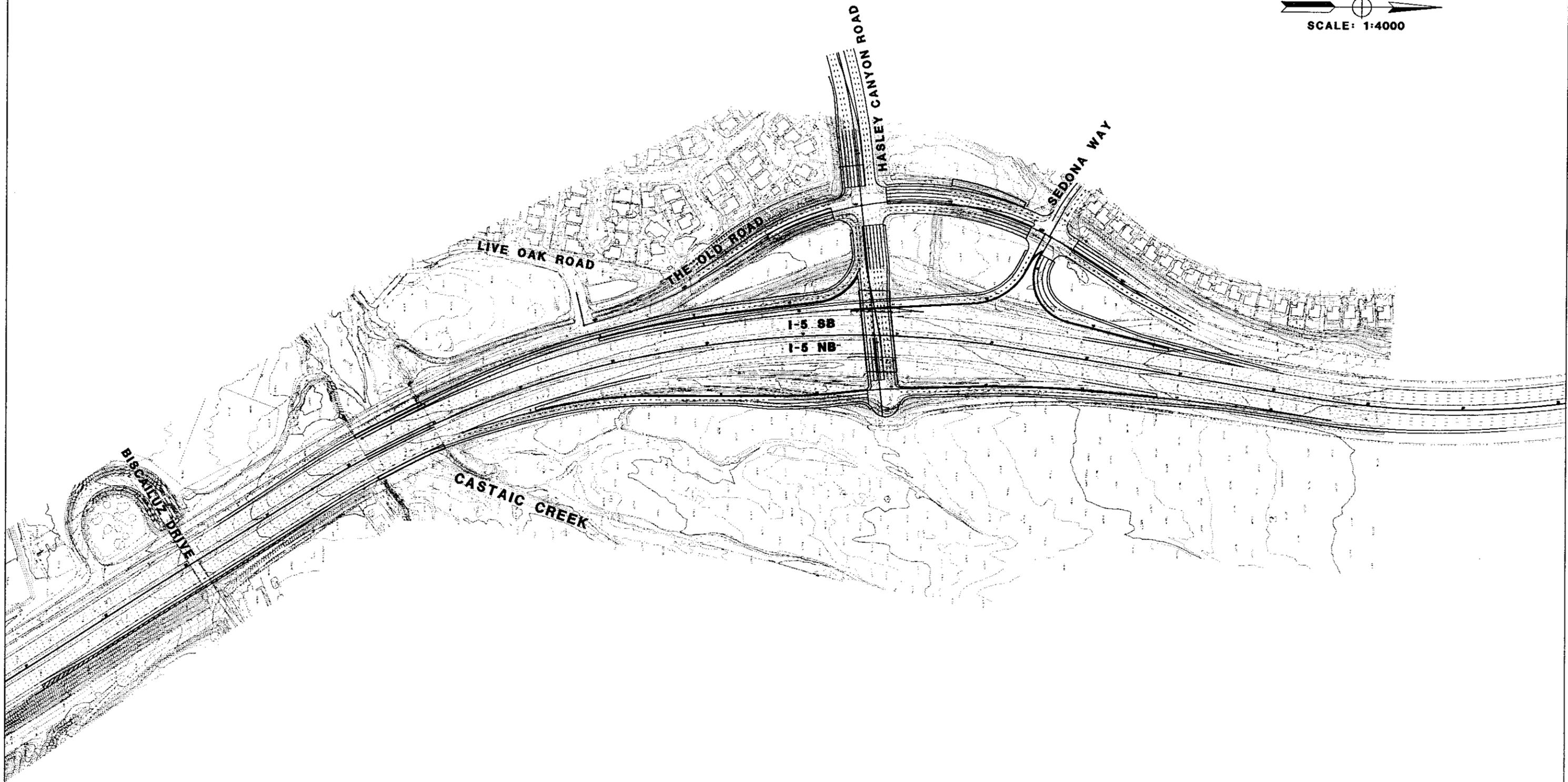
To summarize, the No-Build Alternative would not meet the project purpose and need, as discussed in Sections 1.1 and 1.2, for the following reasons:

- The No-Build Alternative would not accommodate local circulation and access needs.
- It would not be consistent with local and regional planning.
- It would not accommodate forecasted traffic volumes, which would result in increased traffic congestion and delay as buildout occurs in the area and related increased fuel consumption and vehicle emissions.

#### **2.4.2 Alternative 4—Hook Ramp Interchange**

Alternative 4 proposes the construction of southbound hook on- and off-ramps that intersect The Old Road opposite Sedona Way, creating a four-way signalized intersection (Figure 6). Sedona Way provides access to a 280 unit single-family residential development, and intersects The Old Road approximately 200 meters north of Hasley Canyon Road.

To accommodate exiting vehicles during the A.M. peak-hour traffic in 2020 (700 vehicles anticipated), the single-lane southbound hook off-ramp would be widened to three lanes. This would provide a left-turn lane, a left-turn-and-through lane, and a right-turn lane at the intersection of the off-ramp with The Old Road and Sedona Way. Two southbound left-turn lanes would be provided to facilitate A.M. peak-hour traffic accessing the southbound hook on-ramp from The Old Road at Sedona Way (400 vehicles anticipated). The southbound hook on-ramp would narrow from two lanes to one lane before merging with the southbound I-5 mainline. Between Sedona Way and Hasley Canyon Road, The Old



Road would be widened to eight lanes, providing three through lanes in each direction. The third northbound lane would terminate as an exclusive right-turn lane, providing access to the southbound hook on-ramp. The third southbound lane would terminate as an exclusive right-turn lane to westbound Hasley Canyon Road.

To accommodate the heavy southbound right-turn volume (650 vehicles in the A.M. peak hour and 280 vehicles in the P.M. peak hour) at the intersection of Hasley Canyon Road and The Old Road, an exclusive right-turn and an optional through- and right-turn lane would be provided. Eastbound and westbound Hasley Canyon Road would be widened to provide three through lanes, double left-turn lanes, and an exclusive right lane.

The forecasted eastbound and westbound peak-hour approach volumes are projected to vary between 2,350 vehicles in the P.M. average peak hour and 1,750 vehicles in the A.M. peak hour, respectively. South of Hasley Canyon Road, The Old Road would be widened to provide two through lanes in each direction and two northbound left-turn lanes. The two left-turn lanes provided in both the northbound and southbound direction on The Old Road would be necessary due to the shorter storage space available.

To accommodate the forecasted vehicle P.M. average peak-hour volumes accessing southbound I-5, the three eastbound through lanes would split with two lanes accessing the southbound diagonal on-ramp and two lanes continuing eastward to access the northbound on-ramp. The two-lane southbound diagonal on-ramp would narrow to one lane. A taper would be provided after the gore area to provide a parallel lane to help with weaving problems. The taper would end prior to the Biscailuz Drive Overcrossing.

Northbound I-5 would be widened to provide an auxiliary lane for the two-lane off-ramp to Hasley Canyon Road to accommodate the A.M. peak-hour-exiting traffic (2,100 vehicles anticipated), which exceeds the capacity of a single-lane off-ramp. The northbound off-ramp would widen to three lanes. At the Hasley Canyon Road/northbound ramp intersection, the westbound approach would be widened to provide two through lanes and an optional through-and-right-turn lane. In the eastbound direction, two through lanes and dual left-turn lanes would be provided. The northbound on-ramp would narrow to one lane before merging with the northbound mainline.

This alternative is designed for three signalized intersections. The Hasley Canyon Road/The Old Road intersection is currently signalized; however, with the widening of the intersection, the signals would need to be relocated. New signals would be needed at The Old Road/Sedona Way intersection and at the Hasley Canyon Road/northbound ramps intersection. These intersections would be spaced in accordance with current design standards for intersection spacing. There are currently 194 meters of spacing along the two intersections on Hasley Canyon Road and 206 meters of spacing between the two intersections on The Old Road.

The existing two-lane I-5/Hasley Canyon Road overcrossing would be replaced to provide for seven lanes—four westbound lanes and three eastbound lanes. The I-5 bridges over Castaic Creek would need to be widened to accommodate the addition of auxiliary lanes. The estimated cost of this alternative is \$21.6 million.

Alternative 4 would address the purpose and need of the project in the following areas:

- It would be consistent with local and regional planning by accommodating local circulation and access needs.
- It would alleviate congestion and address capacity deficiencies.
- It would accommodate the area buildout and the resultant increases in traffic volumes forecasted for 2020.

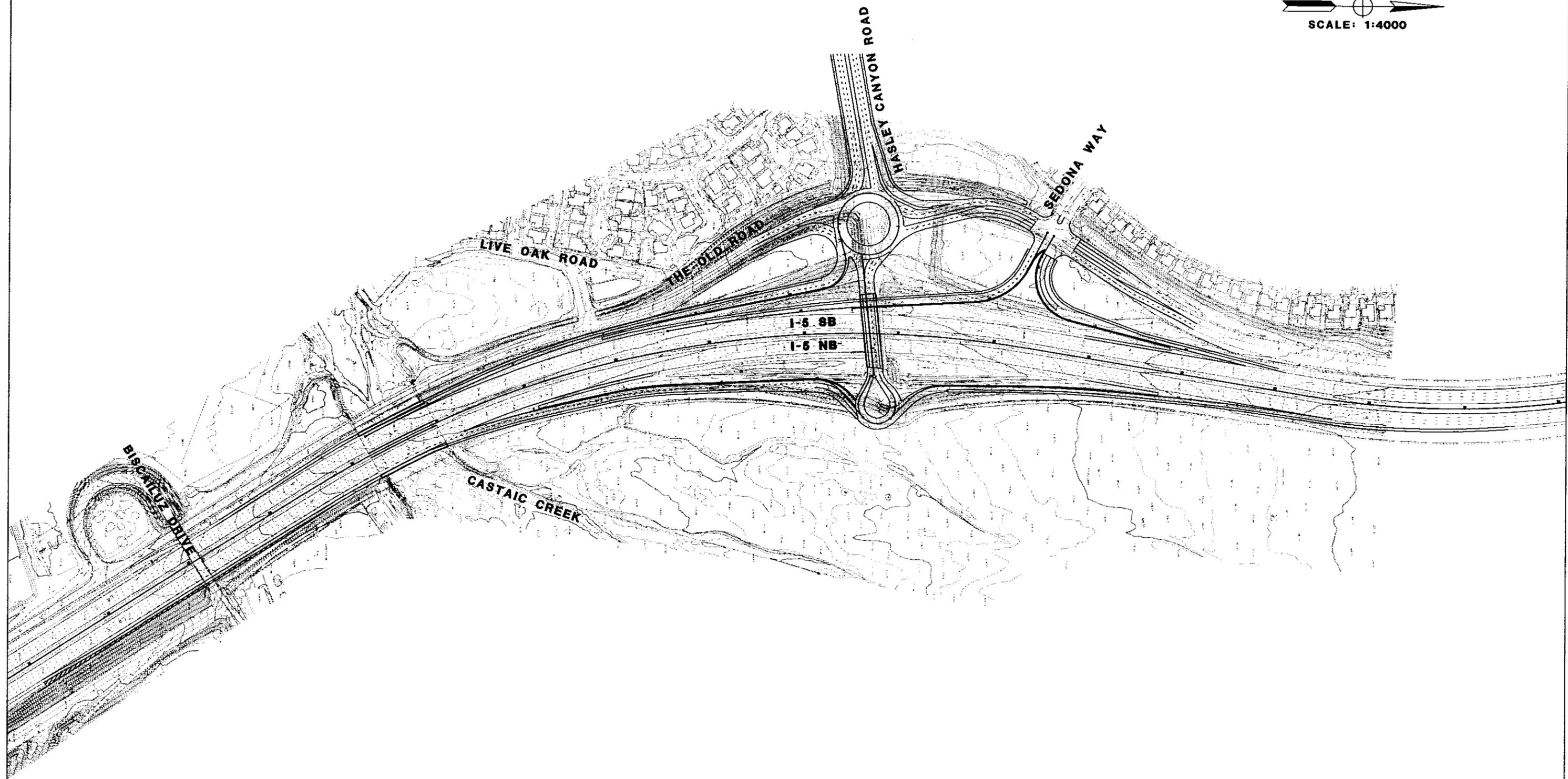
### 2.4.3 Alternative 5—Hybrid Alternative

Alternative 5 is referred to as the “Hybrid Alternative” (Figure 7) because it is a combination of the Hook Ramp Interchange (Alternative 4) and a Roundabout Interchange design (Alternative 1) that was previously analyzed in the PSR. The southbound I-5 hook ramps to The Old Road and the new signalization of the four-way intersection at The Old Road, Sedona Way, and the southbound I-5 hook ramps are the same as previously described for Alternative 4. The major difference with this alternative is that the existing interchange would be converted to a modern roundabout interchange, referred to as the west roundabout. A second roundabout, referred to as the east roundabout, would be located at the northbound on- and off-ramps. The west roundabout would provide free-flow traffic circulation for The Old Road, Hasley Canyon Road, and a second southbound on-ramp. The east roundabout would provide traffic circulation for the northbound ramps and Hasley Canyon Road. The proposed roundabouts would not require any type of signalization due to the free-flow design of the roundabout.

The west roundabout would provide three lanes to traffic entering from both north- and southbound direction of The Old Road to accommodate southbound A.M. average peak-hour volume of 350 vehicles and the northbound P.M. average peak-hour volume of 640 vehicles. In addition, one bypass lane from southbound The Old Road to westbound Hasley Canyon Road would be provided for the forecasted A.M. and P.M. average peak-hour volumes of 650 and 280 vehicles, respectively. Three lanes of traffic would also be provided to traffic entering from both eastbound and westbound Hasley Canyon Road. This design would accommodate the heavy eastbound P.M. average peak-hour volume of 2,350 vehicles and westbound P.M. average peak-hour volume of 1,700 vehicles entering the roundabout. Two lanes would be provided to accommodate the P.M. peak-hour volume of 1,300 vehicles exiting the roundabout to the southbound I-5 on-ramp.

The east roundabout would provide one entry lane for eastbound traffic on Hasley Canyon Road. Two lanes exiting the roundabout to westbound Hasley Canyon Road would be provided to accommodate the forecasted A.M. and P.M. average peak-hour volumes of 1,650 and 1,700 vehicles, respectively. The northbound exit ramp would enter the roundabout with three lanes to accommodate the heavy A.M. and P.M. average peak-hour volumes of 1,900 and 1,300 vehicles, respectively. The northbound on-ramp would exit the roundabout with one lane.

The two-lane existing I-5/Hasley Canyon Road overcrossing would be replaced and shifted to the south of the existing structure to provide for two westbound lanes and one eastbound lane. The I-5 bridge over Castaic Creek would need to be widened due to the addition of



auxiliary lanes for the northbound I-5 off-ramp and southbound I-5 on-ramp. The estimated cost of this alternative is \$20.85 million.

Alternative 5 would also address the purpose and need of the project in the following areas:

- It would be consistent with local and regional planning by accommodating local circulation and access needs.
- It would alleviate congestion and capacity deficiencies.
- It would accommodate the forecasted area buildout and the resultant increases in traffic volumes.

## 2.4.4 Alternatives Evaluated but Eliminated

Six alternatives for the I-5/Hasley Canyon Road interchange project have been considered, including the No-Build Alternative and five build alternatives. The three eliminated build alternatives are discussed below.

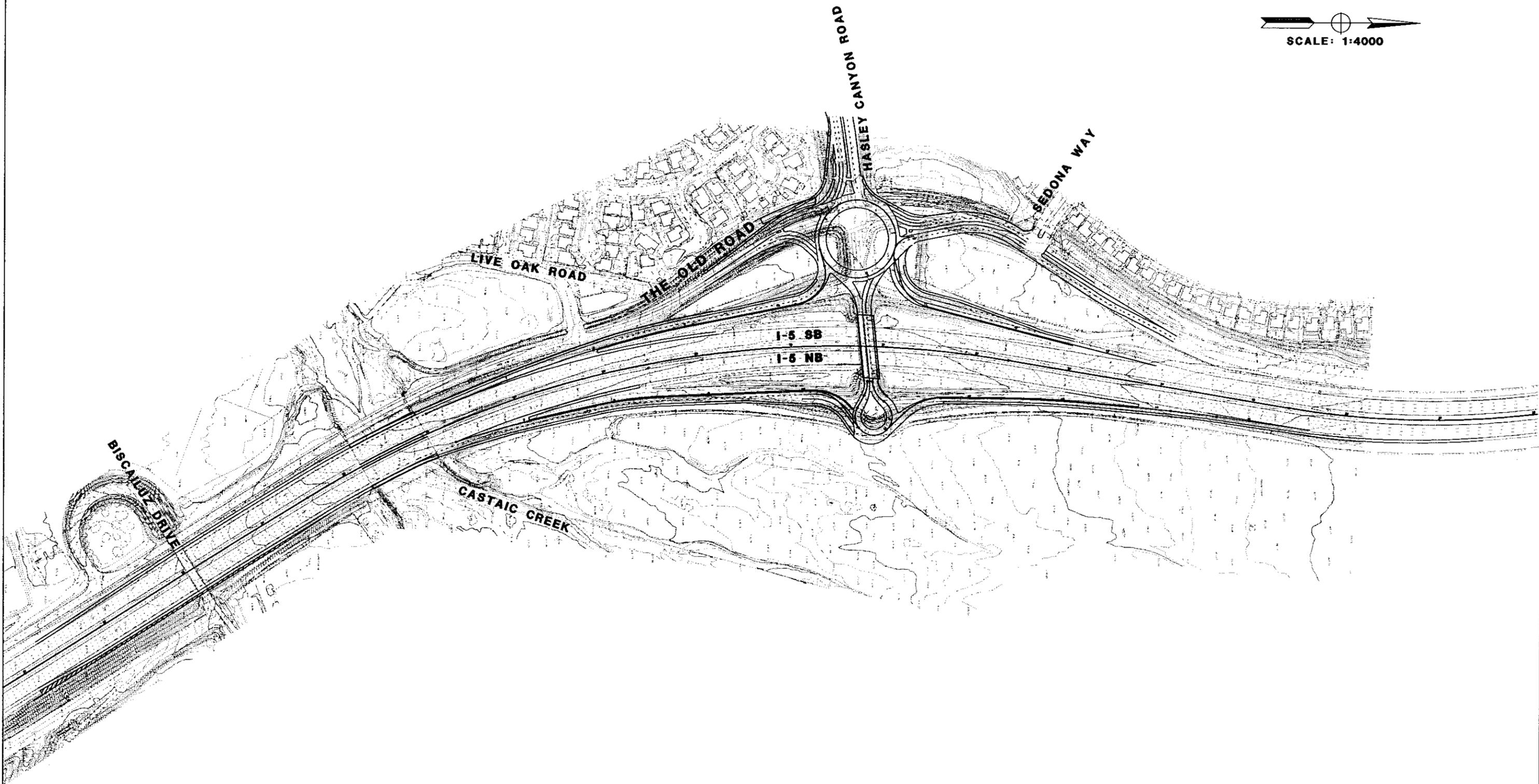
### 2.4.4.1 Alternative 1—Roundabout Interchange

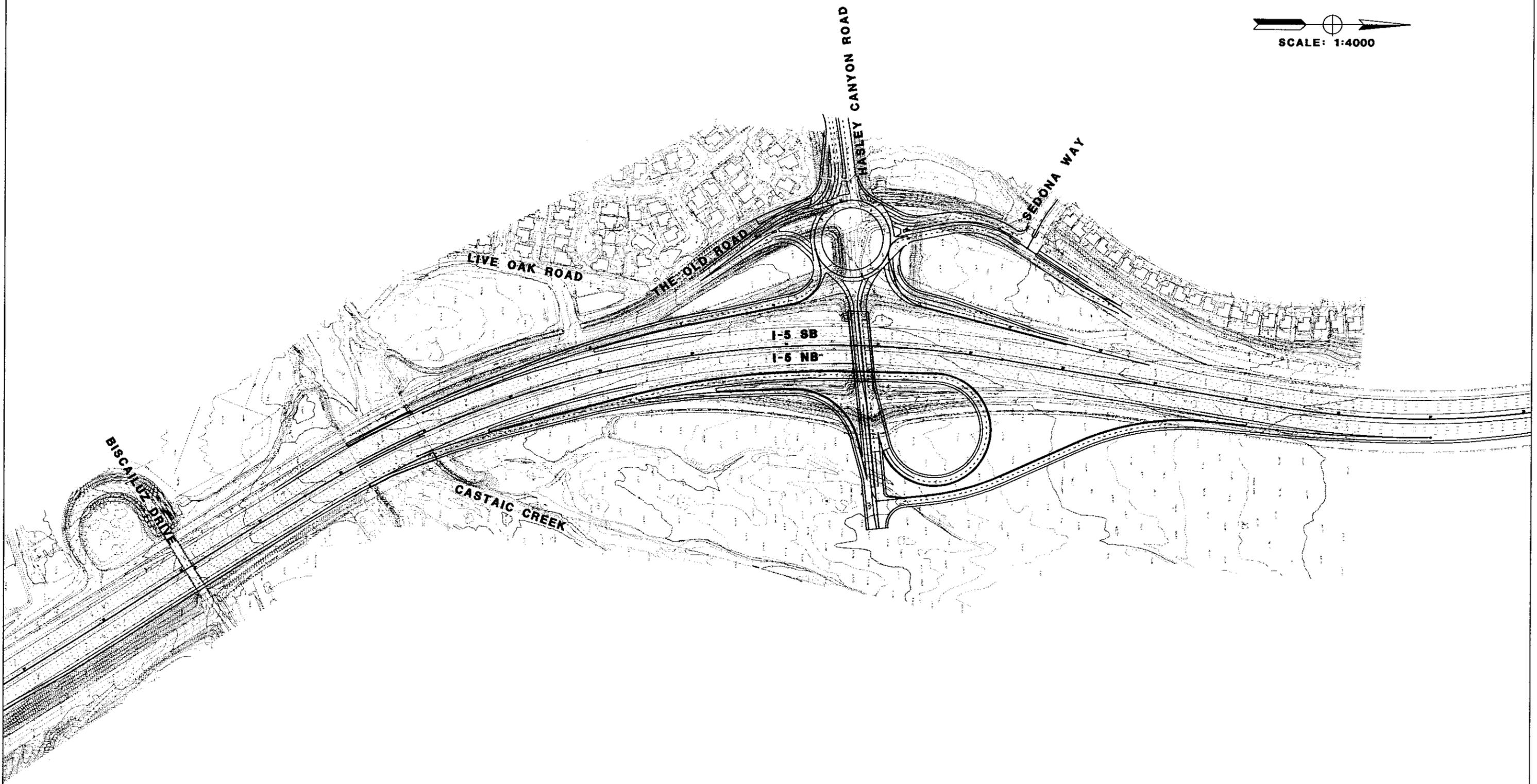
This alternative (Figure 8) proposes a modern roundabout interchange at the I-5 southbound and northbound ramps to provide adequate intersection capacity for projected (2020) traffic volumes. The west roundabout would provide traffic circulation for the southbound on- and off-ramps, The Old Road, and Hasley Canyon Road. The east roundabout would provide traffic circulation for the northbound ramps and Hasley Canyon Road. Entries to the roundabouts would be flared to add lanes at the yield lines to accommodate the peak-hour traffic. This alternative is the basis for the Hybrid Alternative. The main difference between the two alternatives is that the southbound ramps directly exit or enter from the west roundabout for Alternative 1. Alternative 1 was rejected because of operational concerns at the single southbound on-ramp due to a high volume of vehicles. Other factors contributing to elimination of this alternative include concerns that traffic would back up into the roundabout and the need for an auxiliary lane along southbound I-5 that would require the replacement of the Biscailuz Drive Overcrossing.

### 2.4.4.2 Alternative 2—Roundabout Interchange at Southbound Ramps and Partial-Cloverleaf (Parclo) Concept at Northbound Ramps

This alternative (Figure 9) proposes a modern roundabout at Hasley Canyon Road to provide traffic circulation to the I-5 southbound ramps and The Old Road, and a parclo concept at the I-5 northbound ramps. This alternative was rejected for the following reasons:

- Increased encroachment into Castaic Creek, which is an environmentally sensitive area.
- Excessive right-of-way requirements along the east side of the freeway. These properties are zoned as commercial and have a high cost value.
- High costs associated with this alternative due to replacement of the Hasley Canyon Road overcrossing, additional right of way, and additional roadway due to the parclo ramp.



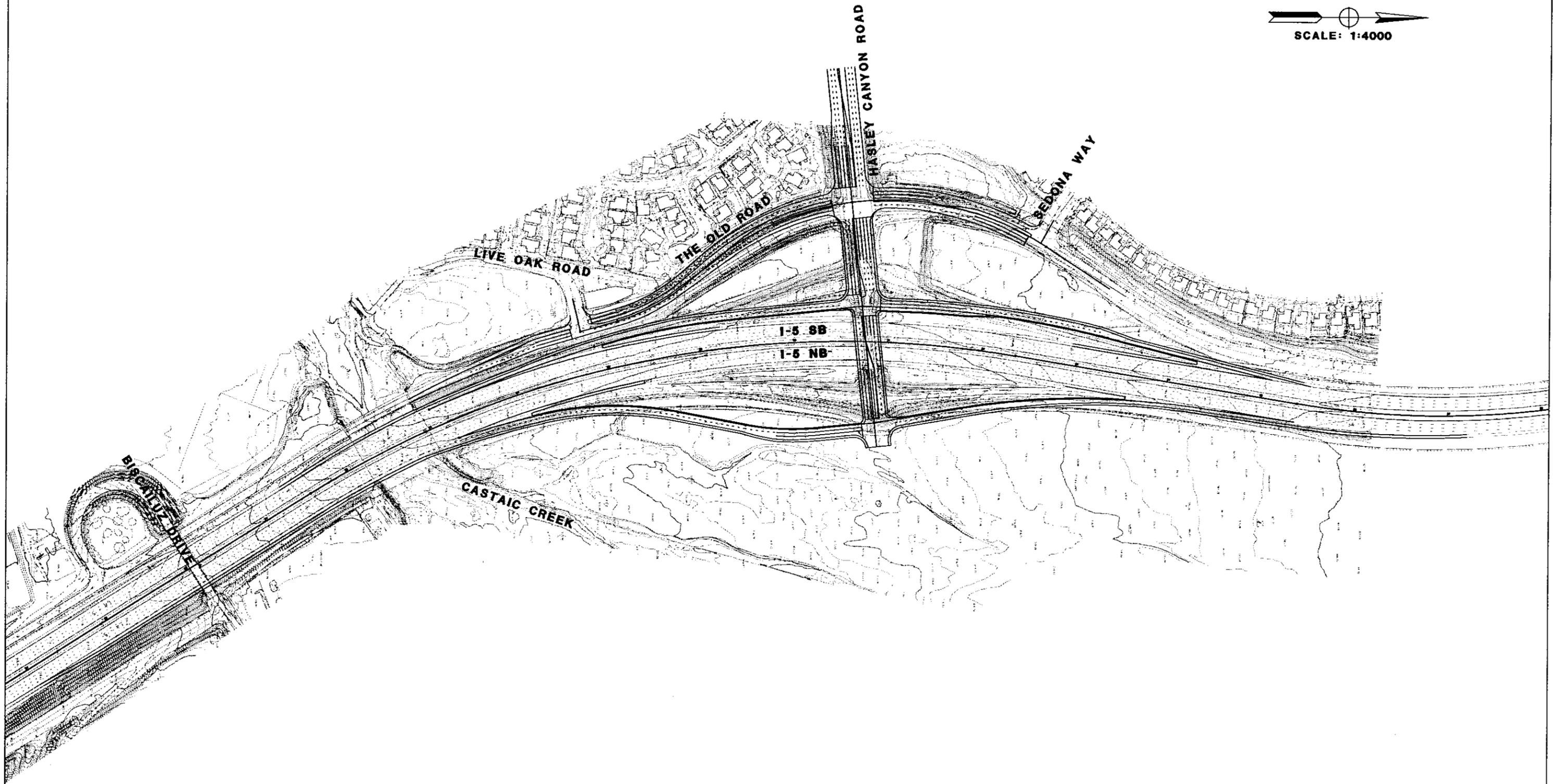


ROUNDAABOUT WITH PARCLO CONCEPT ALTERNATIVE  
I-5/HASLEY CANYON ROAD

#### 2.4.4.3 Alternative 3—Compact Diamond Interchange

This alternative modifies the existing diamond interchange to accommodate the future traffic volumes and improve the nonstandard features (Figure 10). The Old Road and southbound ramps would be realigned to the west and east, respectively, to increase the distance between these intersections with Hasley Canyon Road. Retaining walls would be constructed along the west side of The Old Road and along the east side of the southbound ramps to accommodate this realignment.

An evaluation of the traffic operations for this alternative determined that the distance between The Old Road intersection and the southbound ramp intersection would be insufficient for adequate traffic operations (Austin-Foust, 1998). Similarly, storage for the eastbound left-turning vehicles to the northbound on-ramp is inadequate. Because of the lack of storage, there would be the potential for blockage from one intersection to the other, resulting in disruption to the southbound off-ramp intersection. Since westbound vehicles stored on the bridge could be affected by this breakdown in traffic flow, the northbound off-ramp intersection would also be affected. It was concluded that this design would have traffic operation problems that could severely limit its ability to function at the theoretical capacity of the intersections. As a result, it could potentially cause traffic to back up onto the freeway mainline.



# Section 3

## Affected Environment

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### 3.1 Topography and Geology

The I-5/Hasley Canyon Road interchange is located in northern Los Angeles County, California. The area is generally defined by significant mountain ridges of the San Gabriel, Santa Susana, and Piru Mountains, and by the Angeles National Forest in addition to several canyons, valleys, and the Castaic Creek bed. Castaic Creek originates approximately 25 kilometers (16 miles) north of the project site in the Angeles National Forest. The Santa Clara River originates approximately 52 kilometers (32 miles) southeast of the project site in the San Gabriel Mountains. These two drainage courses merge approximately 4.7 kilometers (2.9 miles) south-southwest of the I-5/Hasley Canyon Road interchange.

The climate of the area can be classified as "valley marginal." The average annual precipitation varies between 0.25 meters (9.84 inches) and 1.01 meters (39.76 inches) per year (City of Santa Clarita, 1997). Winter storms from the northwest account for 90 percent of the rainfall in the area, with summer thunderstorms from tropical depressions accounting for the rest.

The project area is underlain by sedimentary bedrock of the Saugus Formation. Overlying the bedrock are terrace deposits, alluvium, slopewash, and artificial fills. The Holser and San Gabriel Faults are the faults closest to the I-5/Hasley Canyon Road interchange.

### 3.2 Land Use and Planning

The proposed project is located in a fast-growing area within unincorporated Los Angeles County, northwest of the City of Santa Clarita, in the northwest portion of the Santa Clarita Valley. To the southeast of the I-5/Hasley Canyon Road interchange is the community of Valencia, within the City of Santa Clarita. Valencia is a master-planned community that is being developed on property owned by the Newhall Land and Farming Company. The master plan was designed in the early 1960s to create a unified urban environment.

#### 3.2.1 Existing Land Uses

In general, current land use patterns west of I-5 reflect a mixture of open space, urban, and rural. The immediate project area has residential developments, commercial and industrial properties, agriculture uses, and vacant land consisting of either undeveloped commercial/industrial areas, hills, or floodplains.

The surrounding urbanized development supports a variety of commercial and industrial businesses within the Valencia Commerce Center, located north of the SR-126/Commerce Center Drive intersection. The Valencia Commerce Center is an ongoing, major expansion of the Valencia Industrial Center on approximately 581 hectares (1,436 acres). It includes

284 hectares (702 acres) of industrial park, with approximately 102 hectares (252 acres) of industrial space, 12 hectares (30 acres) of general commercial area, and 37 hectares (91 acres) of office park. The area also has plans for a 4.5-hectare (11-acre) recreational area with jogging trails and an equestrian trail.

### 3.2.2 Proposed Developments

The Valencia Commerce Center is currently developing planned expansions southwest of the project area, as discussed in Section 2.3. The City of Santa Clarita is also developing plans for the North Valencia Annexation project. This project would involve the annexation of 347 hectares (858 acres) of land into the City of Santa Clarita and approval for a mixed residential, commercial, office, industrial, conservation, and recreation development project.

### 3.2.3 Local and Regional Land Use Plans

The proposed project is located within the jurisdiction of Los Angeles County. As such, the proposed project is subject to the General Plan policies and Zoning Ordinances of Los Angeles County. Policies of the General Plan are presented in the Santa Clarita Valley Area Plan, developed in 1984 and amended in 1990.

The Santa Clarita Valley Area Plan is a portion of the Los Angeles County General Plan that provides a framework to guide decisionmakers in developing policies for the unincorporated areas of the Santa Clarita Valley. The following policies from the Santa Clarita Valley Area Plan are relevant to the proposed project:

#### **Land Use Element**

Policy 9.4—Encourage the development of a public transportation system to meet resident requirements for access to public and private services, employment, and activity centers consistent with demand.

#### **Economic Development Element**

Policy 1.3—Support infrastructure improvements in appropriate locations that contribute to development or expansion of employment-producing uses.

#### **Circulation Element**

Policy 2.1—Encourage the State of California to improve the capacity of the Golden State and Antelope Valley Freeways as traffic volumes dictate. Route 126 from the Antelope Valley Freeway to the Ventura County boundary is also recommended for construction as an expressway.

Policy 2.3—Encourage the State of California to expand the access to the freeway system as needed to serve the area and to maximize freeway capacity.

The City of Santa Clarita has its own General Plan (1991), which provides guidance for the development of the City. The following policy from the City of Santa Clarita General Plan is also relevant to the proposed project:

#### **Land Use Element**

Policy 7.1—Ensure demand for public facilities and services does not exceed the ability to provide and maintain such facilities and services; necessary

facility improvements should precede or be coordinated with future development.

### **3.3 Farmland**

Uncultivated land that contains soils suitable for farming is located within the proposed project area, between The Old Road and I-5. These areas are shown in Figures 11 and 12.

## **3.4 Social and Economic Conditions**

### **3.4.1 Population**

Both Los Angeles County and the City of Santa Clarita have experienced rapid population growth over the past several decades, facilitated by construction of a major freeway network and the gradual migration of large-scale employers into northern Los Angeles County. Since incorporation, the City of Santa Clarita has continued to grow at a relatively rapid rate. The city is currently home to about 131,000 residents and is expected to grow to over 188,000 by 2020, representing a 1.6 percent average annual growth rate.

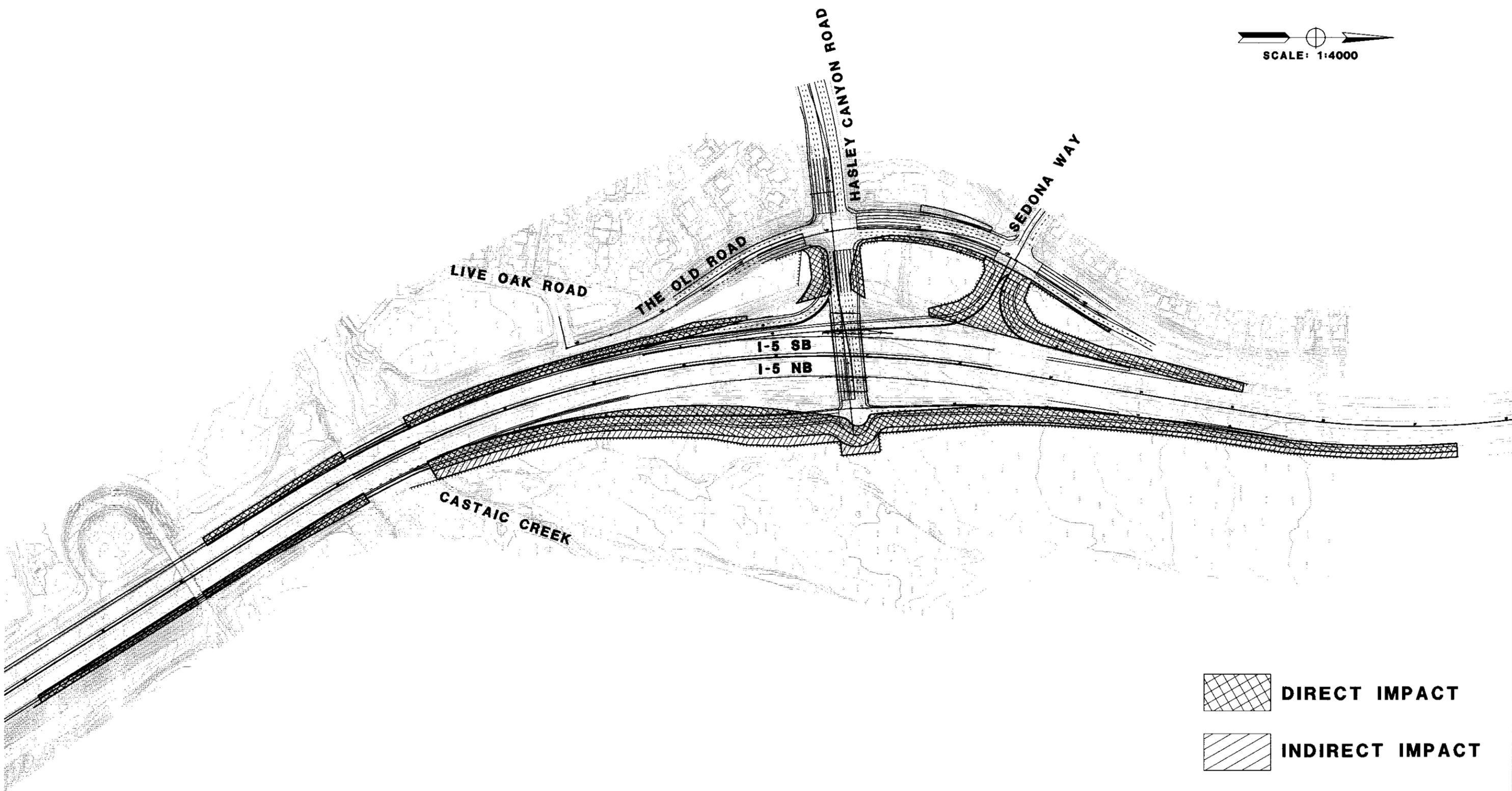
### **3.4.2 Housing**

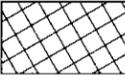
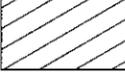
The rapid growth of Santa Clarita Valley is expected to continue until current economic or housing conditions change. The valley is perceived as a very attractive place to live, and there is a strong housing market (Valencia Company, 1999). Growth in the number of housing units within the Santa Clarita Valley is supported by the goals of the Santa Clarita Area Plan and the City General Plan, which seek to create a balance of jobs and housing. At the present time, the area is housing rich, but job poor. The Santa Clarita Area Plan developed by the County includes approximately 404.6 hectares (10,000 acres) of proposed new development outside the City of Santa Clarita. Most of this land is planned for single- and multiple-family residences, although significant areas are planned for the needed industrial and commercial land uses.

### **3.4.3 Employment**

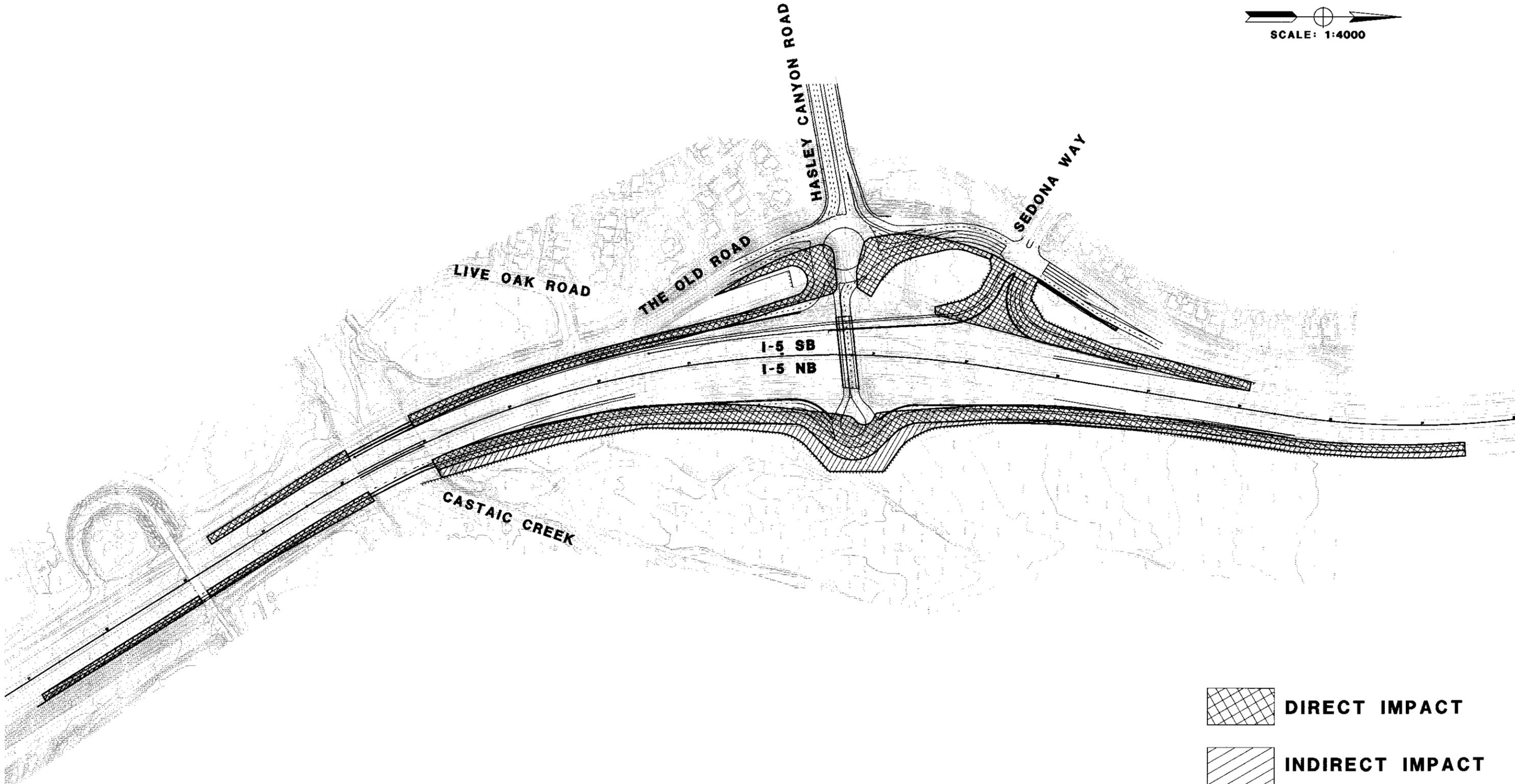
Although the Santa Clarita Valley is largely recognized as a suburban residential community, the City of Santa Clarita and surrounding development within the jurisdiction of Los Angeles County includes a diversity of employment opportunities. The largest employers in the area include Six Flags Magic Mountain (3,000 employees), Henry Mayo Newhall Memorial Hospital (1,072 employee), and the William S. Hart Unified School District (650 employees). The local labor force of about 43,000 is employed in a range of occupations. The largest occupational types include professional/technical (20.2 percent of the labor force), management (17.2 percent), clerical (16.8 percent), and sales (14.3 percent). The Valencia Commerce Center is located southwest of the I-5/Hasley Canyon Road interchange. As discussed in Section 2.3, it is a major expansion of the Valencia Industrial Center and is forecast to grow from the existing 20 hectares (49.9 acres) to approximately 120 hectares (296.5 acres) by the year 2020.

SCALE: 1:4000



 DIRECT IMPACT  
 INDIRECT IMPACT

SCALE: 1:4000



I-5/HASLEY CANYON ROAD  
HYBRID ALTERNATIVE  
FARMLAND AREA

FIGURE 12

## 3.5 Air Quality

The project area is located in the South Coast Air Basin (SCAB), a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains to the north and east. The climate of the SCAB is mild, tempered by cool sea breezes. With light average wind speeds, the atmosphere of the SCAB has a limited capability to disperse air contaminants horizontally. During periods of air stagnation, pollutants remaining in the SCAB are trapped and accumulate. Vertical dispersion of pollutants is hampered by the presence of a persistent inversion layer (typically 0.61 kilometers [2,000 feet] or less above sea level). Pollutants released to the atmosphere at or near ground level tend to form a uniform mixture between the ground and inversion layer base (SCAQMD, 1993).

The potential for high pollution levels varies seasonally for many contaminants. In the summer, reaction between reactive organic compounds (ROC) and oxides of nitrogen (NO<sub>x</sub>) can form photochemical oxidants, mainly ozone. In the winter, high levels of NO<sub>x</sub> can exist because of extremely low inversions, air stagnation during the late night and early morning hours, and the lack of intense sunlight that is needed for photochemical reactions. When strong inversions are formed on winter nights and are coupled with near-calm winds, carbon monoxide from automobile exhausts becomes highly concentrated. During the spring and summer, when fairly deep marine layers are frequently found in the SCAB, sulfate concentrations are at their peak (SCAQMD, 1993).

The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), respirable particulate matter less than 10 microns in size (PM<sub>10</sub>), and lead. These standards are designed to protect the most sensitive persons from illness or discomfort. California Ambient Air Quality Standards (CAAQS) are generally more stringent and include more pollutants than the NAAQS.

The South Coast Air Quality Management District (SCAQMD) operates a network of ambient monitoring stations within the SCAB. The I-5/Hasley Canyon Road interchange lies within the SCAB located in the southwestern portion of the state, which includes the greater Los Angeles metropolitan area. The nearest representative monitoring station for this project is located in Santa Clarita. Table 3-1 lists the pollutant levels recorded at this station from 1994 to 1996. The area is classified as non-attainment for ozone, CO and PM<sub>10</sub> and as shown in the table, ozone and PM<sub>10</sub> exceeded the California standard on at least five occasions during each of these 3 years. Concentrations of sulfur dioxide, sulfates, lead, and visibility-reducing particles were not measured at this station; however, this area was either classified as "attainment" or "unclassified" for these four components in 1998 (CARB, 1999). For further, more detailed information, refer to the separate Air Quality Analysis report (CH2M HILL, 2000).

**TABLE 3-1**  
Summary of Ambient Monitoring Levels at the Santa Clarita Station

Pollutant	Averaging Time	1994	1995	1996
CO (ppm)	1-Hour	8 (0)	7 (0)	7 (0)
	8-Hour	3.9 (0)	4.1 (0)	3.9 (0)
Ozone (ppm)	1-Hour	0.26 (118)	0.21 (71)	0.17 (68)
Nitrogen Dioxide (ppm)	Annual Average	0.032	0.030	NA a
	1 Hour	0.12 (0)	0.16 (0)	NA a
PM10 ( $\mu\text{g}/\text{m}^3$ )	Annual Geometric Mean	31.7 b	31.2	29.6
	Annual Arithmetic Mean	35.8 b	37.0	33.1
	24-Hour	66 (13) c	87 (13) c	91 (5) c

<sup>a</sup> Nitrogen dioxide was not measured at this site in 1996.

<sup>b</sup> Data presented are valid but incomplete in that an insufficient number of valid data points were collected to meet EPA and/or ARB criteria for representativeness.

<sup>c</sup> 24-hour PM10 samples were collected on 58 days in 1994, 61 days in 1995, and 53 days in 1996.

Notes: Hydrogen sulfide, vinyl chloride, and visibility-reducing particles are not monitored in the South Coast Air Basin.

() = number of days in which a violation of either the state or national standard, whichever is more stringent, was recorded during the year.

Source: California Air Resources Board, California Air Quality Data, Annual Summaries, 1994-1996.

## 3.6 Water Resources

### 3.6.1 Surface Water

The proposed project is located within the vicinity of Castaic Creek, which originates approximately 27 kilometers (17 miles) north of the I-5/Hasley Canyon Road interchange, in the Angeles National Forest. Within the project area, Castaic Creek flows southwest, crossing I-5 approximately 500 meters (1,640 feet) south of the I-5/Hasley Canyon Road interchange, to its confluence with the Santa Clara River. After the two drainage courses converge, the Santa Clara River flows west to the coast where it drains into the Pacific Ocean near the City of San Buenaventura. The Santa Clara River is not a wild or scenic river, as designated by the National Wild and Scenic Rivers System (National Park Service, National Wild and Scenic Rivers System, 1999).

South of the project vicinity, the Santa Clara River is a permanent stream with highly seasonal flows ranging from 1.1 to 2.0 cubic meters per second (cms) (40 to 70 cubic feet per second [cfs]) during the winter months, and less than 0.08 cms (3 cfs) during the low-flow, summer season (USGS, Water Resources Data, Santa Clara River at Saugus). Total annual precipitation in the area averages approximately 45 centimeters (18 inches) per year, with almost all precipitation in the November through March period (National Weather Service, 1999).

Castaic Creek is located to the east of and crosses I-5 within the project limits to the south of the I-5/Hasley Canyon Road interchange. It then continues flowing southwest, where it converges with the Santa Clara River. Castaic Creek is an ephemeral creek with rainy season flows and extended dry periods. As discussed in Section 3.8, the creek offers

potential aquatic habitat for three listed species of fish known to be in the area. As a result, this portion of Castaic Creek is considered part of a Significant Natural Area (SNA), as determined by California Department of Fish and Game, however, it has not been designed as a Significant Ecological Area (SEA) by the County of Los Angeles. Because Castaic Creek drains into the Santa Clara River, special consideration needs to be taken with regard to impacts from the proposed project eventually affecting the Santa Clara River SEA.

Existing surface water quality information is not available through direct surface water monitoring results; however, surface water quality can be inferred through local water supply records. As discussed above, Castaic Creek is an ephemeral stream that periodically dries during the summer and fall; the Santa Clara River also has a strongly seasonal flow. The implication of these seasonal patterns is that the extended low flow periods of both streams during dry seasons should tend to cause their water quality to approximate that of local groundwater. Groundwater quality has been characterized by the Newhall County Water District, which uses local wells for municipal supplies (in contrast to other local suppliers that include blended State Water Project surface water).

The physical characteristics of local surface waters within the project vicinity can be inferred based on well data at Newhall (Castaic Lake Water Agency, 1999) during predominantly low-flow periods. These characteristics include the following:

- Hardness— 308 milligrams per liter (mg/L)
- pH—7.4 (nearly neutral)
- Nitrate levels—2.8 mg/L (low nitrate-N level)
- Total dissolved solids (TDS) concentration— approximately 535 mg/L

It is expected that high winter storm flows typically act to dilute the hard water and total dissolved solids (TDS) and to add silt to the stream. These water quality characteristics are typical for the warm water streams and are supportive of the aquatic life and SEA designations for listed fish species in Southern California.

The project area is not located within the coastal zone management program area, and no coastal barriers are located within the project area.

### 3.6.2 Groundwater

The proposed project is located within the Eastern Groundwater Basin of the Santa Clara River Valley Basin. The Basin includes alluvial sediments along the river and its tributaries and deeper Saugus Formation sediments that underlie the alluvium. Depth to water in the alluvial aquifer varies greatly due to the seasonal and long-term variation in the amount of recharge and discharge.

The Los Angeles Regional Water Quality Control Board (RWQCB) has designated four existing beneficial uses for the groundwater in the project area. These include water supply for the following uses: municipal/domestic uses, industrial services, industrial processes, and agricultural supply. The majority of water extraction within the Santa Clara Valley occurs along the Santa Clara River. The largest groundwater user in the project area is the Newhall Land and Farming Company, which operates 25 to 30 wells primarily for agricultural purposes. Several other private water purveyors also extract groundwater for municipal and industrial uses. These include the Los Angeles County Waterworks District

No. 35 (for the Wayside Honor Rancho), the Santa Clarita Water Company, the Newhall County Water District, and the Valencia Water Company. Total groundwater extractions by the purveyors from the alluvial aquifer ranged between 9.7 and 17 cubic meters (12,000 to 21,000 acre-feet) from 1987 to 1994 (Castaic Lake Water Agency, 1996).

### 3.7 Wetlands

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (ACOE) regulates the discharge of fill and dredged material into “waters of the United States,” which are broadly defined in 33 CFR 328.3(a). The limits of ACOE 404 jurisdiction are defined as the ordinary high water mark, unless adjacent wetlands are present. The term “ordinary high water mark” means the line on the shore or edge of a channel established by the fluctuation of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, destruction of vegetation, debris, etc. A Preliminary Wetlands/Jurisdictional Delineation (BonTerra Consulting, 2000), published on January 5, 2000, concluded that the area considered jurisdictional by the ACOE and CDFG does not meet the wetland criteria as defined by the ACOE.

Jurisdictional limits of the CDFG are similar to the jurisdiction of ACOE, but include riparian habitat supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. The limits of CDFG jurisdiction are often defined by riparian vegetation and generally includes the streambed and associated riparian vegetation (e.g., mule fat scrub/braided channel).

A recent biological constraints survey was conducted for this proposed project (BonTerra, 1999). As part of the constraints survey, a search of available, relevant literature was conducted for the proposed project area; a survey of the project site was also conducted. The results of the survey indicated that there were no jurisdictional wetlands within Castaic Creek within the study area. However, a total of 0.38 hectare (0.95 acre) of “waters of the U.S.”/CDFG wetlands are located in the study area. The jurisdiction of the ACOE and CDFG is shown in Figure 13.

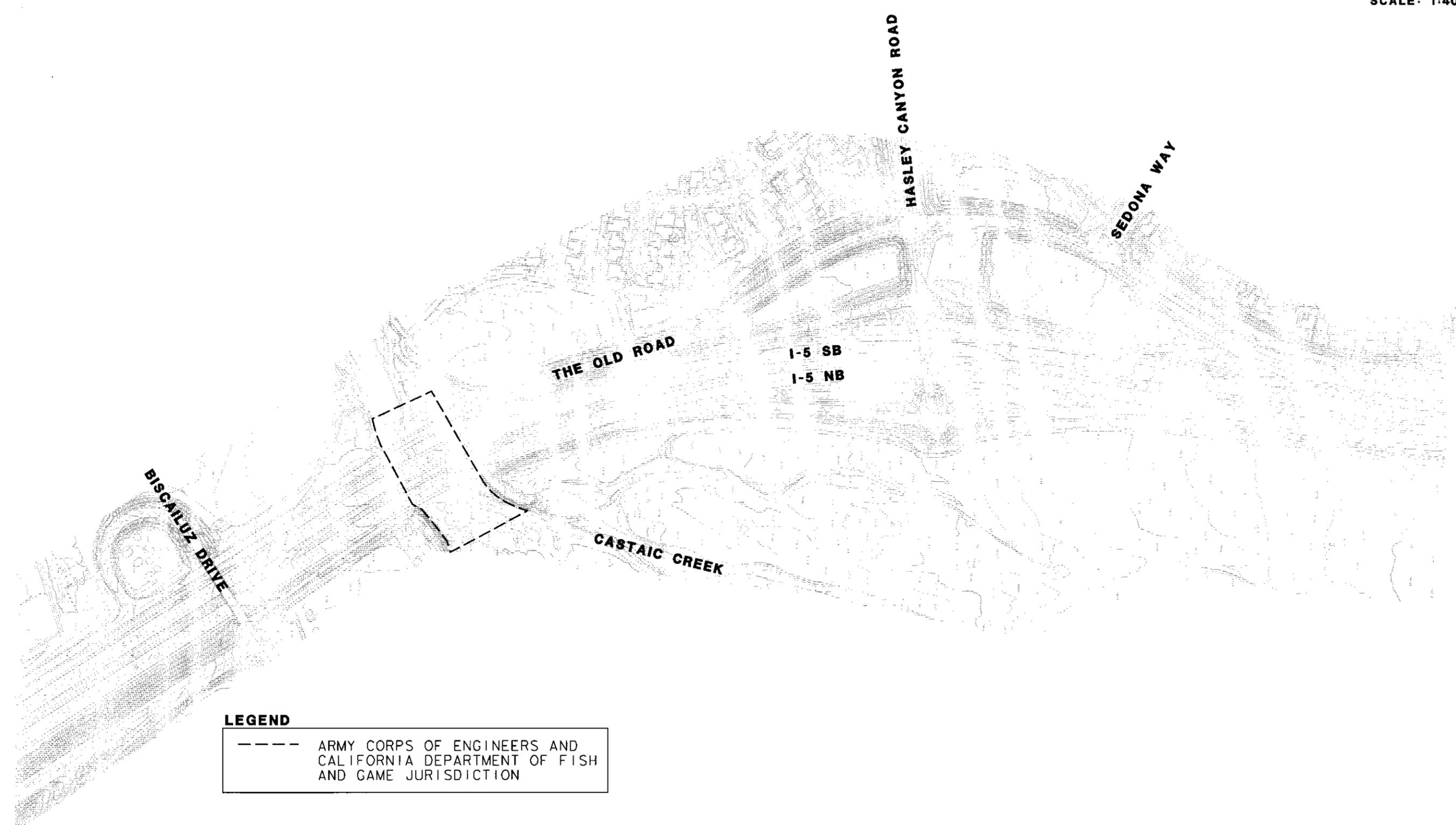
### 3.8 Vegetation and Wildlife Resources

A Natural Environment Study (BonTerra Consulting, 2000) was conducted for this proposed project. The findings of this survey are summarized below.

#### 3.8.1 Vegetation

Vegetation within the study area includes mule fat scrub/braided channel, disturbed mixed sage scrub, disturbed/ruderal, ornamental, agricultural, and developed.

The mule fat scrub portion of the study area is the active channel of Castaic Creek. This channel includes areas of riparian herb dominated by mule fat (*Baccharis salicifolia*). Other species present include western ragweed (*Ambrosia psilostachya*), bicolor everlasting (*Gnaphalium bicolor*), western sunflower (*Helianthus annuus*), salt heliotrope (*Heliotropum curassavicum* ssp. *oculatum*), tree tobacco (*Nicotiana glauca*), desert arrowweed (*Pluchea sericea*), rabbit-foot grass (*Polypogon monspeliensis*), and Fremont cottonwood (*Populus*



**LEGEND**  
----- ARMY CORPS OF ENGINEERS AND CALIFORNIA DEPARTMENT OF FISH AND GAME JURISDICTION

**ACOE AND CDFG JURISDICTION  
I-5/HASLEY CANYON ROAD  
INTERCHANGE**

*fremontii* ssp. *fremontii*). The invasive species giant reed (*Arundo donax*) and salt cedar (*Tamarix ramosissima*) have also invaded this portion of Castaic Creek. Non-native plant species are common within areas in Southern California (such as existing freeway interchanges) that have been subject to past disturbance. The proposed project is not expected to substantially increase the occurrence of these weeds outside the project limits. Unvegetated sandy benches are also present in this area.

The disturbed mixed sage scrub vegetation type is located along the western side of The Old Road north of Sedona Way, and along the medians between the I-5 and its on- and off-ramps; these areas are considered very degraded. The dominant species within this vegetation type are California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and non-native grasses (*Avena* sp. and *Bromus* sp.). These patches are composed almost exclusively of these species.

Disturbed/ruderal areas in the study area are located adjacent to roads and development, graded areas, and other disturbed areas. These areas are primarily composed of bare ground with a low density of non-native and weedy species. Species in this vegetation type include western ragweed, slender oat (*Avena* sp.), black mustard (*Brassica nigra*), California croton (*Croton californicus*), Bermuda grass (*Cynodon dactylon*), jimsonweed (*Datura wrightii*), doveweed (*Eremocarpus setiger*), western sunflower, telegraph weed (*Heterotheca grandiflora*), prickly lettuce (*Lactuca serriola*), tree tobacco, common purslane (*Portulaca oleracea*), Russian thistle (*Salsola australis*), sand wash butterweed (*Senecio flaccidus* var. *douglasii*), and chaparral nightshade (*Solanum xanti*).

Ornamental species have been planted near development and along roads for either ornamental purposes or windrows, or they consist of remnant native trees. Tree species in the study area include white alder (*Alnus rhombifolia*), California incense-cedar (*Calocedrus decurrens*), silver dollar gum (*Eucalyptus polyanthemos*), gum (*Eucalyptus* sp.), ash (*Fraxinus* sp.), privet (*Ligustrum* sp.), Fremont cottonwood, fruit trees (*Prunus* sp.), Brazilian pepper tree (*Schinus terebinthifolius*), and blue oak (*Quercus douglasii*). Understory ornamental species include red-apple iceplant (*Aptenia cordifolium*), geranium (*Geranium* sp.), bamboo (*Phyllostachys* sp.), and canna lily (*Canna* sp.).

Developed areas and agricultural fields contain little vegetation. Agricultural fields within the study area are currently active and are located west of I-5 between Honor Ranch Road and Live Oak Road. The fields are surrounded by disturbed/ruderal areas. The developed portions of the study area include residential, commercial, and industrial complexes. These areas are surrounded by ornamental vegetation as discussed above.

### 3.8.2 Wildlife Habitat

The vegetation types within the study area provide habitat for a host of wildlife species. Common bird species observed during the survey included great blue heron (*Ardea herodias*), great egret (*Ardea albus*), killdeer (*Charadrius vociferus*), rock dove (*Columba livia*), mourning dove (*Zenaidura macroura*), Anna's hummingbird (*Calypte anna*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), wrenit (*Chamaea fasciata*), Brewer's blackbird (*Euphagus cyanocephalus*), and house finch (*Carpodacus mexicanus*). The spotted towhee (*Pipilo*

*maculatus*), California towhee (*Pipilo crissalis*), loggerhead shrike (*Lanius ludovicianus*), northern mockingbird (*Mimus polyglottos*), oak titmouse (*Baeolophus inornatus*), Bewick's wren (*Thryomanes bewickii*), phainopepla (*Phainopepla nitens*), song sparrow (*Melospiza melodia*), white-crowned sparrow (*Zonotrichia leucophrys*), western meadowlark (*Sturnella neglecta*), and lesser goldfinch (*Carduelis psaltria*) would also be expected to occur since many of these species were observed just outside the study area. In addition, the nests of cliff swallows (*Hirundo pyrrhonota*) were observed outside of the study area under the newly-constructed Commerce Center Drive bridge across Castaic Creek. No cliff swallow nests were observed under The Old Road/I-5 bridge over Castaic Creek in the study area.

Mammals observed or detected in the study area include the Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), woodrat (*Neotoma* sp.), and raccoon (*Procyon lotor*). Other mammals expected to occur include the western gray squirrel (*Sciurus griseus*), deer mouse (*Peromyscus maniculatus*), California pocket mouse (*Perognathus californicus*), California mouse (*Peromyscus californicus*), western harvest mouse (*Reithrodontomys megalotis*), brush rabbit (*Sylvilagus bachmani*), and desert cottontail (*Sylvilagus audubonii*). Larger mammals, including both herbivores and carnivores, observed or expected on the study area include the Virginia opossum (*Didelphis virginiana*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), striped skunk (*Mephitis mephitis*), bobcat (*Felis rufus*), and mule deer (*Odocoileus hemionus*).

Bats occur throughout most of Southern California and may use any portion of the study area as foraging habitat. The riparian vegetation types provide potential roosting opportunities for several bat species. Most of the bats that could potentially occur in the study area are inactive during the winter and either hibernate or migrate, depending on the species. The Yuma myotis (*Myotis yumanensis*), California myotis (*Myotis californicus*), and big brown bat (*Eptesicus fuscus*) may all occur on the study area. No bats were observed roosting under The Old Road/I-5 bridge over Castaic Creek; however, potential roosting habitat for species that will nest in man-made structures is available.

Reptilian diversity and abundance typically varies with vegetation type and character. Many species prefer only one or two vegetation types; however, most will forage in a variety of habitats. Most species occurring in open areas use rodent burrows for cover, protection from predators, and extreme weather conditions. Reptile species observed during the surveys in the study area include the side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*). Other reptiles expected to occur in the study area include southern alligator lizard (*Gerrhonotus multicarinatus*), western skink (*Eumeces skiltonianus*), gopher snake (*Pituophis melanoleucus*), western yellow-bellied racer (*Coluber constrictor*) and western rattlesnake (*Crotalus viridis*).

### 3.8.3 Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information.

In general, the hills above Castaic Creek, and the Santa Clara River and its tributaries, are undeveloped, or contain scattered croplands and residences. Lands in the floodplain are mostly developed for commercial, industrial, and agricultural uses. The Santa Clara River, which traverses these floodplains, represents an important wildlife corridor because: (1) the river is mostly undeveloped and contains native riparian habitat; (2) the width of the river is generally 213 meters or more; and (3) the river and its tributaries provide linkages between the proposed project and regional habitat areas. The Santa Clara River and its tributaries, such as San Francisquito Creek, provide linkages east and north to the Angeles National Forest. The Santa Clara River also extends west to the Santa Clara River Valley where tributary creek and pasture lands on the south side of the river provide linkages to the Santa Susana Mountains. Castaic Creek provides access to the Angeles National Forest via Castaic Dam and its associated recreational area. Overall, both of these waterways provide high quality regional wildlife corridors.

### 3.8.4 Special-Status Plant and Wildlife Species

Plants or animals may be considered to have "special status" due to declining populations, vulnerability to habitat change, or restricted distributions. Certain special-status species have been listed as Threatened or Endangered under state and/or federal Endangered Species Act (ESA).

#### Plant Species

Nine special-interest plant species could occur in the project vicinity. The details on each of these species are discussed in the Natural Environment Study (BonTerra, 2000). Two of these species are state- and/or federal-listed endangered species: Nevin's barberry (*Berberis nevini*) and slender-horned spineflower (*Dodecahema leptoceras*). Suitable habitat is not present for either of these species within the project area. The remaining seven species, listed below, have a potential to occur within the study area:

- Slender mariposa lily (*Calochortus clavatus* var. *gracilis*)
- Plummer's mariposa lily (*Calochortus plummerae*)
- Peirson's morning-glory (*Calystegia peirsonii*)
- San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)
- Palmer's grapplinghook (*Harpagonella palmeri*)
- Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)
- Rayless ragwort (*Senecio aphanactis*)

#### Wildlife Species

There are 48 special-status wildlife species that could occur in the region containing the proposed project location. The details on each of these species are discussed in the Natural Environment Study (BonTerra, 2000). Ten of these species are not expected to occur within the study area due to lack of suitable habitat: Quino checkerspot (*Euphydryas editha quino*), California red-legged frog (*Rana aurora draytonii*), Swainson's hawk (*Buteo swainsoni*), Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Southern willow flycatcher (*Empidonax traillii extimus*), Summer tanager (*Piranga rubra*), Coastal California gnatcatcher (*Poliophtila californica californica*), Least Bell's vireo (*Vireo bellii pusillus*), California leaf-nosed

bat (*Macrotis californicus*), and San Diego desert woodrat (*Neotoma lepida intermedia*). However, habitat within the study area could potentially support the remaining species.

### **Fish**

- Santa Ana sucker (*Catostomus santaanae*)—a federally proposed threatened species and a California Species of Special Concern
- Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) – a federal and California endangered species
- Arroyo chub (*Gila orcutti*)—a federal Species of Concern

### **Amphibians**

- Arroyo toad (*Bufo microscaphus californicus*)—federally endangered and a California protected Species of Special Concern

### **Reptiles**

- Silvery legless lizard (*Anniella pulchra pulchra*)—a federal Species of Concern and a California Species of Special Concern
- Western pond turtle (*Clemmys marmorata*)—a state and federal Species of Concern
- Coastal western whiptail (*Cnemidophorus tigris multiscutatus*)—a federal Species of Concern
- San Bernardino ringneck snake—(*Diadophis punctatus modestus*)—a federal Species of Concern and a California Special Animal
- Coastal rosy boa (*Lichanura trivirgata roseofusca*)—a federal Species of Concern and a California Special Animal
- Coast horned lizard (*Phrynosoma coronatum frontale*)—a federal Species of Concern and a California protected Species of Special Concern
- Coast patchnose snake (*Salvadora hexalepis virgulata*)—a federal Species of Concern and a California Species of Special Concern
- Two-striped garter snake (*Thamnophis hammondi*)—a federal Species of Concern and a protected California Species of Special Concern

### **Birds**

- Cooper's hawk (*Accipiter cooperii*)—a California Species of Special Concern
- Sharp-shinned hawk (*Accipiter striatus*)—a California Species of Special Concern
- Tricolored blackbird (*Agelaius tricolor*)—a federal Species of Concern and a California Species of Special Concern
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)—a federal Species of Concern and a California Species of Special Concern

- Bell's sage sparrow (*Amphispiza belli belli*)—a federal Species of Concern and a California Species of Special Concern
- Golden eagle (*Aquila chrysaetos*)—a fully protected California Species of Special Concern
- Long-eared owl (*Asio otus*)—a California Species of Special Concern
- Burrowing owl (*Athene cunicularia*)—a federal Species of Concern and a California Species of Special Concern
- Ferruginous hawk (*Buteo regalis*)—a federal Species of Concern and a California Species of Special Concern
- Northern harrier (*Circus cyaneus*)—a California Species of Special Concern
- Western yellow warbler (*Dendroica etechia brewsteri*)—a California Species of Special Concern
- White-tailed kite (*Elanus leucurus*)—a California fully protected species
- California horned lark (*Eremophila alpestris actia*)—a California Species of Special Concern
- Merlin (*Falco columbarius*)—a California Species of Special Concern
- Prairie falcon (*Falco mexicanus*)—a California Species of Special Concern
- Yellow-breasted chat (*Icteria virens*)—a California Species of Special Concern
- Loggerhead shrike (*Lanius ludovicianus*)—a federal Species of Concern and a California Species of Special Concern

### **Mammals**

- Pallid bat (*Antrozus pallidus*)—a California Species of Special Concern
- Pale Townsend's big-eared bat (*Corynorhinus townsendii pallenscens*)—a federal Species of Concern and a California Species of Special Concern
- Spotted bat (*Euderma maculatum*)—a federal Species of Concern and a California Species of Special Concern
- California mastiff bat (*Eumops perotis californicus*)—a federal Species of Concern and a California Species of Special Concern
- San Diego black-tailed jackrabbit (*Lepus californicus bennittii*)—a federal Species of Concern and a California Species of Special Concern
- Small-footed myotis (*Myotis ciliolabrum*)—a federal Species of Concern
- Yuma myotis (*Myotis yumanensis*)—a federal Species of Concern
- Southern grasshopper mouse (*Onychomys torridus ramona*)—a federal Species of Concern and a California Species of Special Concern

- American badger (*Taxidea taxus*) – a California Special Animal

## 3.9 Floodplain

As discussed in the Floodplain Evaluation (CH2M HILL, 2000) and Location Hydraulic Study (CH2M HILL, 2000), land adjacent to Castaic Creek is located in the 100-year floodplain designated by Federal Emergency Management Agency (FEMA) and in the Capital Floodplain designated by the Los Angeles County Department of Public Works (LACDPW) (Figure 14). The Capital Floodplain includes all land subject to flooding during a Capital Flood<sup>1</sup>. According to the County Floodplain Ordinance, land development in the Capital Floodplain can occur if appropriate flood protective measures are implemented according to the requirements of the LACDPW. These measures require that the bottom elevations of all structures be at least 1 foot above the design flood. In addition, any structures that would increase the design flood more than 0.3 meter (1 foot) must be offset by nearby approved stream improvements.

## 3.10 Historic and Cultural Resources

A study to identify potentially historic properties in the Area of Potential Effects (APE) of the project and to evaluate the eligibility of any identified properties for listing in the National Register of Historic Places was conducted in March 2000 (Greenwood & Associates). The Historic Property Survey Report (HPSR) prepared for the project indicates that no significant historic resources exist in the project area.

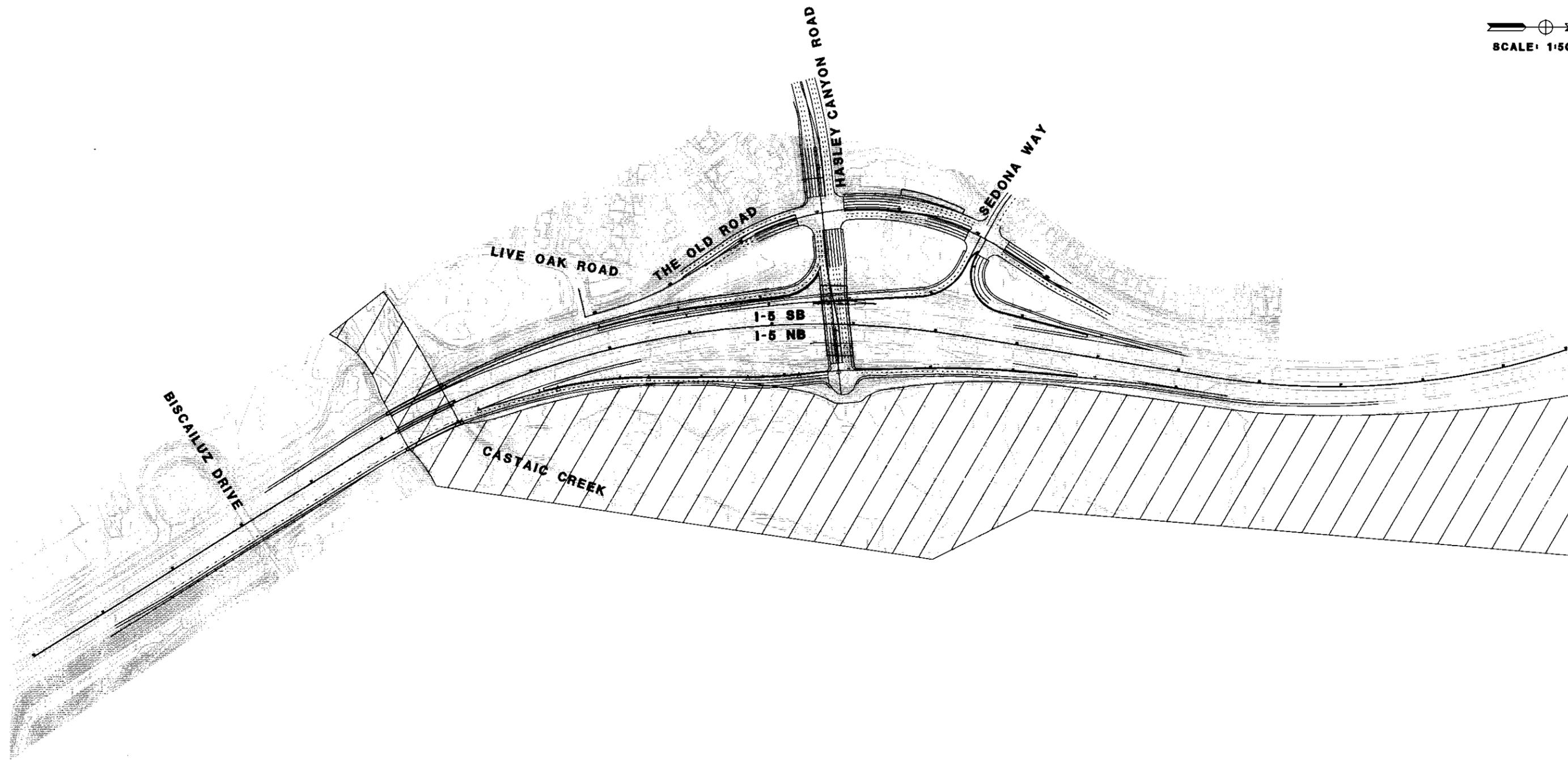
The findings showed that the buildings located in the APE (Figure 15) consist of suburban residential, commercial and office buildings. The commercial and office buildings in the APE date from post 1950. None of the buildings exhibit exceptional architectural importance, nor do they meet National Register criteria. Furthermore, no culturally significant sites were identified during the field survey.

A record search was undertaken by the South Central Coastal Information Center, University of California, Los Angeles. The records search revealed that no previously recorded historic or prehistoric resources are located within a 1.6-kilometer (1-mile) radius of the project area. A physical examination of the surface area did not indicate the presence of culturally sensitive resources, although these resources may be located in subsurface deposits within the project area.

The National Register of Historic Places lists no properties within a 1.6-kilometer (1-mile) radius of the project area. Also, the listings of the California Historical Landmarks (1990), California Department of Parks and Recreation, indicate that there are no California Historical Landmarks within a 1.6-kilometer (1-mile) radius of the project area. The California Points of Historical Interest (1992) also identifies no properties within a 1.6-kilometer (1-mile) radius of the project area.

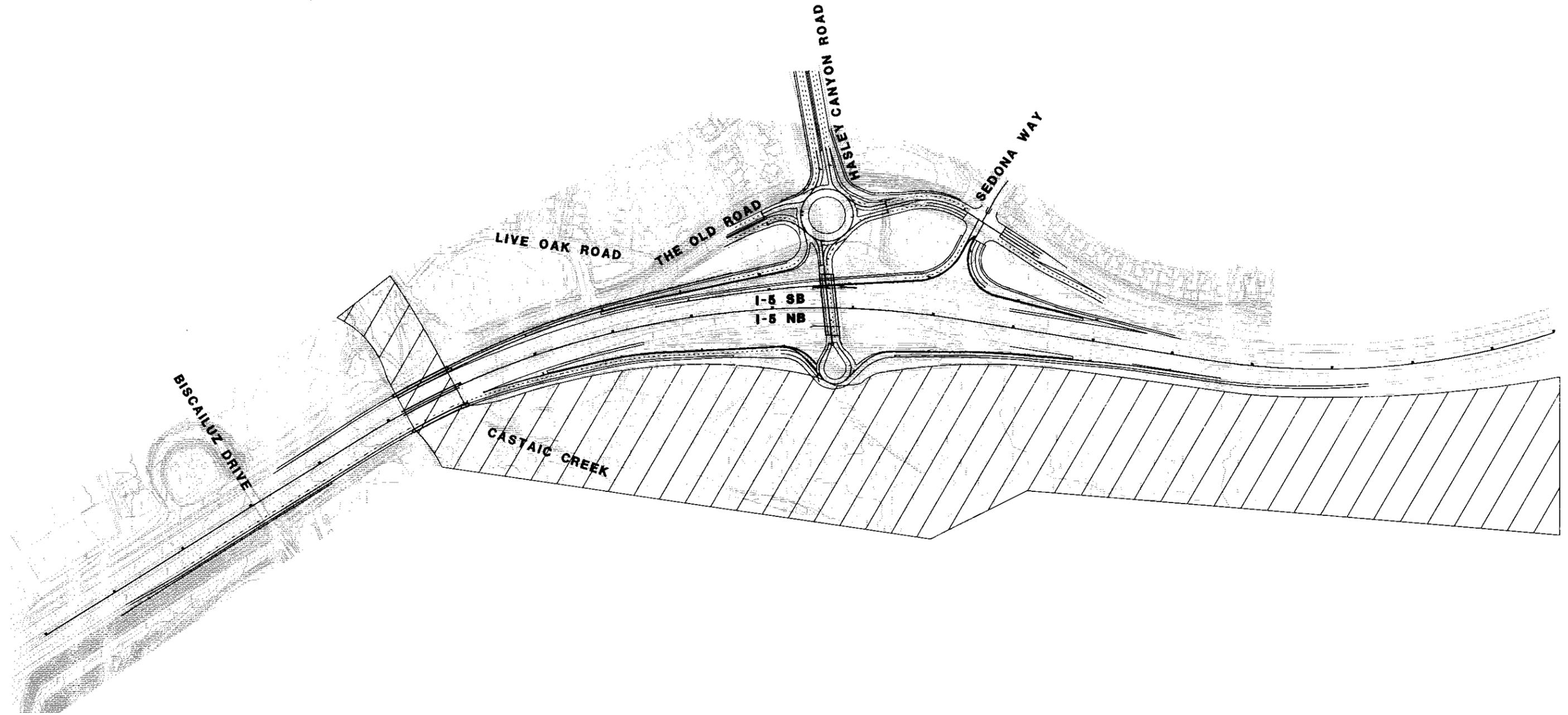
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<sup>1</sup> A Capital Flood is defined as the discharge resulting from a hypothetical 4-day storm with a 50-year return period falling on a saturated watershed with debris from a wildfire. The Capital Flood discharge greatly exceeds the 100-year discharge calculated by FEMA.



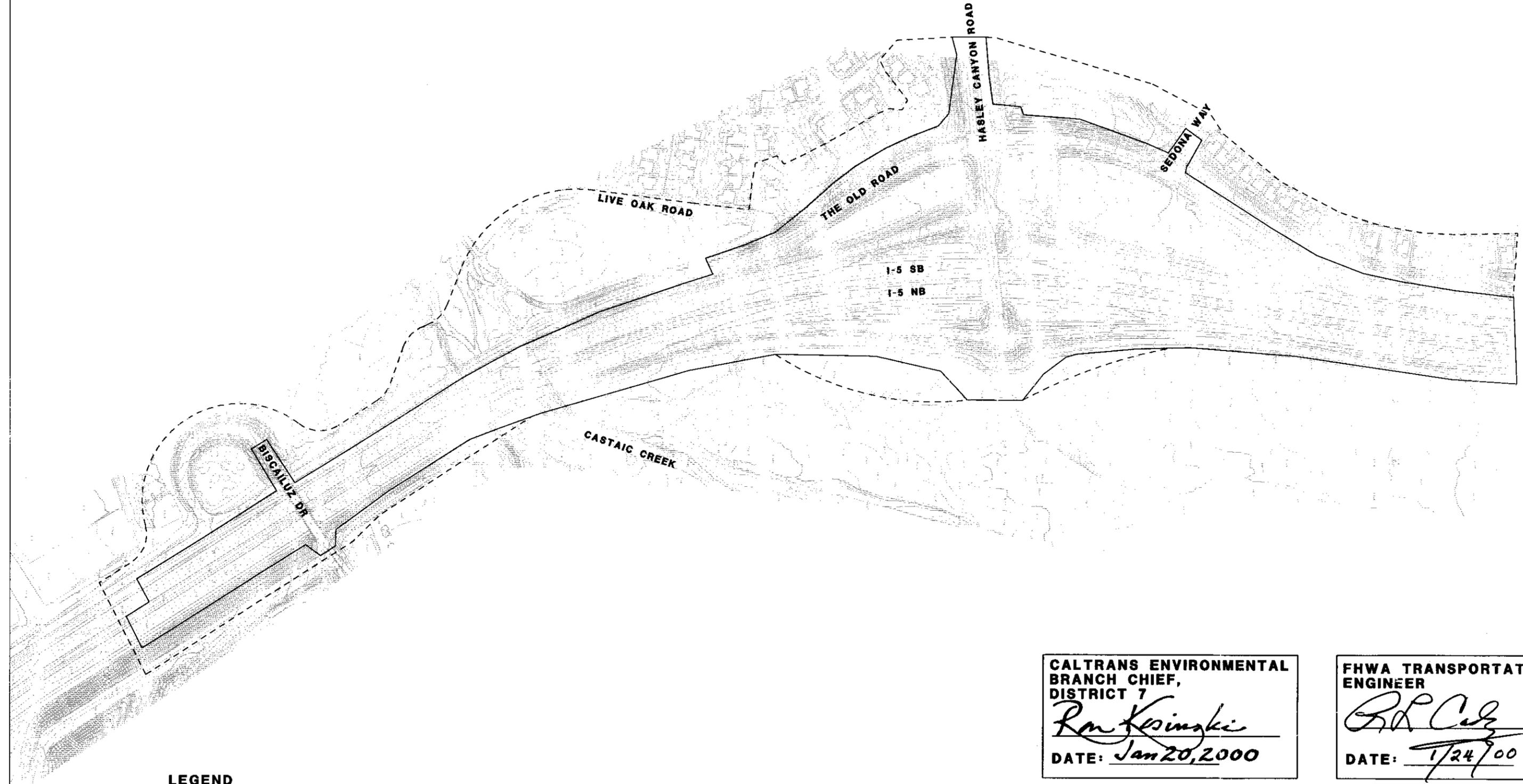
SOURCE: NATIONAL FLOOD INSURANCE PROGRAM.  
FLOOD INSURANCE RATE MAP.  
LOS ANGELES COUNTY, CA  
(UNINCORPORATED AREAS) PANELS 340 & 345 OF 1275.  
DEC. 2, 1980

 FLOODPLAIN



SOURCE: NATIONAL FLOOD INSURANCE PROGRAM.  
FLOOD INSURANCE RATE MAP.  
LOS ANGELES COUNTY, CA  
(UNINCORPORATED AREAS) PANELS 340 & 345 OF 1275.  
DEC. 2, 1980

 FLOODPLAIN



**LEGEND**  
—— DIRECT APE  
- - - - INDIRECT APE

CALTRANS ENVIRONMENTAL  
BRANCH CHIEF,  
DISTRICT 7  
*Ron Kesinger*  
DATE: Jan 20, 2000

FHWA TRANSPORTATION  
ENGINEER  
*R.P. Cole*  
DATE: 1/24/00

**I-5/HASLEY CANYON ROAD  
INTERCHANGE  
AREA OF POTENTIAL EFFECTS**

## 3.11 Hazardous Waste

An Initial Site Assessment (ISA) was conducted for the proposed project (CH2M HILL, 1999). The following work was conducted as part of the ISA:

- A site reconnaissance was performed in May 1998 to visually inspect the site, to complete the Caltrans ISA checklist, to assess current land usage, and to identify recognized environmental conditions that may be present at the properties.
- Regulatory agency databases and six historical aerial photographs were reviewed to identify potentially contaminated sites located at or adjacent to the proposed project.
- A chain-of-title search was performed to determine current and previous ownership information, as well as indicate whether any leases for oil exploration activities were given for the project area.

A standard Caltrans ISA Checklist was completed for the project site. The following list summarizes the conclusions regarding potential recognized environmental conditions for the project area:

- Past land use records indicate that portions of the project area were farmland from at least 1952 (date of earliest aerial photograph reviewed) to 1972. As a result of this past land use, elevated levels of nitrates in the groundwater potentially exist at the site. In addition, there is a potential for residual concentration of pesticides/herbicides in soil resulting from routine applications associated with past agricultural land use at the subject areas.
- No recognized environmental conditions were observed during a May 1998 site visit. In addition, no evidence of recognized environmental conditions was observed at directly adjacent properties during the site visit.
- A review of the environmental databases identified a number of nearby sites with potential environmental concerns. Elevated levels of petroleum in soils and groundwater resulting from underground storage tank (UST) releases have occurred at locations within 0.2 km (1/8 mile) of the proposed project. In addition, a solid waste landfill with reported minor groundwater contamination is located within 0.4 km (1/4 mile) of the subject area. Groundwater elevation is between 3 and 6 meters (10 and 20 feet) below ground surface.
- Research of chain-of-title information did not reveal leases for oil exploration or other leases that indicated environmental concern.

## 3.12 Visual

The Santa Clarita Valley consists of a mixture of undeveloped and developed landscapes. It is a rapidly growing region that has experienced substantial changes in land use over the past 10 years with the continual expansion of the urban land uses. The valley has been transformed from a landscape dominated by croplands on the floodplain with undeveloped hills, to a complex urban landscape with scattered open space.

### 3.13 Noise

Vehicular traffic on I-5 is the dominant source of noise in the project area. Other environmental noise sources contributing to the ambient noise environment include traffic on local roadways, including Hasley Canyon Road and The Old Road, and occasional distant aircraft overflights. Existing developed lands in the project area include single-family homes west of I-5 on both sides of Hasley Canyon Road and a commercial development southwest of the interchange. The vacant lot located at the northwest corner of the intersection at Hasley Canyon Road and The Old Road is zoned as commercial.

Noise level measurements and concurrent traffic counts were conducted in areas west of I-5 during afternoon peak traffic hours (between 4:59 and 5:35 p.m.) on September 23, 1999. Noise level measurements were conducted at four locations as shown in Figure 16. These locations are described in the Noise Analysis Report (CH2M HILL, 2000). Results of the noise level measurements are shown in Table 3-2.

**TABLE 3-2**  
Existing Noise Level Measurements

Site	Time	Leq (dBA)	Lmax (dBA)	Source(s)
1	4:59-5:09 P.M.	71.0	75.9	Traffic on I-5 and The Old Road
2	4:59-5:09 P.M.	57.8	65.3	Traffic on I-5 and The Old Road
3	5:25-5:35 P.M.	60.3	66.0	Traffic on I-5
4	5:25-5:35 P.M.	70.9	78.0	Traffic on I-5

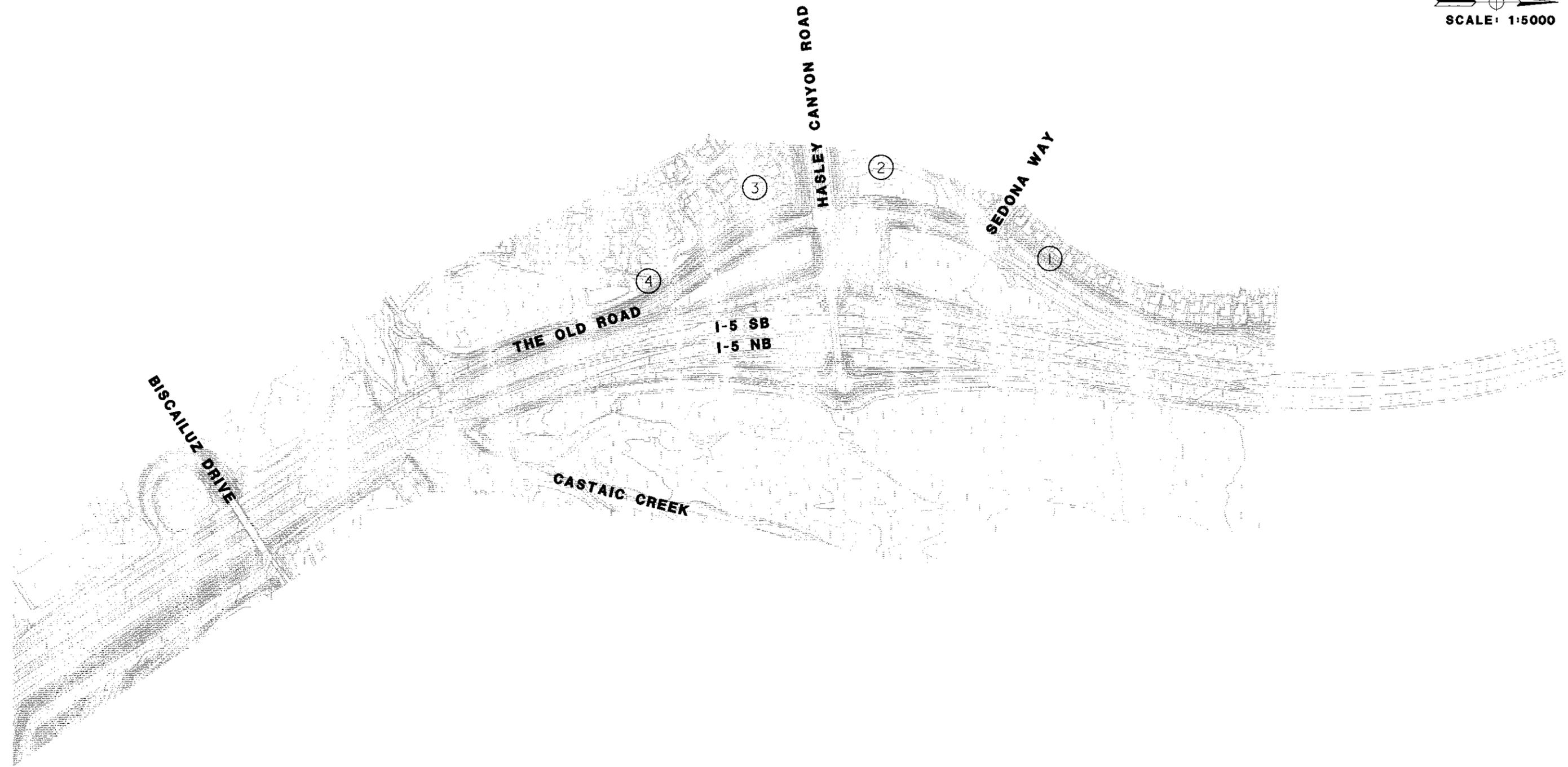
Leq = Equivalent sound level

Lmax = Maximum sound level in a specific time period

dBA = decibels A-weighted

Source: CH2M HILL, May, 2000.

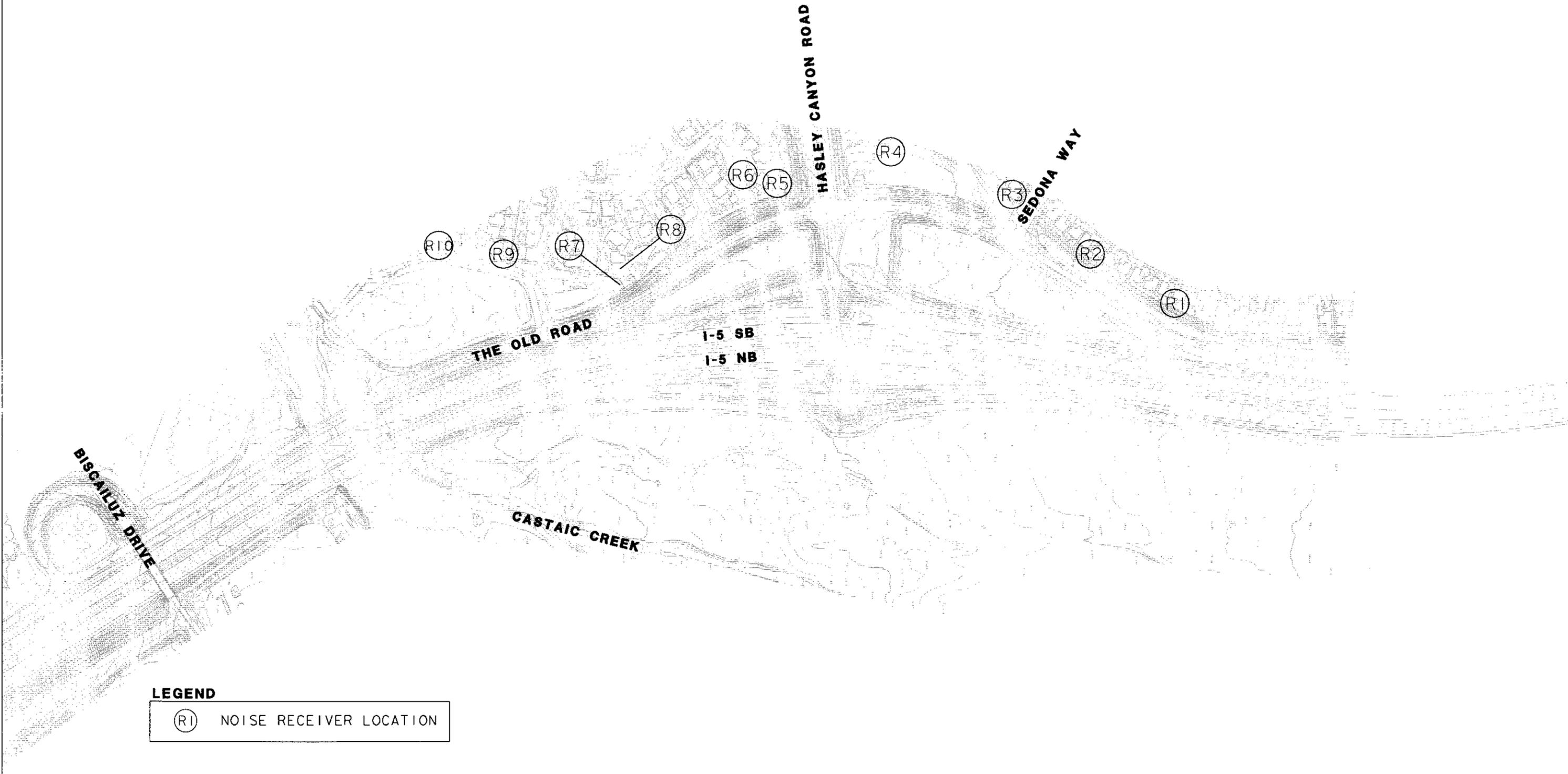
There were 10 receiver locations selected for use in predicting existing traffic noise levels. The receiver locations are identified in Figure 17 as R1 through R10. To calculate existing peak-hour noise levels, traffic data generated for the project (Austin Foust, 1999) were used in the FHWA model. Existing peak-hour traffic noise levels for the selected receiver locations are summarized in Table 3-3. FHWA, Caltrans, and Los Angeles County criteria are shown for comparison.



**LEGEND**

① NOISE LEVEL MEASUREMENT LOCATION

**NOISE LEVEL MEASUREMENT LOCATIONS  
I-5/HASLEY CANYON ROAD  
INTERCHANGE**



**NOISE RECEIVER LOCATIONS  
I-5/HASLEY CANYON ROAD  
INTERCHANGE**

**TABLE 3-3**  
Existing Peak-Hour (P.M.) Noise Levels (in dBA)

Receiver Location	FHWA/Caltrans Approach/Exceed Criterion	L.A. County Criterion*	Existing Noise Level
R1	66	65	64
R2	66	65	64
R3	66	65	62
R4	71	N/A	59
R5	66	65	59
R6	66	65	60
R7	71	N/A	71
R8	66	65	70
R9	66	65	64
R10	66	65	65

\*Assuming a day/night traffic volume split of 85 percent/15 percent and a peak-hour volume of 10 percent ADT, noise level in terms of day-night sound level ( $L_{dn}$ ) would be about the same as peak-hour  $L_{eq}$ .

Source: CH2M HILL

From the above data, it is apparent that existing peak-hour noise levels at the exterior of residential locations west of the commercial property south of Hasley Canyon Road and the parking area of this commercial site exceed the FHWA and Caltrans noise abatement criteria (NAC). Because of the presence of property-line walls, backyards of homes north of Hasley Canyon Road near Sedona Way are exposed to existing peak-hour noise levels just below the NAC. Similarly, homes just southwest of the intersection of Hasley Canyon Road and The Old Road experience lower traffic noise levels because of acoustical shielding provided by existing roadway embankments and property-line walls.

### 3.14 Transportation and Traffic Circulation

In addition to being heavily used as a commuter route, I-5 is a major north-south interstate transportation route that is used for international, interstate, inter-regional, and intraregional travel and movement of goods. Within the State of California, I-5 extends from the international boundary at Tijuana, Mexico, to the Oregon state line. In Los Angeles County, I-5 spans a distance of 142.6 kilometers (88.6 miles) from the Orange County line to the Kern County line and is known as either the Santa Ana or the Golden State Freeway between those limits. I-5 is part of the Interstate System of Highways and is included in the NHS. Because I-5 is a major local and regional truck route, it is on the SHELL Route System.

Hasley Canyon Road is classified as a major road on the County Highway Plan and ends immediately east of the I-5 northbound ramps. West of I-5, Hasley Canyon Road crosses The Old Road and extends as a four-lane divided road, providing access to adjacent residential and commercial developments to the north and south. Further west, Hasley Canyon Road splits: the northerly segment is a two-lane arterial serving the area northwest

of I-5, and the southerly segment, called Commerce Center Drive, extends southward as a four-lane road. A southerly extension of Commerce Center Drive across Castaic Creek to SR-126 is currently under construction.

The Old Road, located west of I-5, acts as a frontage road. The Old Road was widened to four lanes between Live Oak Road and Sedona Way by the Valencia Company in cooperation with the County of Los Angeles in December of 1998. The Hasley Canyon Road intersection with The Old Road was signalized as part of the construction. Hasley Canyon Road was also widened to four lanes between the I-5 southbound ramps and The Old Road.

Sedona Way, located 200 meters north of the intersection of Hasley Canyon Road and The Old Road intersection, provides access to a 280 single-family residential development.

The existing ADT, from 1997 traffic counts, for the I-5 corridor and adjacent arterials are shown in Figure 2 in Section 1.2.2. The ADT on I-5 is projected to increase from 65,000 vehicles north of the interchange to 73,000 vehicles south of the interchange. Approximately 5,000 vehicles daily utilize Hasley Canyon Road and The Old Road each. The existing peak-hour traffic volumes for the I-5/Hasley Canyon Road interchange are shown in Figure 3 in Section 1.2.2. The peak-hour volumes on the northbound ramps are 415 vehicles in the A.M. and 608 vehicles in the P.M. In the A.M. peak-hour, 705 vehicles use the southbound on-ramp. The peak-hour volumes on the northbound on-ramp and southbound off-ramp are light, varying between 21 and 58 vehicles, in the A.M. and P.M., respectively.

An ICU analysis was performed, based on 1997 traffic volumes, to determine the LOS of the existing interchange. The results of the analysis are summarized in Table 3-4.

**TABLE 3-4**  
Existing Levels of Service

Location	A.M.		P.M.	
	v/c	LOS	v/c	LOS
I-5 NB Ramps and Hasley Canyon Road	0.37	A	0.52	A
I-5 SB Ramps and Hasley Canyon Road	0.55	A	0.47	A
Hasley Canyon Road and The Old Road	0.48	A	0.43	A

The above data show that, within the study area, the existing intersections operate at LOS A during both the A.M. and P.M. peak hours.

# Section 4

## Environmental Evaluation

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Pursuant to the Caltrans *Environmental Handbook, Volume 1*, a summary of the findings of this report concerning the environmental effects of the project is presented in the form of an Environmental Significance Checklist. A discussion of the responses to the checklist questions that contain an asterisk is provided in Section 5 of this document. Responses to the other checklist questions are included in the PEER. Based on the PEER, focused technical studies were prepared to examine the environmental consequences of the proposed project with respect to air quality, biology, cultural resources, noise, and hazardous materials. Those technical studies are incorporated into the report by reference and are included in the References (Section 8) of this IS/EA. The discussion of the environmental evaluation presented in Section 5 is primarily a summary of the results of these technical studies.

### ENVIRONMENTAL SIGNIFICANCE CHECKLIST

This checklist was used to identify physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, the background studies performed in connection with this project clearly indicate that the project would not affect a particular item. A “No” answer in the first column documents this determination. A discussion is also provided for questions with asterisks because further research was required.

<b>PHYSICAL</b> - Will the proposal either directly or indirectly:		<b>Yes or No?</b>	<b>If yes, is it significant after mitigation? Yes or No?</b>
1.	Appreciably change the topography or ground surface relief features?	No	
2.	Destroy, cover, or modify any unique geologic, paleontologic, or physical features?	No	
3.	Result in the loss or availability of a known mineral resource or locally important mineral resource recovery site, that would be of value to the region and the residents of the state.	No	
4.	Result in unstable earth surfaces or increase the exposure of people or property to geologic or seismic hazards?	No	
5.	Result in or be affected by soil erosion or siltation (whether by water or wind)?	Yes*	No
6.	Result in the increased use of fuel or energy in large amounts or in a wasteful manner?	No	
7.	Result in an increase in the rate of use of any natural resource?	No	
8.	Result in the substantial depletion of any nonrenewable resource?	No	
9.	Violate any published federal, state, or local standards pertaining to hazardous waste, solid waste, or litter control?	No	
10.	Modify the channel of a river or stream, or the bed of the ocean, or any inlet or lake?	Yes*	No
11.	Encroach upon a floodplain or result in or be affected by floodwaters or tidal waves?	Yes*	No
12.	Adversely affect the quantity or quality of surface water, groundwater, or public water supply?	Yes*	No
13.	Result in the use of water in large amounts or in a wasteful manner?	No	
14.	Affect wetlands or riparian vegetation?	Yes*	No
15.	Violate or be inconsistent with federal, state, or local water quality standards?	No*	
16.	Result in changes in air movement, moisture, or temperature, or any climatic conditions?	No	

17.	Result in an increase in air pollutant emissions, adverse effects on or deterioration of ambient air quality?	Yes*	No
18.	Result in the creation of objectionable odors?	No	
19.	Violate or be inconsistent with federal, state, or local air standards or control plans?	No*	
20.	Result in an increase in noise levels or vibration for adjoining areas?	Yes*	No
21.	Result in any federal, state, or local noise criteria being equaled or exceeded?	Yes*	No
22.	Produce new light, glare, or shadows?	No*	

<b>BIOLOGICAL</b> - Will the proposal result in (either directly or indirectly):		<b>Yes or No?</b>	<b>If yes, is it significant after mitigation? Yes or No?</b>
23.	Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, microflora, and aquatic plants)?	Yes*	No
24.	Reduction of the numbers of or encroachment upon the critical habitat of any unique threatened or endangered species of plants?	Yes*	No
25.	Introduction of new species of plants into an area, or result in a barrier to the normal replenishment of existing species?	No*	
26.	Reduction in acreage of any agricultural crop or commercial timber stand, or affect prime, unique, or other farmland of state or local importance?	Yes*	No
27.	Removal or deterioration of existing fish or wildlife habitat?	Yes*	No
28.	Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, or microfauna)?	Yes*	No
29.	Reduction of the numbers of or encroachment upon the critical habitat of any unique threatened or endangered species of animals?	Yes*	No
30.	Conflict with any applicable habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat plan?	No*	
31.	Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	No*	

<b>SOCIAL AND ECONOMIC - Will the proposal either directly or indirectly:</b>		<b>Yes or No?</b>	<b>If yes, is it significant after mitigation? Yes or No?</b>
32.	Cause disruption of orderly planned development?	No	
33.	Be inconsistent with any elements of adopted community plans, policies, or goals?	No	
34.	Be inconsistent with a Coastal Zone Management Plan?	No	
35.	Affect the location, distribution, density, or growth rate of the human population of an area?	No	
33.	Affect life-styles, or neighborhood character or stability?	No	
37.	Affect minority, elderly, handicapped, transit-dependent, or other specific interest groups?	No	
38.	Divide or disrupt an established community?	No	
39.	Affect existing housing, require the acquisition of residential improvements or the displacement of people, or create a demand for additional housing?	No	
40.	Affect employment, industry, or commerce, or require the displacement of businesses or farms?	Yes*	No
41.	Affect property values or the local tax base?	No	
42.	Affect any community facilities (including medical, educational, scientific, recreational, or religious institutions, ceremonial sites, or sacred shrines)?	No*	
43.	Affect public utilities, or police, fire, emergency, or other public services?	Yes*	No
44.	Have substantial impact on existing transportation systems or alter present patterns of circulation or movement of people and/or goods?	Yes*	No
45.	Generate additional traffic?	No*	
46.	Affect or be affected by existing parking facilities or result in demand for new parking?	No	
47.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	No	
48.	Involve a substantial risk of an explosion or the release of hazardous substances in the event of an accident or otherwise adversely affect overall public safety?	No*	
49.	Result in alterations to waterborne, rail, or air traffic?	No	
50.	Support large commercial or residential development?	Yes*	No

51.	Affect a substantial archaeological or historic site, structure, object, or building?	No*	
52.	Affect wild or scenic rivers, or natural landmarks?	No	
53.	Affect any scenic resources or result in the obstruction of any scenic vista or view open to the public, or creation of an aesthetically offensive site open to public view?	No*	
54.	Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours and temporary access, etc.)?	Yes*	No
55.	Result in the use of any publicly-owned land from a park, recreation area, or wildlife and waterfowl refuge?	No	
<b>MANDATORY FINDINGS OF SIGNIFICANCE:</b>		<b>Yes or No?</b>	<b>If yes, is it significant after mitigation? Yes or No?</b>
56.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	Yes*	No
57.	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	No	
58.	Does the project have environmental effects which are individually limited, but cumulatively considerable? Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. It includes the effects of other projects which interact with this project and, together, are considerable.	No	
59.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	No	

# Section 5

## Discussion of Environmental Evaluation

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To address potential environmental impacts associated with the project, the Environmental Significance Checklist (Checklist) was used. In addition to preparation of the environmental checklist, the following technical studies were conducted as part of this IS/EA:

- Initial Site Assessment, CH2M HILL, February 1999
- Air Quality Study, CH2M HILL, April 2000
- Floodplain Evaluation, CH2M HILL, April 2000
- Location Hydraulic Study, CH2M HILL, June 2000
- Historic Property Survey Report, CH2M HILL, April 2000
- Noise Analysis Report, CH2M HILL, May 2000
- Natural Environment Study, BonTerra Consulting, June 2000
- Traffic Impact & Circulation Study, CH2M HILL, June 2000

The following discussion addresses those areas of potential environmental impact associated with the project that have been identified by the checklist or technical studies, as well as a discussion of their potential significance. It also provides explanations of the responses in the Checklist that are noted with an asterisk.

For most environmental resource areas, any impacts resulting from the two Build Alternatives for the proposed project are the same. Unless otherwise noted, the analysis of impacts discusses both Build Alternatives together.

### 5.1 Siltation (Question 5)

#### 5.1.1 Project Impacts

Construction of the build alternatives for proposed project would require grading of the immediate project area, which could result in erosion of disturbed earth by wind and/or water adjacent to and in Castaic Creek. This erosion could result in liquids and fine-grain particulate solids entering Castaic Creek, which would be expected to wash downstream to potentially contaminate aquatic and/or wetland habitats within Santa Clara River. Indirect impacts to these riparian habitats and resident species downstream would be considered substantial. However, appropriate Best Management Practices (BMPs) and erosion control measures would be implemented during construction; therefore, siltation into Castaic Creek and, as a result, Santa Clara River, would be minimal and not considered substantial.

Additionally, the project applicant shall apply for coverage under the State Water Resources Control Board's General Permit for Storm Water Discharge Associated with Construction Activity. The applicant shall comply with all of the provisions of the permit, including the development of a Storm Water Pollution Prevention Plan, which includes provisions for the implementation of BMPs and erosion control measures.

No impacts would result from the No-Build Alternative.

### 5.1.2 Mitigation

No mitigation is necessary because there are no substantial impacts resulting from siltation.

## 5.2 Water Resources (Checklist Questions 10, 12, and 15)

### 5.2.1 Project Impacts

This section assesses impacts that the Build Alternatives for the proposed project would have on nearby water resources, including impacts from stormwater runoff and erosion during construction. No impacts would result from the No-Build Alternative.

#### 5.2.1.1 Stormwater Runoff

There would be a slight increase in the amount of stormwater runoff on the project site due to the increase in the amount of impervious surfaces due to both Build Alternatives. As a result, there would be a small increase in runoff to Castaic Creek, which could potentially degrade surface water quality. However, adherence BMPs would minimize adverse environmental effects to Castaic Creek, would prevent the proposed project from substantially affecting water quality, and would ensure project consistency with state and federal water quality standards. The BMPs would be designed to channel runoff away from the river and absorb and infiltrate flows, as well as detain direct runoff.

The total monthly runoff to the river was estimated to be the net new impervious surface area of the interchange and Hasley Canyon Road (3.06 hectares [7.57 acres] for the Hook Ramp Interchange Alternative and 3.74 hectares [9.25 acres] for the Hybrid Interchange Alternative) multiplied by the monthly precipitation totals at the National Weather Service (NWS) station in Newhall (NWS, 1999). Those monthly totals were compared to the average monthly total hydraulic load of the creek. For all months except November, the average precipitation was less than 1 percent of the flow in the creek. In November, project-associated stormwater runoff may average up to 1 percent of the flow in the creek. In reality, stormwater BMPs designed to absorb and infiltrate stormwater runoff would mitigate for almost all stormwater runoff from the site. No adverse impacts to Castaic Creek or Santa Clara River, which is located downstream of the proposed project, are expected from this small amount of project-associated runoff.

These BMPs will be described in detail as part of the Stormwater Pollution Prevention Plan (SWPPP) filed as part of the stormwater National Pollutant Discharge Elimination System (NPDES) permitting for the project. Standard operational BMPs (e.g., SWPPP Handbook [Caltrans, 1992]) that would effectively control erosion and water quality impacts include, but are not limited to:

- Earth, gravel, or grass-lined water-quality filters to infiltrate and absorb stormwater runoff from the roadway
- Stormwater detention basins
- A storm drain and basin maintenance program

### 5.2.1.2 Erosion During Construction

Standard construction practices and adherence to the project SWPPP filed as part of the Construction NPDES permit would protect Castaic Creek and prevent substantial impacts related to erosion during construction. Construction management BMPs are designed to minimize erosion and to stop downstream siltation during construction activities. Standard BMPs (e.g., Caltrans, 1992) would include, but are not limited to:

- Establishment of equipment staging areas and isolation of hazardous materials from drainage to the streambed
- Control of construction vehicles and containment of any leakage; a ban on equipment maintenance within the streambed
- Control of all construction debris within the river channel
- Sediment traps and/or straw bale filters and silt fences
- Temporary and permanent revegetation of exposed soil with native plant material

Implementation of BMPs would minimize erosion during construction and would prevent the proposed project from substantially affecting water quality.

### 5.2.2 Mitigation

Since there are no adverse impacts to water quality resulting from the Build Alternatives for the proposed project, mitigation measures are not necessary. All potential impacts to water quality and flooding will be minimized or prevented during construction by the implementation of and adherence to BMPs.

The project will require both Construction and Operations Stormwater NPDES permits, as well as consultation with state and federal agencies concerning protection measures for the listed aquatic species in the project vicinity. These permits will most likely limit work within the floodplain of Castaic Creek to those seasons when the construction area will be dry (i.e., late spring, summer, and fall).

## 5.3 Floodplain (Checklist Question 11)

### 5.3.1 Project Impacts

As discussed in the Floodplain Evaluation Report (CH2M HILL, 2000) and shown in Figure 14, the northbound off-ramp for both Build Alternatives would be realigned to the east, within the border of the Castaic Creek floodplain. Encroachment for both alternatives would be less than 0.10 hectare (0.25 acre). Such encroachment would be considered *de minimis*, and would not be a significant project impact. As a result of this permanent encroachment, a Flood Insurance Rate Map Revision would need to be submitted to the FEMA. Submittal of this revision would enable the project to be consistent with the Los Angeles County Watershed Management Programs.

Implementation of the proposed project could also result in adverse impacts to Natural and Beneficial Floodplain Values. These impacts would affect fish, wildlife, plants, open space, natural beauty, water quality maintenance, and groundwater recharge. These impacts would be avoided to the maximum practicable extent possible with BMPs during

construction. The proposed project would not result in impacts to scientific study, outdoor recreation, agriculture, aquaculture, forestry, or the natural moderation of floods. As a result, impacts would not be considered significant.

The proposed project would not support incompatible floodplain development and would be consistent with existing watershed and floodplain management programs. No adverse impacts to buildings, residences, or croplands would result from the implementation of the proposed action. No impacts would result from the No-Build Alternative.

### **5.3.2 Mitigation**

Because there are no significant environmental impacts to the natural and beneficial floodplain values for Castaic Creek resulting from the Build Alternatives to the proposed project, no mitigation measures are necessary other than the implementation of normal BMPs and permit requirements. However, RSP will be required for both alternatives where the project encroaches upon the base floodplain of Castaic Creek. A preliminary analysis shows that rock slope protection (RSP) will be needed at the upstream side of the bridge embankment as well as along the northbound I-5 ramps for both alternatives. During the design phase of this project, a detailed hydraulic analysis will be required to determine the exact locations and design of the RSP.

## **5.4 Wetlands (Checklist Question 14)**

### **5.4.1 Project Impacts**

Jurisdictional areas, defined by the ACOE and California Department of Fish and Game (CDFG), within the Santa Clara River area were delineated in December 1999 for this project. The delineation determined that 0.38 hectare (0.95 acre) of “waters of the U.S.” is located in the construction area for both Build Alternatives of the proposed project. These impacts would be considered significant due to the special status of wetlands with state resource agencies.

No impacts would result from the No-Build Alternative.

### **5.4.2 Mitigation**

Mitigation for impacts to wetland areas for both Build Alternatives will consist of restoring riparian habitat in the required ratio identified in the project applicant’s ACOE and CDFG permit/agreement for the proposed project or implementation of an Arundo Removal Program. Impacts are considered less than significant after implementation of one of the following options.

No mitigation is required for the No-Build Alternative because there would be no impacts resulting from that alternative.

#### **5.4.2.1 Riparian Restoration**

Prior to the final submittal of an application for an ACOE permit or CDFG agreement, the project applicant shall develop a riparian restoration plan for submittal to the ACOE and CDFG for impacts to 0.38 hectare (0.95 acre) of jurisdictional waters. The objective of the

mitigation is to ensure no net loss of habitat values from the proposed project. Prior to implementation, a detailed restoration program shall be developed and shall contain a description of the following items:

1. Responsibilities and qualifications of the personnel to implement and supervise the plan
2. Site selection
3. Site preparation and planting implementation
4. Schedule
5. Maintenance plan/guidelines
6. Monitoring plan
7. Long-term preservation

#### **5.4.2.2 Arundo Removal Program**

Prior to the final submittal of an application for an ACOE permit or CDFG agreement, the project applicant shall develop an Arundo Removal Plan for submittal to the ACOE and CDFG for impacts to 0.38 hectare (0.95 acre) of jurisdictional waters. The objective of the mitigation is to ensure no net loss of habitat values from the proposed project. This mitigation shall contain a description of the following items:

1. Removal of exotic plant species from the study area and vicinity in locations where:  
(1) there is an infestation of exotics such as Arundo such that the natural habitat functions and values are substantially degraded and at risk, and where the cover of exotics is equal to or exceeds 25 percent of the ground; or (2) exotic removal would be strategic in a watershed approach to weed management, as determined by ACOE and CDFG. The weed removal sites shall be selected in a logical manner to ensure that the eradication of weeds from specific sites will contribute to the overall control of exotics in Castaic Creek and Santa Clara River watercourses. Removal areas shall be kept free of exotic plant species for 5 years after initial treatment.
2. The removal program shall utilize methods and procedures approved by the ACOE and CDFG to remove exotics. These methods and procedures include, but are not limited to, mechanical equipment in specific areas, hand-cutting, and the application of herbicides to stumps. A weed eradication plan shall be submitted to the ACOE and CDFG for approval. The plan shall describe the proposed methods and the conditions of the site to be treated. A monitoring program shall be implemented to document the effectiveness of the removal and the natural establishment of native vegetation in the weeded area.
3. The Arundo Removal Program may be operated through the Natural River Management Plan (NRMP) Arundo Removal Program established by the Valencia Company. The Valencia Company will be responsible for monitoring the mitigation program and reporting to the resource agencies to keep them informed of the status of the mitigation program. Reports to resource agencies will include a Mitigation Accounting Form filed annually and an Annual Mitigation Status Report.

## 5.5 Air Quality (Checklist Questions 17 and 19)

### 5.5.1 Project Impacts

Project impacts, discussed below, would be the same for both of the Build Alternatives for the proposed project. No impacts would result from the No-Build Alternative.

#### 5.5.1.1 Construction Impacts

As discussed in the Air Quality Report (CH2M HILL, 2000), emissions from the proposed project would impact air quality during construction. Equipment would be used during site preparation and project construction for activities such as clearing, grading, excavating, loading/unloading of trucks, and travel on unpaved roads. These activities would generate emissions of fugitive dust and impact local air quality.

In addition to the fugitive dust, the exhaust emissions from the operation of heavy equipment will also contain criteria pollutants such as particulate matter less than 10 microns (PM<sub>10</sub>), NO<sub>x</sub> and ROC. NO<sub>x</sub> and ROC are important because they react to form ozone in the presence of sunlight. The vehicles of commuting workers and other equipment powered by internal combustion engines would also generate emissions of criteria pollutants and could impact air quality at or near the construction site. Impacts due to equipment emissions and fugitive dust would be considered substantial without the implementation of BMPs, discussed below.

#### 5.5.1.2 Operational Impacts

A transportation project can affect regional air quality if emissions of ozone precursors (NO<sub>x</sub> and ROC) from traffic are greater with the project than without the project. In order to be found in conformance with the Federal Clean Air Act Amendments (CAAA's) of 1990, a project must come from approved transportation plans and programs such as the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Plan (RTIP). The CAAA's of 1990 require that transportation plans, programs, and projects that are funded by or approved under Title 23 U.S.C. or Federal Transit Act conform to state or federal air quality plans. The proposed project is identified in the 2000/01 – 2005/06 RTIP which was approved by the U.S. DOT (FHWA/FTA) on October 6, 2000. Interchange improvements/reconfigurations projects of this type are identified in the EPA Conformity Rule category of exempt projects that are exempt from the requirement that a regional emissions analysis be made.

The pollutant of primary concern when assessing localized impacts of transportation projects is carbon monoxide (CO). High CO concentrations tend to accumulate near areas of heavy traffic congestion where average vehicle speeds are low. Localized impacts are assessed by estimating maximum ambient CO concentrations near the roadways affected by the project. The concentrations are compared to the national and California ambient air quality standards for CO. The impact of a project is considered to be adverse if the project creates a new CO violation or exacerbates an existing violation.

In general, the proposed project would improve traffic flow and increase average vehicle speeds through the project location relative to the no-project condition. Therefore, the project is generally expected to have a beneficial impact on localized air quality. However,

both build alternatives will potentially move congested traffic closer to a receptor site (i.e., residences near Hasley Canyon Road/Sedona Way intersection) by connecting the southbound I-5 hook on- and off-ramps to the existing T-intersection at The Old Road and Sedona Way. For this reason, a CO screening analysis was performed to determine if this proposed intersection would cause localized violations of the standards for CO at the affected receptors. A separate CO screening analysis was also done at the intersection of The Old Road and Hasley Canyon Road to determine if the impacts were less than significant for this component of the project. The Hook Ramp Interchange Alternative, which proposes a signalized intersection at the intersection of The Old Road and Hasley Canyon Road, was chosen as a conservative estimate for the two alternatives because the impacts from the roundabout interchange (i.e., Hybrid Interchange Alternative) are expected to be less than the signalized intersection (i.e., Hook Ramp Alternative). Localized CO impacts were evaluated using the Transportation Project-Level Carbon Monoxide Protocol written by the Institute of Traffic Studies at the University of California at Davis, 1997. The Southern California Association of Governments (SCAG) endorses the use of the Protocol to assess project-level impacts.

The analysis showed that the predicted 2020 maximum 1-hour CO concentration near the redesigned intersection at The Old Road and Sedona Way is 12.5 parts per million (ppm), which is well below the national standard of 35 ppm and the state standard of 20 ppm (Table 5-1). The maximum 8-hour concentration is 7.0 ppm, which is below the national and state standard of 9 ppm. The concentrations at the intersection of The Old Road and Sedona Way would be similar for both build alternatives assuming traffic volumes are similar for both alternatives. Therefore, construction of either build alternative would not contribute to a violation of the CO standards at these locations.

**TABLE 5-1**  
Maximum CO Concentrations with the Proposed Project (2020)

<b>Intersection</b>	<b>Maximum 1-Hour CO Concentration (ppm)</b>	<b>Maximum 8-Hour CO Concentration (ppm)</b>
Sedona Way/The Old Road Intersection – Hook Ramp and Hybrid Alternative	12.5	7.0
The Old Road/Hasley Canyon Intersection – Hook Ramp Alternative	11.2	6.1

Source: CH2M HILL, 2000.

Notes:

1. Concentrations include a 1-hour background concentration of 6.9 ppm and an 8-hour background concentration of 3.1 ppm.
2. The National Ambient Air Quality Standards for CO are 35 ppm (1-hour) and 9 ppm (8-hour).
3. The California Ambient Air Quality Standards for CO are 20 ppm (1-hour) and 9 ppm (8-hour).

As shown in Table 5-1, the CO concentration from the screening analysis for the Hook Ramp Interchange Alternative at the intersection of The Old Road and Hasley Canyon is less than the state and national standards. Conceptually, the roundabout interchange (Hybrid Interchange Alternative) would lead to lower CO concentrations compared to the signalized intersection (Hook Ramp Interchange Alternative) due to the continuous flow of traffic.

This implies that the impacts from the completion of either build alternative would be less than significant at this intersection. Because the overall localized impacts associated with the completion of either the Hook Ramp Interchange Alternative or the Hybrid Interchange Alternative would not lead to any new violations or cause an increase in any existing conditions, the project-level conformity requirements would be satisfied for both of the proposed build alternatives.

Projects are subject to conformity requirements for PM<sub>10</sub> if they are located in a PM<sub>10</sub> non-attainment or maintenance area (Federal standards). At the regional scale, the proposed project is identified in the 2000/01 – 2005/06 RTIP. The RTIP air quality analysis must show that the transportation system will not increase PM<sub>10</sub> emissions overall. Therefore, inclusion of this project in a conforming RTIP would show that the project would not cause a significant regional PM<sub>10</sub> impact.

At the local scale, a qualitative PM<sub>10</sub> hotspot analysis is required for this project since the proposed site is located in a Federal non-attainment zone for PM<sub>10</sub>. As shown in Table 3-1, no violations of the PM<sub>10</sub> NAAQS have been recorded at the Santa Clarita Station, which is the nearest representative monitoring station for this project, for years 1994 – 1996. For example, ARB's 1997 data show a maximum 24-hour concentration of 91 µg/m<sup>3</sup>, approximately 60 percent of the federal standard. Because the concentrations are well below the standard and no unusual circumstances are expected, (such as, heavy wintertime sanding conditions or a high concentration of diesel trucks), this project would be unlikely to contribute to a violation of the PM<sub>10</sub> NAAQS.

#### 5.5.1.3 Cumulative Air Quality Impacts

The proposed project is planned to accommodate the traffic demand associated with future development of the project area. The cumulative regional air quality impacts associated with the future development, including traffic generation, are addressed in the following environmental documents:

- Valencia Commerce Center Final Environmental Impact Statement
- Newhall Ranch Road Preliminary Environmental Evaluation Report
- Magic Mountain Project Study Report

The proposed improvements near the intersection of The Old Road and Hasley Canyon Road would not generate any additional traffic. Therefore, the contribution of the project to cumulative regional air quality impacts would be less than significant.

The screening analysis for localized CO impacts included traffic volumes projected by Austin-Foust Associates for the year 2020. These traffic projections were derived from the Santa Clarita Valley Consolidated Traffic Model using future land use and travel patterns that account for the cumulative project growth of the project area. Because the localized impacts of the proposed project would be less than the ambient air quality standards, it therefore follows that localized cumulative impacts would also be less than significant.

## 5.5.2 Mitigation

Mitigation would be the same for both of the Build Alternatives to the proposed project. No mitigation would be required for the No-Build Alternative, which would have no project impacts.

### 5.5.2.1 Construction Mitigation

Impacts due to the generation of fugitive dust and presence of other criteria pollutants will be less than substantial. However, the following measures are generally accepted construction management practices used to mitigate the air quality impacts of a project.

#### 1. Fugitive Dust Control

- a. Apply Environmental Protection Agency (EPA)-approved nontoxic chemical soil stabilizers to all inactive construction areas (i.e., previously graded areas inactive for 5 days or more).
- b. Water active grading and parking areas at least twice daily during dry season (May 1 through November 1).
- c. Enclose, cover, water twice daily, or apply approved soil binders to exposed stockpiles.
- d. Suspend all excavation and grading operations when instantaneous wind speeds reach 25 miles per hour.
- e. Cover or maintain at least 2 feet of freeboard on all trucks hauling dirt, sand, silt, or other loose materials.
- f. Sweep paved streets at the end of the day if visible soil material is carried over to adjacent paved roads.
- g. Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off mud from trucks leaving the site.

#### 2. Vehicular Emissions Controls

- a. Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturer's specifications and per SCAQMD rules.
- b. Use electricity from existing nearby power lines rather than from temporary diesel- or gasoline-powered generators to the extent feasible.
- c. Provide temporary traffic control during all phases of construction activities that affect circulation on public roads to maintain traffic flow.
- d. Schedule construction activities that affect traffic flow on the arterial system to off-peak hours.

### 5.5.2.2 Operational Mitigation

Because the proposed project would not contribute to a violation of the CO standards and would have inconsequential, localized project effects, and because the project-level conformity requirements are satisfied, no mitigation for operational effects is necessary.

### 5.5.2.2 Cumulative Mitigation

The contribution of the project to cumulative regional air quality impacts would be inconsequential. As a result, no mitigation measures for cumulative air quality impacts are necessary.

## 5.6 Noise (Checklist Questions 20 and 21)

### 5.6.1 Project Impacts

Project impacts, discussed below, would be the same for both of the Build Alternatives for the proposed project. No impacts would result from the No-Build Alternative. For additional, more detailed discussion, refer to the Air Quality Analysis report (CH2M HILL, 2000).

#### 5.6.1.1 Traffic Noise Impacts

As discussed in the Noise Analysis Report (CH2M HILL, 2000), a computer program (SOUND32) was used to calculate future (2020) Build and No-Build traffic noise levels from I-5 in terms of peak-hour Leq. The same 10 sites, representing Category B and C receiver locations, were analyzed for the No-Build and both Build Alternatives. Table 5-2 shows that future 2020 traffic noise levels for the Build and No-Build conditions approach and exceed the 67-dBA criterion within exterior activity areas (backyards) of single-family homes north of Hasley Canyon Road. Future peak-hour traffic noise levels within the commercial property (R7) southwest of the interchange, as well as residences R8 to R10 are expected to exceed the Category C criterion of 72 dBA, Leq.

**TABLE 5-2**  
Projected Future (2020) Peak-Hour Noise Levels (in dBA)

Receiver Location	Existing	2020 No-Build	2020 Hook Ramp Alternative	2020 Hybrid Alternative	FHWA/Caltrans Approach Criterion	L.A. County Criterion*
R1	64	68	68	68	66	65
R2	64	68	68	68	66	65
R3	62	67	66	66	66	65
R4	59	63	65	63	71	N/A
R5	59	63	61	62	66	65
R6	60	64	62	62	66	65
R7	71	74	74	74	71	N/A
R8	70	73	74	74	66	65
R9	64	67	68	68	66	65
R10	65	68	68	68	66	65

\* The Los Angeles County criterion is in terms of Ldn. Assuming a day/night traffic volume split of 85 percent/15 percent and a peak-hour volume of 10 percent ADT, noise level in terms of Ldn would be about the same as peak-hour Leq.

Source: CH2M HILL

### 5.6.1.2 Construction Noise Impacts

During the construction phase, noise from construction activities would add to the noise environment in the immediate project area. Activities involved in construction would generate noise levels, as indicated in Table 5-3, ranging from 88 to 92 dBA at a distance of 15 meters (50 feet). Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Construction noise impacts could result in annoyance or sleep disruption if nighttime operations occur or if unusually noisy equipment is used. Because of this, construction activities rarely occur during nighttime periods.

**TABLE 5-3**  
Construction Equipment Noise

Construction Phase	Loudest Equipment	Maximum Sound Level at 15 Meters (50 Feet) (dBA-Leq)
Clearing and Grubbing	Bulldozer, backhoe	89 dBA
Earthwork	Scraper, bulldozer	91 dBA
Foundation	Backhoe, loader	88 dBA
Superstructure	Crane, loader	89 dBA
Base Preparation	Truck, bulldozer	91 dBA
Paving	Paver, truck	92 dBA

Source: U.S. Department of Transportation, 1977.

Noise would also be generated during the construction phase by increased truck traffic on area roadways associated with transport of heavy materials and equipment. This noise

increase would be of short duration and would probably occur primarily during daytime hours.

## **5.6.2 Mitigation**

Mitigation would be the same for both of the Build Alternatives to the proposed project. No mitigation would be required for the No-Build Alternative, which would have no project impacts.

### **5.6.2.1 Traffic Noise Mitigation**

Potential traffic noise mitigation measures that may be considered for the proposed project include the following:

- Construction of a noise barrier
- Modifying the proposed alignment of the road
- Modifying speed limits
- Restricting truck traffic

Of the above mitigation measures, the noise barrier option is usually the most practical, reasonable, and effective choice. Table 5-4 shows the results of the noise barrier modeling analysis.

**TABLE 5-4**  
**Future Peak-Hour Noise Levels with Noise Barrier Calculations (in dBA)**

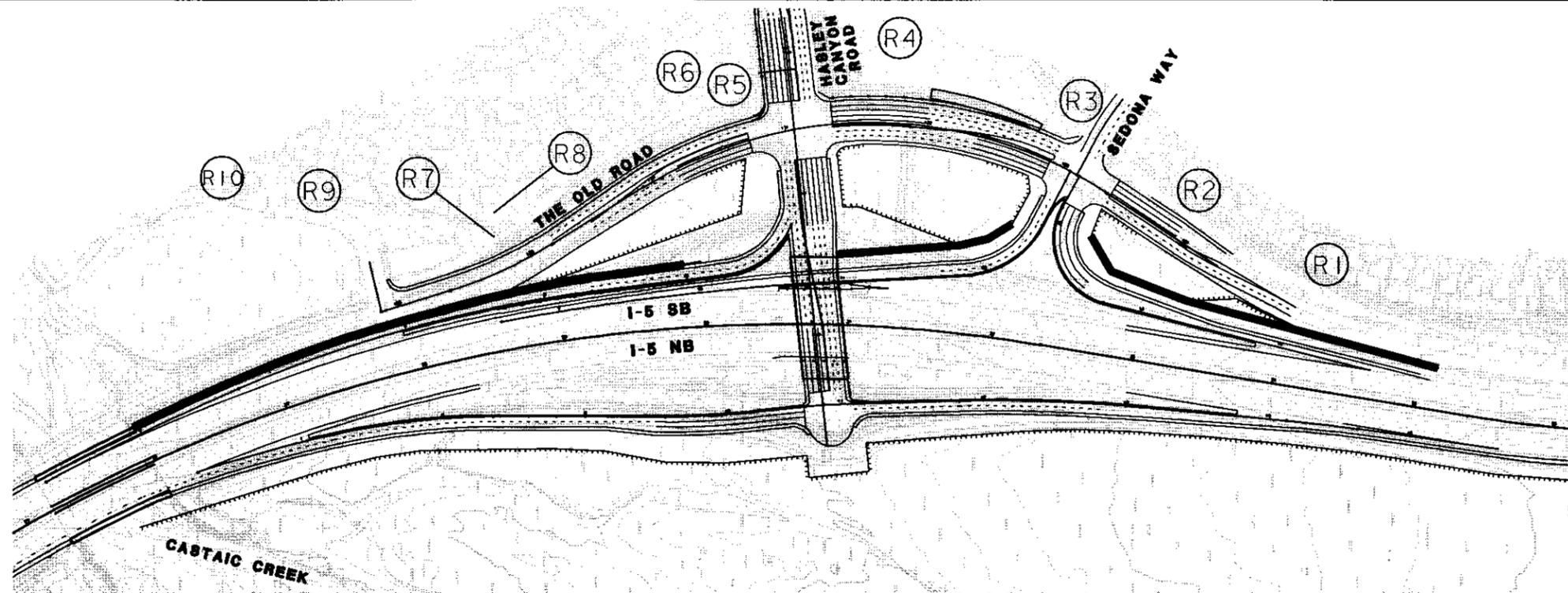
Receiver Location	No Mitigation	3-Meter (10-Foot) Barrier	3.7-Meter (12-Foot) Barrier	4.3-Meter (14-Foot) Barrier	4.9-Meter (16-Foot) Barrier
<b>Hook Ramp Interchange Alternative</b>					
R1	68	65	64	63	63*
R2	68	65	65	64	64*
R3	66	66	65	65	65
R4	65	65	65	64	64
R5	61	60	60	60	59
R6	62	60	59	59	59
R7	74	69	68	68	68
R8	74	67	66*	66	65
R9	68	65	63*	63	62
R10	68	64	64*	63	63
<b>Hybrid Interchange Alternative</b>					
R1	68	65	64	63	63*
R2	68	65	64	64	64*
R3	66	66	66	65	65
R4	63	63	62	62	62
R5	62	59	58	58	58
R6	62	59	58	58	58
R7	74	69	68	68	68
R8	74	67	67*	66	65
R9	68	64	63*	63	62
R10	68	64	64*	63	63

\* Breaks Line-of-Sight between 3.5-meter (11.5-foot) truck stack and 1.5-meter (5-foot)-high receiver in the first row of residences.

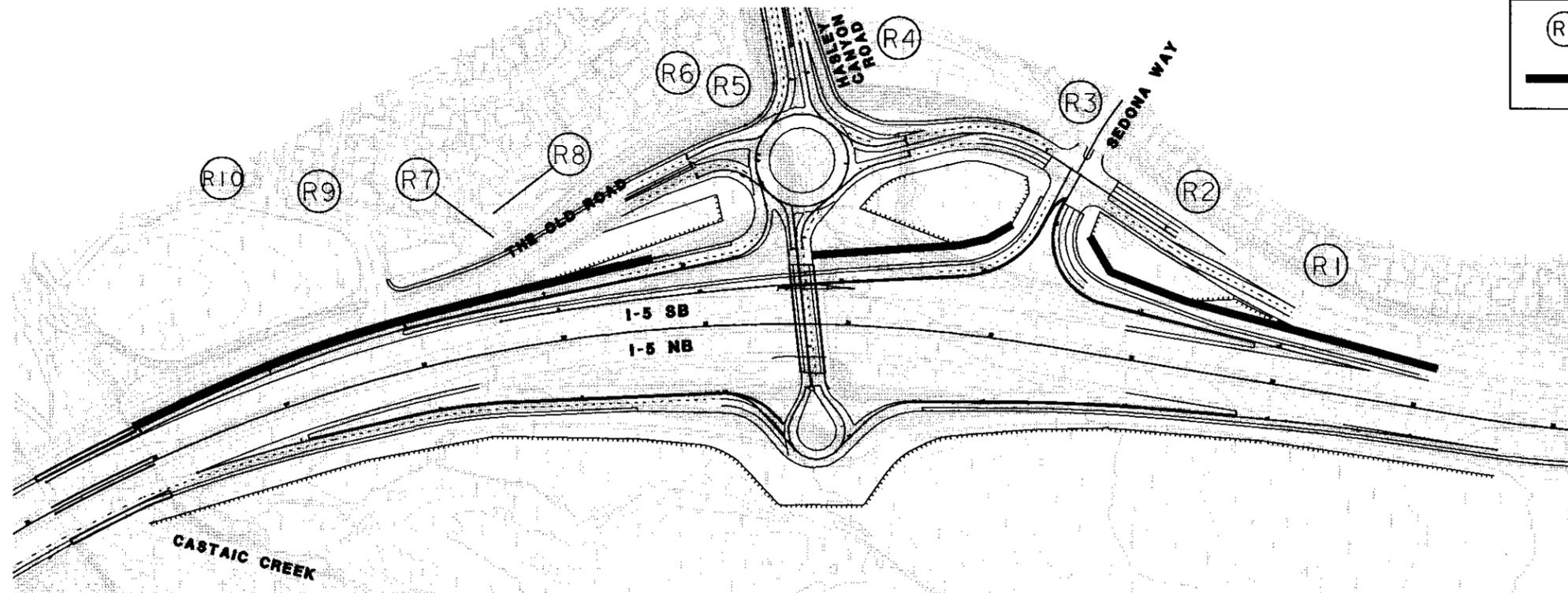
Shaded cells depict the barrier heights at which the Caltrans minimum requirement of 5 dBA noise reduction is achieved.

Source: CH2M HILL, 2000

According to Caltrans policy, a minimum of 5 dBA noise reduction must be achieved at the affected receivers in order for a proposed noise abatement measure to be considered “feasible.” For residential locations south of Hasley Canyon Road that exceed the FHWA and Caltrans noise abatement criteria (NAC), a noise barrier along the west edge of I-5 was evaluated. For noise modeling purposes, it was assumed that the barrier would be placed on top of the proposed retaining wall along the west side of I-5. The modeled barrier location is shown in Figure 18. Based on the noise barrier calculations, a feasible



**HOOK RAMPS ALTERNATIVE**



**HYBRID ALTERNATIVE**

**LEGEND**

(R1)	NOISE RECEIVER LOCATION
—	POTENTIAL NOISE BARRIER

**POTENTIAL NOISE BARRIER LOCATIONS**

**I-5/HASLEY CANYON ROAD INTERCHANGE**

noise barrier at this location should be 3.7 meters (14 feet) above the roadway. Such a barrier would provide noise reductions of 5 to 9 dBA within the residential and commercial areas west of I-5.

For the residential properties north of Sedona Way, a right-of-way noise barrier of practical height (4.9 meters [16 feet] above the freeway surface) would reduce traffic noise levels by 4 to 5 dBA, below the FHWA and Caltrans noise abatement criteria, within the backyards of the first row of homes along The Old Road. However, due to the elevated positions of the homes and the barrier opening at the intersection of the proposed I-5 hook ramps with The Old Road, the noise barrier would result in only about 1 dBA reduction in future traffic noise levels within backyards of those homes. Such differences in noise levels would not achieve a minimum attenuation under Caltrans noise abatement requirements (i.e., greater than or equal to 5 dBA).

Section 5.5 of Caltrans' *Traffic Noise Analysis Protocol* suggests that under certain topographical conditions it may be more practical and effective to construct noise barriers outside the right-of-way on private property. The policy also sets conditions on the construction of noise barriers outside the State's right-of-way, including the requirement that there must be support of all of the affected property owners.

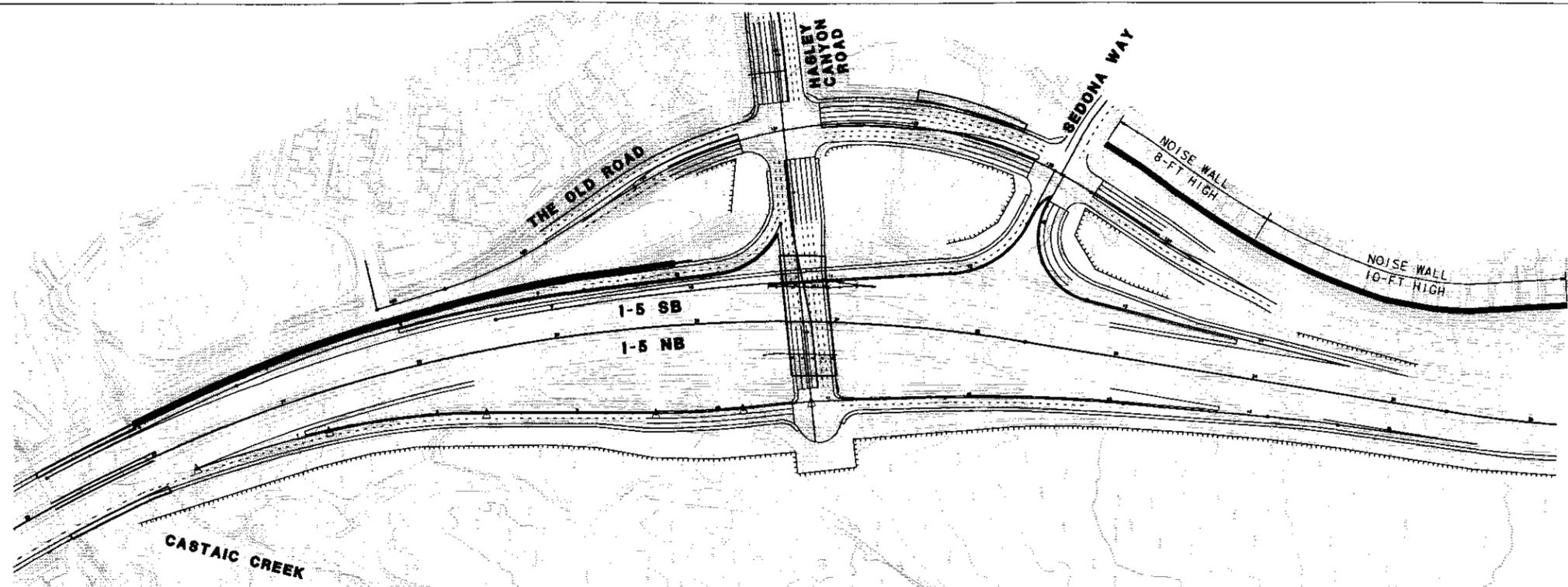
As discussed above, placement of a noise barrier at the I-5 right-of-way north of the interchange would not be reasonable noise abatement. Constructing a noise barrier at the County right-of-way would be even less effective in reducing traffic noise at the first row of homes north of Sedona Way. The only practical option to reduce traffic noise exposure within the exterior activity areas of these homes is to construct a barrier at the east edge of their backyards.

For the first eight homes north of Sedona Way, a 2.4-meter (8-foot)-high property-line noise barrier above the building pads would reduce future peak-hour traffic noise levels to about 62 dBA Leq. For the remaining homes to the north, a 3.0-meter (10-foot)-high noise barrier would reduce future traffic noise levels to about 62-64 dBA peak-hour Leq. Figure 19 shows the location of the recommended property line noise barrier.

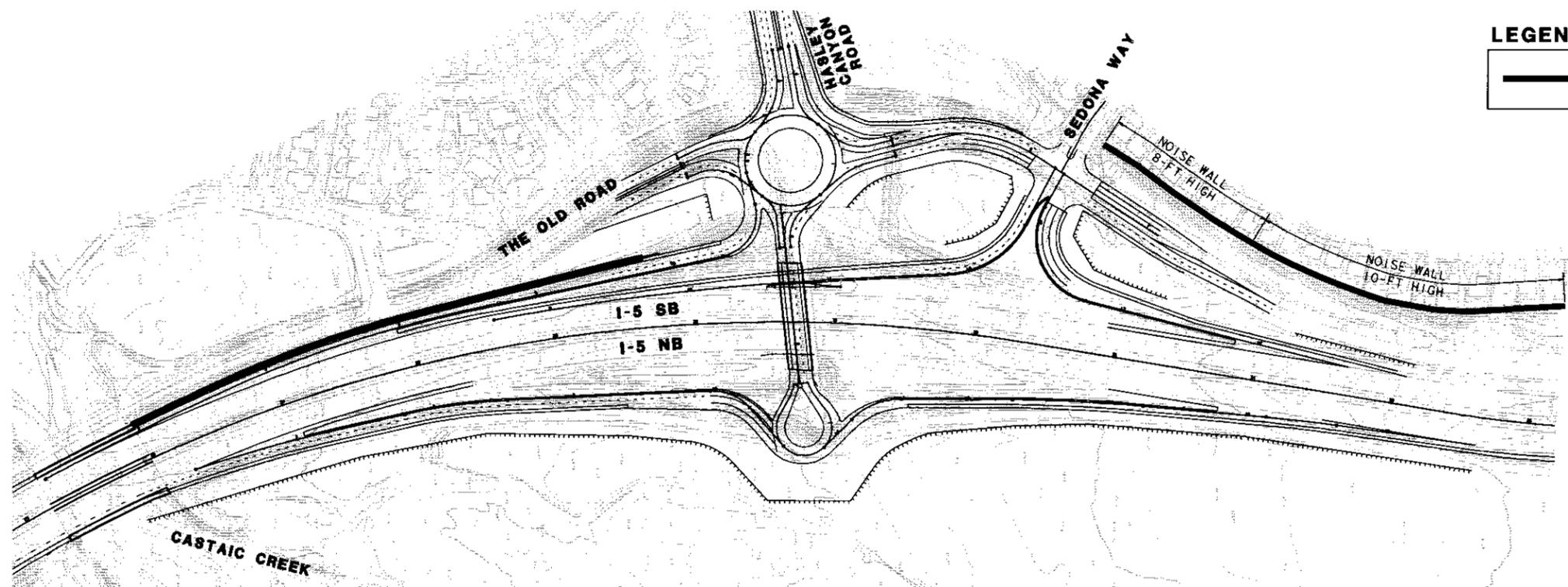
#### 5.6.2.2 Preliminary Reasonableness Determination

According to the Caltrans *Traffic Noise Analysis Protocol*, the overall "reasonableness" of the above noise abatement options should be determined by considering the cost of the abatement, absolute noise levels, change in noise levels resulting from the barriers, noise abatement benefits, date of development along the highway and potential environmental impacts of noise barrier construction.

The preliminary reasonableness determination of providing noise abatement for exteriors of residential areas in activity Category B begins with a \$15,000 base allowance per "benefited residence." Caltrans defines a benefited residence as a dwelling unit expected to receive a noise reduction of at least 5 dBA from the proposed noise abatement measure. The 1998 base year allowance is based on a noise barrier cost of \$151 per square meter (\$14 per square foot), which includes costs of the wall, footings, traffic control, drainage, modifying or adding planting, miscellaneous items and a 10 percent contingency.



**HOOK RAMPS ALTERNATIVE**



**HYBRID ALTERNATIVE**

**LEGEND**

— POTENTIAL NOISE BARRIER

**POTENTIAL PROPERTY-LINE NOISE BARRIERS**  
**I-5/HASLEY CANYON ROAD**  
**INTERCHANGE**

The base cost of \$15,000 per benefited residence is adjusted by a number of reasonableness factors as follows:

- If absolute predicted future noise levels are:
  - 69 dBA or less: add \$2,000
  - 70-74 dBA: add \$4,000
  - 75-78 dBA: add \$6,000
  - More than 78 dBA: add \$8,000
- If Build vs Existing noise levels are:
  - Less than 3 dBA: add \$0
  - 3-7 dBA: add \$2,000
  - 8-11 dBA: add \$4,000
  - 12 dBA or more: add \$6,000
- If achievable noise reduction is:
  - Less than 6 dBA: add \$0
  - 6-8 dBA: add \$2,000
  - 9-11 dBA: add \$4,000
  - 12 dBA or more: add \$6,000
- If the project is a new highway construction or if the majority of benefited residences (more than 50 percent) were in existence before January 1, 1978, add \$10,000.

Another reasonableness factor, based on the ratio of total allowance for noise abatement versus the cost of the project without noise abatement, has not been accounted for in this preliminary analysis.

For homes north of Hasley Canyon Road, absolute future noise levels would be about 68 dBA which is 4 dBA above existing noise levels. A right-of-way barrier of a height of 4.9 meters (16 feet) above the I-5 pavement would provide 4 to 5 dBA of noise reduction for these homes. Therefore, the total allowance per benefited residence north of Hasley Canyon Road would be \$19,000.

For noise-impacted homes south of Hasley Canyon Road, absolute future noise levels would be up to 74 dBA which is 3 to 4 dBA above existing noise levels. A right-of-way barrier of a height of 4.9 meters (16 feet) above the I-5 pavement would provide 5 to 9 dBA of noise reduction for these homes. Therefore, the allowance per benefited residence south of Hasley Canyon Road would be \$25,000.

Table 5-5 summarizes the reasonableness data based on the above discussion and a count of existing homes within the project area.

**TABLE 5-5**  
PRELIMINARY REASONABLENESS ANALYSIS

Number of Benefited Residences	Barrier Length (m)	Barrier Area (Sq. m)	Total Barrier Cost	Cost per Benefited Residence	Allowance per Residence	Reasonable?
<b><u>Barrier 1: North of Future Southbound Off-ramp Exit</u></b>						
8	268	1,310	\$197,800	\$24,700	\$19,000	NO
<b><u>Barrier 3: South of Hasley Canyon Road</u></b>						
15	344	1,570	\$237,000	\$15,800	\$25,000	YES

Notes: Assumed barrier cost is \$151 per square meter (\$14 per square foot)  
 Barrier 2 north of Hasley Canyon Road along the on-ramp is not feasible (i.e., achieves < 5 dBA reduction.  
 Number of homes are estimated based on aerial photos of the area.  
 All homes in the project area were built after January 1, 1978.  
 A benefited residence is defined as any residential unit being provided a noise reduction of 5dBA or more by the barrier regardless of whether the unit exceeds the NAC.

From data in Table 5-5 it is apparent that construction of the proposed noise barrier south of Hasley Canyon Road is both feasible and reasonable. It would not be reasonable to construct a barrier along the freeway right-of-way north of Hasley Canyon Road.

Section 5.5 of Caltrans' *Traffic Noise Analysis Protocol* suggests that under certain topographical conditions it may be more practical and effective to construct noise barriers outside the right-of-way on private property. The policy also sets conditions on the construction of noise barriers outside the State's right-of-way, including the requirement that there must be support of all of the affected property owners.

As shown above, placement of a noise barrier at the I-5 right-of-way north of the interchange would not be reasonable noise abatement. Constructing a noise barrier at the County right-of-way would be even less effective in reducing traffic noise at the first row of homes north of Sedona Way. The only practical option to reduce traffic noise exposure within the exterior activity areas of these homes is to construct a barrier at the east edge of their backyards, along the residential property line.

TNM was utilized to evaluate the required heights of property-line noise barriers. For the first eight homes north of Sedona Way, a 2.4-meter (8-foot)-high property-line noise barrier above the building pads would reduce future peak-hour traffic noise levels to about 62 dBA Leq. For the remaining homes to the north, a 3.0-meter (10-foot)-high noise barrier would reduce future traffic noise levels to about 62-64 dBA peak-hour Leq. Figure 8 shows the location of the recommended property line noise barrier.

According to Caltrans District 7 staff, property-line noise barriers would cost less than the more substantial right-of-way barriers because of differences in construction specifications. A 3-meter-high property line noise barrier costs about \$550 per lineal meter to install. The cost associated with removing an existing property line wall is about \$30 per lineal meter. The total length of the property line barrier required for abatement of future traffic noise within the backyards of homes adjacent to I-5 would be about 360 meters, resulting in a total

cost of about \$208,800. Twenty-one homes would benefit from such a noise barrier. Therefore, the barrier cost per benefited residence would be about \$9,950 which is below Caltrans' allowance of \$19,000 per home for this area. It should be noted that no additional costs resulting from the possible acquisition of private property for permanent easement have been accounted for.

It should be noted that noise barriers can have their own negative impacts. Barriers may interfere with the passage of air, interrupt scenic views, create objectionable shadows, or reduce or eliminate visibility of a business from the roadway. Barriers could also create maintenance access problems, make it difficult to maintain landscaping, create drainage problems and provide pockets for trash and garbage to accumulate.

### 5.6.2.3 Construction Noise Mitigation

For this project, equipment operating at the project site would conform with contractual specifications requiring the contractor to comply with all local noise control noise rules, regulations, and ordinances. Furthermore, there are no FHWA or Caltrans criteria for construction noise impacts. Although construction noise impacts would be temporary, the following standard Caltrans measures are recommended to minimize such impacts.

- Whenever possible, limit operation of heavy equipment and other noisy procedures to the daylight hours.
- Install and maintain effective mufflers on equipment.
- Locate equipment and vehicle staging areas as far from residential areas as possible.
- Limit unnecessary idling of equipment.

## 5.7 Light and Glare (Checklist Question 22)

### 5.7.1 Project Impacts

None of the project alternatives are expected to result in new light, glare, or shadows. However, the Build Alternatives for the proposed project would move Hasley Canyon Road to the south, which would result in the existing lighting being moved slightly closer to the existing homes at the southwestern corner of Hasley Canyon Road and The Old Road. The increase in lighting in the backyards of these properties is not anticipated to be substantial.

### 5.7.2 Mitigation

Because there are no substantial project impacts, no mitigation measures are necessary. However, Caltrans would implement BMPs to lessen the impact of less-than-significant project impacts to nearby homes. BMPs that would be implemented include the placement and spacing of street lighting according to standards that would minimize the impact to adjacent properties, which meeting accepted minimum lighting levels for coverage of the roadway. Additionally, full cut-off lighting fixtures and glare shields could be utilized, where appropriate, to minimize light trespass on adjacent properties.

## 5.8 Biological Resources (Checklist Questions 23 to 25, and 27 to 31)

### 5.8.1 Direct Project Impacts

Direct project impacts, discussed below, would be the same for both of the Build Alternatives for the proposed project. No direct impacts would result from the No-Build Alternative.

#### 5.8.1.1 Wildlife Loss and Movement/Habitat Loss and Fragmentation

As discussed in the Natural Environment Study (NES) (BonTerra Consulting, 2000), construction of the proposed project would result in the loss of approximately 0.57 hectare (1.40 acres) of native habitat that provide valuable nesting, foraging, roosting, and denning opportunities for a wide variety of wildlife species. In addition, project implementation would result in the loss of 20.2 hectares (50.0 acres) of non-native habitats that are relatively unimportant as wildlife habitat. However, these non-native habitats do provide nesting, foraging, roosting, and denning opportunities for some species. Given the small amount of impact area, these impacts are considered less than significant because the proposed project would not reduce common wildlife populations in the region below self-sustaining numbers.

Construction noise and human activity within the proposed project area may disrupt or hinder species movement along Castaic Creek temporarily. A portion of the Castaic Creek riverbed would be disturbed by implementation of the proposed project; however, this disturbance would be temporary. Additionally, larger species would be able to use the nearby Santa Clara River to cross under I-5. Therefore, the habitat both up- and downstream of the disturbance would remain connected during construction, and significant project impacts would not occur.

#### 5.8.1.2 Special-Status Plant Species

No special-status plants that would be expected to occur in the study area have been identified at this time due to the lack of suitable habitat. Therefore, implementation of the proposed project would not result in impacts to special-status plant species. Focused surveys would need to be conducted to verify the presence or absence of special-status plant species.

#### 5.8.1.3 Special-Status Wildlife Species

The project would result in the loss of potential habitat for several special-status wildlife species expected to occur in the study area. For those species not observed but expected to occur, potential impacts were evaluated for the habitat in which the species is expected to occupy.

**Invertebrates**—The Quino checkerspot is not expected to occur in the study area. Therefore, project implementation would not result in any impacts on the Quino checkerspot.

**Fish**—The unarmored three-spine stickleback and arroyo chub occur in Castaic Creek and in nearby Santa Clara River between I-5 and the Santa Clara River confluence with Castaic Creek. Because the proposed project would impact Castaic Creek, impacts to these species would be potentially significant.

**Amphibians**—The study area provides potentially suitable habitat for the arroyo toad. Although there are no records of this species in the study area, potential habitat is present and there are reports of this species upstream from the study area. If present, the proposed project would impact 0.38 hectare (0.95 acre) of potential habitat for this species. This impact would be considered significant if this species is found to be present in the study area.

The California red-legged frog is not expected to occur in the study area. Therefore, project implementation would not result in any impacts on the California red-legged frog.

**Reptiles**—Special-status reptile species potentially occurring in the study area include the silvery legless lizard, western pond turtle, coastal western whiptail, San Bernardino ringneck snake, coastal rosy boa, coast horned lizard, coast patch nose snake, and the two-striped garter snake. The proposed project would impact approximately 0.56 hectare (1.4 acres) of potential habitat for these species. Of the aforementioned species, only the western pond turtle and two striped garter snake are listed as Threatened or Endangered by state or federal agencies. Therefore, impacts to these species would be considered significant. The silvery legless lizard and San Bernardino ringneck snake do not meet the criteria in Section 15380; therefore, impacts to these species would be considered adverse, though less than significant.

**Birds**—A variety of bird species that are considered special status, but not listed as Threatened or Endangered by state or federal resources agencies, occur or potentially occur in the study area. These species include the tricolored blackbird, Southern California rufous-crowned sparrow, Bell's sage sparrow, western yellow warbler, California horned lark, yellow-breasted chat, and loggerhead shrike. The proposed project would result in the loss of 0.18 hectare (0.45 acre) of disturbed mixed sage scrub that could potentially be used by the southern California rufous-crowned sparrow, Bell's sage sparrow, and loggerhead shrike. The proposed project would result in a loss of 721 hectares (17.81 acres) of disturbed/ruderal and agricultural land that could potentially be used by the tricolored blackbirds, California horned lark, and loggerhead shrike. The proposed project would result in the loss of 0.38 hectare (0.95 acre) of riparian habitat for the tricolored blackbirds, western yellow warbler, and yellow-breasted chat. Due to the low status of these species (i.e., not listed as Threatened or Endangered by state or federal resource agencies) and the abundance of similar habitat nearby, impacts to these species would be considered adverse, but less than significant.

The southwestern willow flycatcher, coastal California gnatcatcher, and least Bell's vireo are listed as either Threatened or Endangered by state and federal resource agencies. The coastal California gnatcatcher is not expected to occur in the study area due to the low quality of the disturbed mixed sage scrub and the isolation of

this habitat from large areas of sage scrub. Therefore, project implementation would not result in impacts to this species. The proposed project would impact approximately 0.38 hectare (0.95 acre) of riparian habitat that may provide foraging for the southwestern willow flycatcher and least Bell's vireo, if these species are present. Neither of these species are expected to nest along Castaic Creek due to the lack of suitable nesting habitat. However, appropriate nesting vegetation is located along Castaic Creek adjacent to the study area on the downstream side, and also along the Santa Clara River. Both of these species have nested in the vicinity.

The proposed project would result in the loss of suitable foraging for a variety of raptor species including the Cooper's hawk, sharp-shinned hawk, golden eagle, long-eared owl, ferruginous hawk, Swainson's hawk, northern harrier, white-tailed kite, merlin, prairie falcon, and burrowing owl. Of these species, the Swainson's hawk is state Threatened, and the golden eagle and white-tailed kite are considered fully protected species. The loss of foraging habitat for these species would cumulatively contribute to the ongoing regional and local loss of foraging habitat for these species. This is considered an adverse, though not significant impact, because a relatively substantial amount of similar foraging habitat is available in the region.

The Cooper's hawk, long-eared owl, white-tailed kite, and burrowing owl have potential to nest in the study area. The long-eared owl, white-tailed kite, and burrowing owl are considered to meet the criteria in Section 15380 in CEQA. Therefore, any impacts to these species would be considered significant. In addition, should any active raptor nest (common or special-status species) be found in the study area, the loss of the nest would be considered a violation of the California Fish and Game Code 3505.5. The loss of any active raptor nest occurring on the site would be considered significant.

**Mammals**—Special-status mammal species potentially present in the study area include the pallid bat, pale Townsend's big-eared bat, spotted bat, California mastiff bat, San Diego black-tailed jackrabbit, small-footed myotis, Yuma myotis, southern grasshopper mouse, and American badger. The California leaf-nosed bat and San Diego desert woodrat are not expected to occur in the study area; therefore, project implementation would not result in any impacts to these species. The proposed project would result in the loss of habitat for the San Diego black-tailed jackrabbit, southern grasshopper mouse, and American badger. Due to the low status of these species and the limited amount of habitat loss relative to the availability of similar habitat nearby, impacts to these species would be considered adverse, but not significant.

The proposed project would impact foraging habitat for the six bat species. The loss of foraging habitat for these species would cumulatively contribute to the ongoing regional and local loss of foraging habitat for these species. This is considered an adverse, though not significant, impact because similar foraging habitat is available nearby. Limited roosting habitat is available for the pale Townsend's big-eared bat under The Old Road/I-5 bridges in the study area, although no bats were observed roosting there during the general wildlife survey. The proposed project would temporarily eliminate potential roosting habitat for this species during construction. After the completion of the widened bridge, more potential roosting habitat would

be available for this species. Therefore, impacts to the roosting habitat of the pale Townsend's big-eared bat would be less than significant.

## 5.8.2 Indirect Project Impacts

Indirect project impacts, discussed below, would be the same for both of the Build Alternatives for the proposed project. No indirect impacts would result from the No-Build Alternative.

### 5.8.2.1 Noise Impacts

Noise levels in the study area would increase over present levels during construction of the proposed project. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and denning activities for a variety of wildlife species. Because most species in the vicinity of the study area are not listed as Threatened or Endangered by state or federal resource agencies, these impacts are considered adverse, but not significant. However, the southwestern willow flycatcher, least Bell's vireo, and raptor species would incur temporary short-term impacts from construction noise and may be temporarily displaced to adjacent riparian areas due to these disturbances. Indirect noise impacts to these species would be considered significant because these species are protected by federal and state wildlife agencies.

Noise would also increase over present levels when the traffic volumes on I-5 increases. Therefore, habitat remaining in the study area and vicinity adjacent to development would be considered disturbed. Wildlife stressed by noise may be extirpated from the remaining onsite natural open space, leaving only wildlife tolerant of human activity. Chronic (i.e., permanent) noise increase would be considered adverse, but not significant, since it would contribute to an incremental loss of habitat but would not reduce wildlife populations below self-sustaining levels.

### 5.8.2.2 Increased Dust and Urban Pollutants

Grading activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and herbs. The respiratory function of the plants in the area would be impaired when dust accumulation is excessive. This indirect effect of project construction on the native vegetation in the immediate vicinity of the construction area is considered adverse, but not significant, since it would not reduce plant populations below self-sustaining levels.

Additional impacts to biological resources in the area could occur as a result of changes in water quality. Urban runoff from the proposed project containing petroleum residues and the potential for improper disposal of petroleum and chemical products from construction equipment (temporary) or infrastructure areas (i.e., vehicles, improper disposal of chemicals) (permanent) could adversely affect water quality and, in turn, affect populations of aquatic species, including common and special-status fish, amphibian, and reptile species, as well as other species that use riparian areas including common and special-status amphibian, reptile, birds, and mammal species. Water quality could also be adversely affected by runoff of nutrients from project landscape features. In addition, runoff carrying silt into these watercourses could smother eggs of aquatic species. These impacts are considered potentially significant because Castaic Creek is a tributary to the Santa Clara

River, a Significant Ecological Area, which is known habitat for the unarmored three-spined stickleback, arroyo chub, southwestern pond turtle, and two-striped garter snake, and is potential habitat for the Santa Ana sucker and arroyo toad. Indirect impacts to water quality would reduce the biological value of riparian habitats along Castaic Creek and the Santa Clara River. Therefore, these impacts would be considered potentially significant. However, standard Best Management Practices implemented through the Stormwater Pollution Prevention Plan and National Pollutant Discharge Elimination System (NPDES) permit would reduce the level of impact to a level that is less than significant.

#### 5.8.2.3 Night Lighting

Lighting of the facility would inadvertently result in an indirect effect on the behavioral patterns of nocturnal and crepuscular (active at dawn and dusk) wildlife at these areas. Of greatest concern is the effect on small ground-dwelling animals that use the darkness to hide from predators, and on owls, which are specialized night foragers. These impacts, while adverse, would not be expected to reduce any current wildlife population below self-sustaining levels.

#### 5.8.2.4 Human Activity

Human disturbance could disrupt normal foraging and breeding behavior of wildlife remaining on the site, diminishing the value of onsite habitat areas. However, Caltrans normally fences highway right-of-way, which will help reduce human access to these open space areas. Therefore, impacts due to human activity would be considered less than significant.

### 5.8.3 Cumulative Impacts

The I-5/Hasley Canyon Road project is one of many infrastructure projects proposed for the project vicinity. The section of SR-126 southwest of the proposed project was recently widened to accommodate higher traffic volumes in the region. The I-5/SR-126 interchange and the SR-126/Commerce Center Drive intersections are also currently proposed for improvements to accommodate higher traffic volumes. The Commerce Center Bridge across Castaic Creek is currently under construction, and a bridge across the Santa Clara River is also planned. In addition to roadway improvements, a high volume of commercial and industrial projects are currently under construction or are proposed for development.

Direct and indirect impacts to most special-status species have been addressed above. However, species may incur significant cumulative noise impacts if construction of the Build Alternatives of the proposed project occurs concurrently with construction of other projects in the immediate vicinity. Indirect noise impacts from concurrent multiple projects may discourage breeding of the least Bell's vireo, southwestern willow flycatcher, and tri-colored blackbird in suitable habitat in Castaic Creek downstream of the study area, and along the Santa Clara River. This cumulative indirect impact would be considered significant.

The Valencia Company analyzed impacts that would result from the development proposed by their company and similar projects from the present to 2018 in their Natural River Management Plan (NRMP). The NRMP found that impacts to biological resources of the Santa Clara River and its tributaries were less than significant with the incorporation of

appropriate mitigation measures. Because the cumulative projects mentioned above would be subject to the NRMP mitigation measures, cumulative impacts resulting from the Build Alternatives for the proposed project would be less than significant.

No cumulative impacts would result from the No-Build Alternative.

## 5.8.4 Mitigation

Implementation of the following recommended mitigation measures will mitigate direct, indirect, and cumulative biological impacts to a level that is considered less than significant.

Mitigation would be the same for both of the Build Alternatives to the proposed project. No mitigation would be required for the No-Build Alternative, which would have no project impacts.

Section 5.2 Water Resources discusses the implementation of BMPs that would include the temporary and permanent revegetation of exposed soil with native plant material to minimize soil erosion during construction which would also reduce the introduction of non-native plant species on the project site and adjacent areas.

### 5.8.4.1 Riparian Habitat Mitigation

Mitigation for impacts to riparian habitat are discussed above in Section 5.4.2.

### 5.8.4.2 Special-Status Plant Species Mitigation

Because there are no special-status plants that would be expected to occur in the study area and, subsequently, no significant impacts to these species, no mitigation is necessary.

### 5.8.4.3 Special-Status Wildlife Species Mitigation

The proposed project would result in potential direct impacts to several special-status wildlife species that may occur within the mule fat scrub habitat and adjacent watercourse of the proposed project. Potential impacts to these species are considered less than significant after implementation of the following mitigation measures, discussed in more detail in the NES (Bon Terra, 2000):

**Special-Status Fish, Amphibians, and Reptile Avoidance During Construction—**

Impacts to the unarmored three-spine stickleback, arroyo chub, Santa Ana sucker, arroyo toad, two-striped garter snake, and southwestern pond turtle may occur during construction. Prior to initiating construction, the project area shall be inspected by a qualified biologist for these species. The ACOE and the CDFG shall be notified of the inspection and shall have the option of attending the inspection. Construction work areas and access roads shall be cleared of the species listed above by a qualified biologist using procedures approved by the ACOE and CDFG. Species shall be relocated according to a plan approved by the ACOE and CDFG. The removal of wetland and riparian vegetation shall be avoided to the greatest extent feasible.

**Protection of Nesting Raptors—**Two weeks prior to construction activities, a qualified biologist shall conduct a survey to determine if any raptors are nesting in large trees in riparian areas within or adjacent to the riverbed and in ornamental

areas. If nesting is not occurring, construction work can proceed. If an active nest is present, Caltrans will coordinate with CDFG to develop an appropriate response. An appropriate response may include delaying construction work until fledglings have left the nest. Results of the surveys and relocation efforts shall be provided to CDFG.

**Protection for the Burrowing Owl**—Two weeks prior to construction activities, a qualified biologist shall conduct a survey to determine if the burrowing owl is present in the study area and to determine the nesting status of any individuals present. If nesting is not occurring, construction work can proceed after any owls have been evacuated from the site using CDFG-approved burrow closure procedures. If nesting is occurring, Caltrans will coordinate with CDFG to develop an appropriate response. An appropriate response may include delaying construction work until fledglings have left the nest. Preconstruction surveys shall only be conducted in areas dominated by field crops and grassland. Results of the surveys and relocation efforts shall be provided to CDFG. This mitigation would reduce potential impacts to a level of less than significant.

**Nesting Birds**— In compliance with the California Department of Fish and Game Code 3505 and 3503.5, for those project areas where nesting birds may occur the project applicant shall either not remove nesting habitat from March 15 through September 15, or shall survey all potential nesting habitat within the entire project impact area for active bird nests. If an active bird nest is located, the nest site shall be flagged or staked a minimum of 5-yards in all directions. This flagged zone shall not be disturbed until the nest becomes inactive, unless otherwise directed by the California Department of Fish and Game.

**Indirect Impacts During Construction**—The noise from the proposed project has the potential to indirectly impact the southwestern willow flycatcher and least Bell's vireo. In addition, the proposed project has the potential to indirectly impact water quality and the habitat of several aquatic wildlife species, including the unarmored three-spine stickleback, arroyo chub, Santa Ana sucker, arroyo toad, two-striped garter snake, and southwestern pond turtle. To mitigate these impacts, a variety of measures shall be implemented to avoid sensitive bird species during construction and to ensure the maintenance of existing water quality; these measures are listed and thoroughly discussed in the NES (BonTerra, 2000). Through the implementation of these mitigation measures, these potential indirect impacts could be reduced to a level of less than significant.

#### 5.8.4.4 Cumulative Impacts

Cumulative impacts resulting from the Build Alternatives to the proposed project would be less than significant. Therefore, no additional mitigation would be required.

## **5.9 Agriculture (Checklist Question 26)**

### **5.9.1 Project Impacts**

Inactive farmland is present both east and west of I-5. Because the area is not actively being farmed, the acquisition of prime farmland or farmland of statewide importance for either of the Build Alternatives would not be substantial. According to the Farmland Protection & Policy Act (FPPA), farmland does not include those lands that a state or local government has designated, by planning or zoning, for commercial, industrial, or residential use. This property has been zoned by Los Angeles County as Public Service Facilities and Floodway/Floodplain. No impacts to farmland would result from the No-Build Alternative.

### **5.9.2 Mitigation**

No mitigation is necessary because there are no substantial impacts to farmland.

## **5.10 Employment, Industry, and Commerce (Checklist Question 40)**

### **5.10.1 Project Impacts**

The Build Alternatives of the proposed project would not negatively affect local or regional employment, industry, or commerce, or require the displacement of businesses. It would, however, have a significant positive effect for local and regional businesses, which would benefit from improved traffic operations at the I-5/Hasley Canyon Road interchange and the Hasley Canyon Road/The Old Road intersection. The proposed interchange would also accommodate planned growth within the Valencia Commerce Center.

The No-Build Alternative would result in worsening traffic operations at the I-5/Hasley Canyon Road interchange, as well as the Hasley Canyon Road/The Old Road intersection. These impacts are discussed in detail in Section 5.13.

### **5.10.2 Mitigation**

No mitigation is necessary because there are no substantial, adverse impacts to business, employment, industry, or commerce. Mitigation for impacts resulting from implementation of the No-Build Alternative is discussed in Section 5.13.

## **5.11 Community Facilities (Checklist Question 42)**

### **5.11.1 Project Impacts**

There are no community facilities such as medical, education, scientific, or religious institutions, ceremonial sites, or sacred shrines located within the immediate project area. As a result, there are no significant impacts to community facilities resulting from any of the project alternatives.

### 5.11.2 Mitigation

No mitigation is necessary because there are no significant impacts to community facilities.

## 5.12 Public Services (Checklist Question 43)

### 5.12.1 Project Impacts

Implementation of the Build Alternatives to the proposed project would not result in the need to relocate any existing utilities. Additionally, no emergency facilities (police, fire, or hospitals) would be directly affected. However, emergency services could experience temporary, short-term traffic delays during construction. Any road closures and detours would be advertised in advance and signed to minimize adverse impacts to both the travelling public and emergency service operators. This impact would not be considered substantial due to the temporary, short-term nature of the impact. No impacts would result due to implementation of the No-Build Alternative.

### 5.12.2 Mitigation

No mitigation is necessary because there are no substantial impacts to public services or facilities.

## 5.13 Transportation System (Checklist Questions 44 and 45)

### 5.13.1 Project Impacts

#### 5.13.1.1 Assessment of the No-Build Alternative

The population of the Santa Clarita Valley is expected to grow to approximately 500,000 by the year 2020 (Austin-Foust, 1999). The area will experience a significant increase in traffic from both regional and inter-regional growth projections, as well as buildout of local developments. Valencia Company and others have developed residential and commercial properties north of SR-126 and west of I-5 during recent years, with additional development activities planned in the future. Figure 20 shows the general land use summary of areas within the project area.

Buildout of Commerce Center and other area development is expected to occur by 2020, which will significantly increase the traffic volumes within the study area. The 2020 ADT volumes and No-Build average peak-hour traffic volumes are shown in Figures 20 and 21, respectively. As shown in these figures, there is projected to be a significant growth in traffic using the I-5/Hasley Canyon Road interchange and the adjacent roadway network over the next 20 years. The ADT on I-5 south of the interchange is projected to increase from 73,000 to 177,000 vehicles. The ADT on Hasley Canyon Road, west of The Old Road, is projected to increase from 5,000 to 49,000 vehicles, nearly a tenfold increase. In the A.M. peak hour, the volume on the northbound off-ramp is projected to increase from 415 to 2,100 vehicles. In the P.M. peak hour, the volume on the southbound on-ramp is projected to increase from 561 to 2,100 vehicles. On Hasley Canyon Road between the ramps, the westbound volume is projected to increase from 573 to 1,700 vehicles and the eastbound volume is projected to increase from 61 to 800 vehicles in the P.M. peak-hour. At the

intersection of Hasley Canyon Road and The Old Road, the westbound A.M. peak-hour volume is projected to increase from 443 to 2,250 vehicles and the eastbound P.M. peak-hour volume is projected to increase from 505 to 2,350 vehicles. In general, the volume on the roadway network within the study area is projected to more than quadruple over the next 20 years.

An intersection capacity analysis was performed based upon future traffic projections to determine V/C ratios in the year 2020 of the existing at-grade intersections within the study area. Based upon the above criteria, the LOS for the existing study area is shown in Table 5-6.

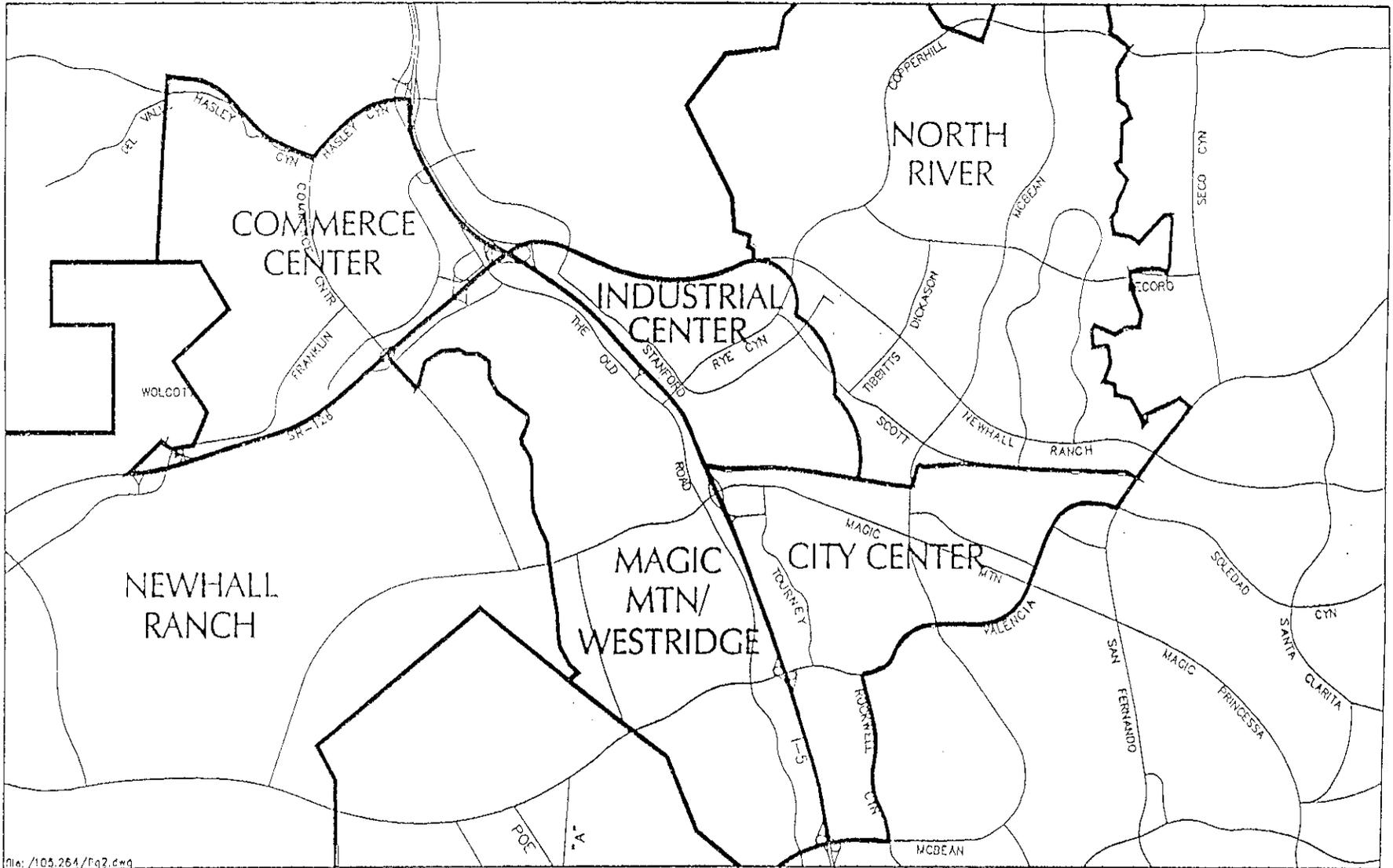


Figure 20  
General Land Use Summary



**TABLE 5-6**  
Future LOS – No-Build

Location	A.M.		P.M.	
	v/c	LOS	v/c	LOS
I-5 NB Ramps and Hasley Canyon Road	1.31	F	1.54	F
I-5 SB Ramps and Hasley Canyon Road	1.92	F	2.14	F
Hasley Canyon Road and The Old Road	1.25	F	1.09	F

The v/c ratios range between 1.09 and 2.14, which shows that within the study area, the future traffic will operate at a LOS F during both the A.M. and P.M. peak hours without any improvements to the interchange. The existing interchange and the Hasley Canyon Road/The Old Road intersection cannot accommodate the forecasted growth. Congestion and delay within the traffic network will increase to the extent where the intersection approach queues may extend through adjacent intersections creating gridlock. Similarly, the spillover of queues at ramp intersections may extend onto the I-5 mainline, creating a significant safety and operation problem on I-5.

In summary, the No-Build Alternative would not meet the purpose and need of the proposed project as described in Section 1, and would not:

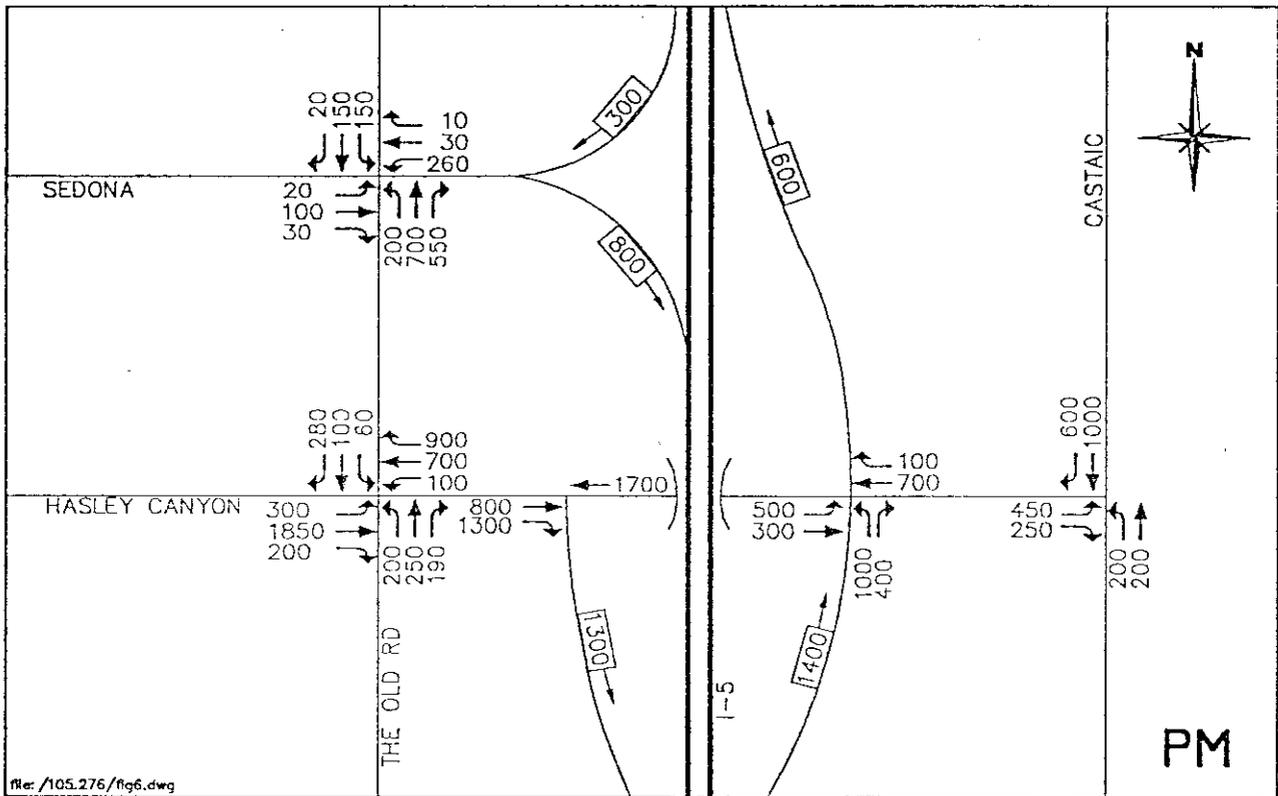
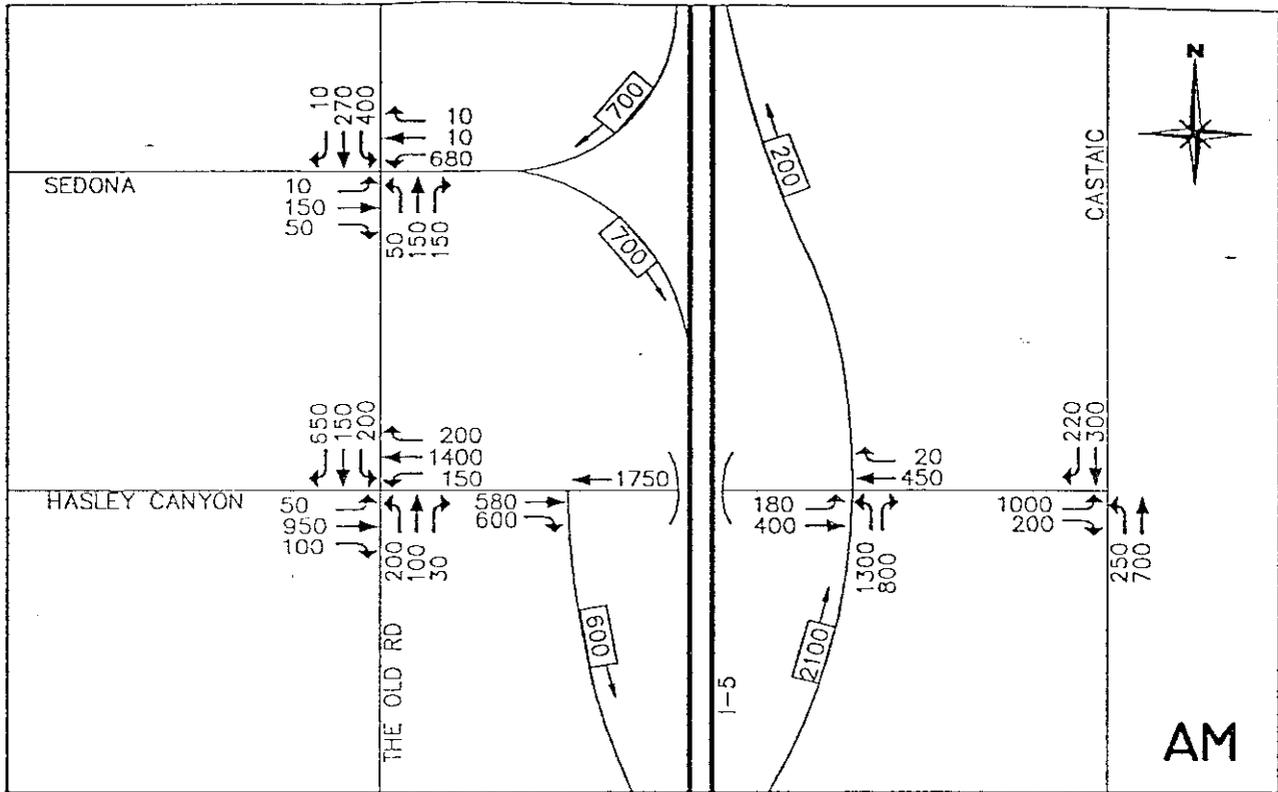
- Be consistent with local and regional planning by accommodating local circulation and access needs
- Alleviate congestion and capacity deficiencies
- Accommodate the 2020 forecasted area build-out and the resultant increases in traffic volumes
- Enhance safety

#### 5.13.1.2 Assessment of the Hook Ramp Interchange Alternative

This alternative proposes the construction of southbound hook on- and off-ramps that intersect The Old Road opposite Sedona Way, creating a four-way signalized intersection. Sedona Way provides access to a 280 unit single-family residential development, and intersects The Old Road approximately 200 meters (656 feet) north of Hasley Canyon Road.

Intersection capacity analyses were performed to analyze the operation of the intersection associated with the hook ramps alternative. The result of the analysis for each of the intersections is summarized below. The peak-hour volumes for the proposed Hook Ramp Interchange Alternative are shown in Figure 22.

The proposed three-phase signal at the intersection of the northbound ramps with Hasley Canyon Road would operate at LOS C during both the A.M. and P.M. peak hours. The heavy volume of left turn vehicles from the northbound off-ramp onto westbound Hasley



file: /105.276/fig6.dwg

**Figure 22**  
**2020 Peak-Hour Traffic Volumes**  
**Hook Ramps Alternative**

Canyon Road (1,300 in the A.M. peak hour and 1,000 in the P.M. peak hour) would require approximately 65 percent of the A.M. cycle length and 45 percent of the P.M. cycle length.

At the intersection of Hasley Canyon Road with The Old Road, the proposed four-phase signal would operate at LOS B during the A.M. peak hour and LOS D during the P.M. peak hour. The through movements on Hasley Canyon Road (westbound during the A.M. peak hour and eastbound during the P.M. peak hour) would be the predominant movements and would require approximately 65 percent of the morning cycle length and 75 percent of the evening cycle length.

The proposed four-phase signal at the intersection of The Old Road with Sedona Way and the southbound hook ramps would operate at LOS B during the A.M. peak hour and LOS A during the P.M. peak hour. The predominant movements in the A.M. peak hour would be from southbound The Old Road to the southbound hook on-ramp, and from the southbound hook off-ramp to southbound The Old Road. In the P.M. peak hour, the predominant movements would be the through movement on northbound The Old Road and from northbound The Old Road to the southbound hook on-ramp.

In summary, the Hook Ramp Interchange Alternative would add the necessary capacity to accommodate the future buildout within the area. When compared to the No-Build Alternative for the year 2020, the Hook Ramp Interchange Alternative would alleviate several of the potential operational and safety problems identified in the analysis of the no-build condition. Additionally, the Hook Ramp Interchange Alternative would:

- Be consistent with local and regional planning by accommodating local circulation and access needs
- Alleviate congestion and capacity deficiencies
- Accommodate the 2020 forecasted area buildout and the resultant increases in traffic volumes
- Enhance safety

The construction of the Hook Ramp Interchange Alternative would result in minimal changes to local access and circulation. On a local and regional level, there would be no additional traffic generated as a direct result of this project.

### 5.13.1.3 Assessment of the Hybrid Interchange Alternative

This alternative is referred to as the Hybrid Interchange Alternative because it is a combination of the Hook Ramp Interchange and a Roundabout Interchange design that was previously analyzed in the Project Study Report. The southbound I-5 hook ramps to The Old Road and the new signalization of the four-way intersection with Sedona Way are the same as previously described for the Hook Ramp Interchange Alternative. The major difference with this alternative is that the existing intersection at Hasley Canyon Road and The Old Road would be converted to a modern roundabout, referred to as the west roundabout. A second roundabout, referred to as the east roundabout, would be located at the intersection of Hasley Canyon Road and the northbound on- and off-ramps. The west roundabout would provide free-flow traffic circulation for The Old Road, Hasley Canyon Road, and a second southbound on-ramp. The east roundabout would provide traffic

circulation for the northbound ramps and Hasley Canyon Road. The proposed roundabouts would not require any type of signalization due to their slow speed and free-flow design.

The operation of the roundabouts was analyzed using RODEL, a computer application that estimates delay, queue lengths, and capacity as a function of roundabout geometry and flows. The peak-hour volumes for the proposed Hybrid Interchange Alternative are shown in Figure 23. The results of the RODEL analysis indicate that the east roundabout would operate at LOS A during both the A.M. and P.M. peak hours. In the A.M. peak hour, the east roundabout would serve 580 vehicles entering from eastbound Hasley Canyon Road and 2,100 vehicles entering from the northbound off-ramp. The highest volume would be concentrated in the segment between the northbound on-ramp and Hasley Canyon Road to the east. In the P.M. peak hour, the east roundabout would serve 800 vehicles entering from eastbound Hasley Canyon Road and 1,400 vehicles entering from the northbound off-ramp. The highest volume would occur in the segment between the two northbound ramps.

The results of the RODEL analysis also indicate that the west roundabout would operate at LOS A during the A.M. peak hour and LOS B during the P.M. peak hour. In the A.M. peak hour, the highest volume of entering vehicles would come from westbound Hasley Canyon Road with 1,750 vehicles. The highest volume on the roundabout would be concentrated in the segment between The Old Road southbound and Hasley Canyon Road to the west. In the P.M. peak hour, the highest volume of entering vehicles would come from eastbound Hasley Canyon Road with 2,350 vehicles. The highest volumes in the roundabout would be concentrated in the segments between The Old Road and the southbound on-ramp.

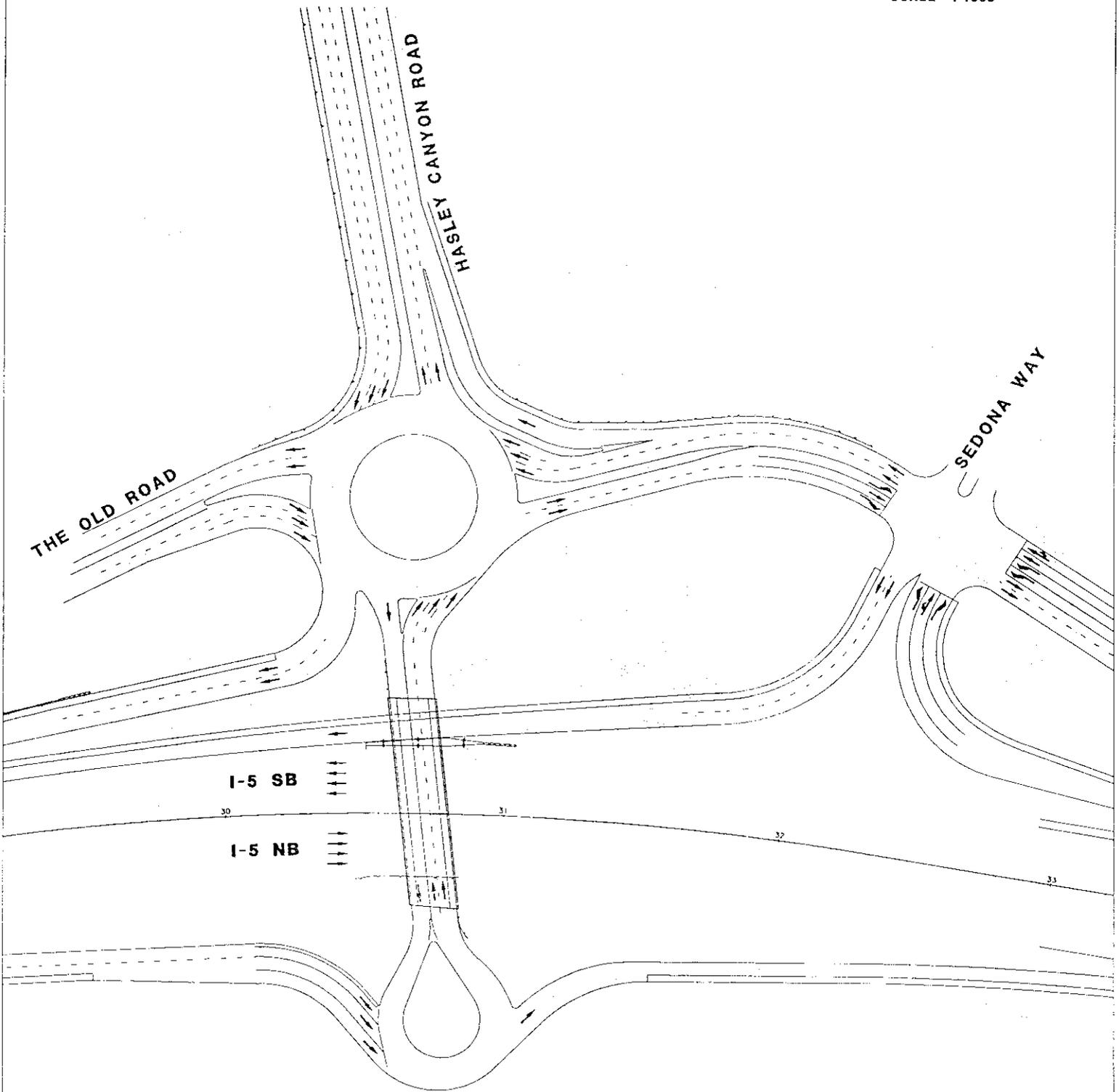
In summary, the Hybrid Interchange Alternative would add the necessary capacity to accommodate the future buildout within the area. When compared to the No-Build Alternative for the year 2020, the Hybrid Interchange Alternative would alleviate several of the potential operational and safety problems identified in the analysis of the no-build condition. Additionally, the Hybrid Interchange Alternative would:

- Be consistent with local and regional planning by accommodating local circulation and access needs
- Alleviate congestion and capacity deficiencies
- Accommodate the 2020 forecasted area buildout and the resultant increases in traffic volumes
- Enhance safety

The construction of the Hybrid Ramp Interchange Alternative would result in minimal changes to local access and circulation. On a local and regional level, there would be no additional traffic generated as a direct result of this project.

### 5.13.2 Mitigation

No traffic mitigation measures are necessary for any of the project alternatives because there are no substantial project impacts.



2020 LANE CONFIGURATIONS  
HYBRID ALTERNATIVE  
I-5/HASLEY CANYON ROAD

FIGURE 23



## 5.14 Hazardous Waste (Checklist Question 48)

### 5.14.1 Project Impacts

As discussed in Section 3.11, an Initial Site Assessment (ISA) was conducted for the proposed project (CH2M HILL, 1999). This report concluded that the following recognized environmental conditions were identified at the subject parcel:

- Potential groundwater contamination from a landfill at nearby properties and from past agricultural land use at the site and leaking USTs.
- Potential for residual concentration of pesticides/herbicides in soil resulting from routine applications associated with past agricultural land use nearby.
- Potential for aerially deposited lead due to vehicle emissions along I-5 may be encountered during construction.

Approximately 2.5 hectares (6.2 acres) of potentially contaminated land would be required right-of-way for the Hook Ramp Interchange Alternative, and 3.0 hectares (7.5 acres) of potentially contaminated land for the Hook Ramp Interchange Alternative. No additional right-of-way is required for the No-Build Alternative. Because no recognized environmental concerns were observed during the 1999 site visit, these potential environmental conditions are not considered adverse impacts. As a result, the proposed project is not expected to result in a substantial risk of the release of hazardous substances during the construction and operation of the proposed project, and would not endanger the safety of workers or the general public. Additionally, neither the presence of these conditions nor the construction or operation of the proposed project are anticipated to violate any published federal, state, or local standards pertaining to hazardous waste, solid waste, or litter control. However, because testing of soil and groundwater contamination levels will be completed after the environmental documentation phase is completed, a definitive level of impact cannot be determined until soil and groundwater tests are completed. These tests must be completed prior to the purchase or exchange of right-of-way to the State of California because the state is prohibited from purchasing or receiving land where contaminants are located.

### 5.14.2 Mitigation

Although no substantial potential for or evidence of hazardous material contamination was observed or detected while conducting the ISA, the following mitigation measures are recommended to further minimize this potential impact during construction activities:

- During construction, waste material will be classified and removed from the construction area(s) to an appropriate disposal site. Waste material removed from the construction area will be disposed of in accordance with current standards specified in Title 22 of the California Code of Regulations (22 CCR).
- If a previously undetected hazardous waste site/location is unearthed during construction, all excavation activities in the immediate vicinity of the contaminated site will be suspended. Caltrans, in conjunction with other appropriate agencies, will

develop a plan to investigate the site of contamination and to determine what corrective measures, if any, may be required to safeguard public health and the environment.

- Aerially deposited lead due to vehicle emissions may be encountered during the excavation of the unpaved areas required for construction of the project. Soil samples will be collected, tested, and analyzed for lead during the design stage after roadway geometric plans have been approved. If lead is found at levels considered hazardous, the results will be noted in the Standard Special Provisions (SSP). The California Department of Toxic Substances Control (DTSC) has granted a variance to Caltrans that defines the allowable reuse of lead-contaminated soils within the project limits. The current DTSC Variance will expire on June 7, 2000. It is anticipated that this variance will be renewed with amended requirements.
- There is the potential for minor groundwater and soil contamination due to nearby leaking underground storage tanks and past agricultural activities. It is believed that the proposed project will not require excavation that will impact the groundwater level. A Site Investigation (SI) to verify the presence and extent of the hazardous waste within the project area will be conducted, if necessary, during the design stage after roadway geometric plans have been approved, so that design and right-of-way issues can be identified and resolved at an early stage. If contamination is identified, Caltrans will consider alternatives (including design variations) to avoid the hazardous waste area. If the site cannot be avoided, remediation of the contaminated site should be considered prior to construction because the State of California cannot purchase or be given property containing contaminated materials.

## 5.15 Commercial Development (Checklist Question 50)

### 5.15.1 Project Impacts

The Build Alternatives to the proposed project would accommodate planned growth within the Valencia Commerce Center, which includes commercial and industrial development. However, the project would not generate the demand for additional development or open up new, currently undeveloped areas for development. As a result, no substantial project impacts are expected. While the No-Build Alternative would not accommodate planned growth within the Valencia Commerce Center, implementation of this Alternative would not result in substantial project impacts.

### 5.15.2 Mitigation

No mitigation measures are necessary because there are no substantial project impacts.

## 5.16 Archaeological and Historic Resources (Checklist Question 51)

### 5.16.1 Project Impacts

The Historic Property Survey Report (HPSR) (CH2M HILL, 2000), prepared to identify any impacts of the proposed project on archaeological or historical resources, indicates that no

archaeological or historic resources exist in the project area. During a field survey conducted by Greenwood & Associates between November 10 and December 2, 1999, a total of 37 properties were identified within the APE. None of the identified properties dates to 1950 or before. None is currently listed in the National Register of Historic Places (National Register), nor do any of the relatively recent properties appear to possess the overriding qualities of design or historical association that would merit their addition to the National Register. Of the four bridges within the APE, all have ratings of historical significance of 4 or 5, indicating that they are not eligible for inclusion on the National Register. As a result, none of the project alternatives would result in impacts to archaeological or historic resources.

### **5.16.2 Mitigation**

In the event that artifacts are found during the construction of the project, the site will be protected until it can be evaluated by a qualified archaeologist. If, during project construction, cultural materials appear, work will stop in the immediate area. Upon such discoveries the contractor shall immediately notify the Environmental Branch Chief and the site will be protected until it can be evaluated by a qualified archaeologist. The Caltrans Archaeologist will consult with the Federal Highway Administration and the State Historic Preservation Officer to formulate a mitigation plan, including avoidance alternatives to mitigate for cultural resource impacts. Work can only resume in that area with approval from the Caltrans Archaeologist.

## **5.17 Scenic Resources (Checklist Question 53)**

### **5.17.1 Project Impacts**

The Build Alternatives for the proposed project would not substantially change the scenic environment within the project area. Construction of either Build Alternative would necessitate grading the area and would also result in a temporary disruption of the natural environment surrounding the I-5/Hasley Canyon Road interchange and Castaic Creek. After construction of the project, the area would be revegetated, thereby minimizing the level of impact. The grading would not be considered a substantial project impact because of the temporary nature of the disruption and the low scenic value of the urban interchange. Impacts along Castaic Creek would also be minimal and temporary. Additionally, the interchange would not obstruct the view of any scenic vista, or create an aesthetically offensive site. No impacts would result from implementation of the No-Build Alternative.

### **5.17.2 Mitigation**

No mitigation measures are necessary because there are no substantial project impacts.

## **5.18 Substantial Impacts Associated with Construction Activities (Checklist Question 54)**

### **5.18.1 Project Impacts**

As discussed in Section 5.6, the Build Alternatives for the proposed project would add noise to the surrounding environment during the construction phase. Activities would generate noise ranging from 88 to 92 dBA at a distance of 15 meters (50 feet). Due to the potential for annoyance or sleep disruption, construction activities are limited to daylight hours. Other normal procedures for minimizing construction noise impacts include maintaining all equipment in good working order, installation and maintenance of mufflers on equipment, and limitations on unnecessary idling of equipment. These normal measures would limit the impacts to a less-than-significant level. No impacts would result from implementation of the No-Build Alternative.

### **5.18.2 Mitigation**

No further mitigation measures are necessary because there are no substantial project impacts.

## **5.19 Potential to Substantially Degrade the Quality of the Environment (Checklist Question 56)**

### **5.19.1 Project Impacts**

As discussed in Section 5.7, there is a potential to substantially degrade the quality of the environment, resulting from impacts to biological resources. However, as discussed there, all impacts resulting from the Build Alternatives for the proposed project would be mitigated to a level that is less than substantial. No impacts would result from implementation of the No-Build Alternative.

### **5.19.2 Mitigation**

No further mitigation measures are necessary because all impacts to biological resources would be mitigated to a level that is less than substantial.

# Section 6

## Consultation and Coordination

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### 6.1 Agency Consultation

During the preparation of this IS/EA, regular PDT meetings were held to discuss design options, factors to be considered during the environmental study process, and scheduling issues. Staff from Caltrans, FHWA, the County of Los Angeles and CH2M HILL attended these meetings. More frequent conversations were conducted to ensure that important issues were resolved between meeting dates.

As part of the coordination necessary for the environmental study process, the following federal, state, and local agencies were consulted:

- Archaeological Information Center, Institute of Archaeology University of California, Los Angeles
- U.S. Army Corps of Engineers
- Los Angeles County Flood Control Department
- Los Angeles County Planning Department
- Native American Heritage Commission
- South Coast Air Quality Management District
- U.S. Fish and Wildlife Service

Staff from these agencies provided substantive information regarding the presence of environmental resources within the project area, regulations governing those resources, impact assessment methodologies, significance of environmental impacts, and the design of any necessary mitigation measures. While no formal or informal consultation with these agencies is required, further consultation and coordination may be necessary at a later date during the permitting process.

### 6.2 Public Coordination

The Los Angeles County Department of Public Works conducted an informal community outreach program to provide information about the project build alternatives and to present educational material advocating modern roundabouts. A description of the public coordination efforts is located below.

#### 6.2.1 Joint Meeting of the Castaic Chamber of Commerce and Town Council

Barry Witler, a representative of the Los Angeles County Department of Public Works, was invited to make a presentation at the joint Castaic Chamber of Commerce/Town Council

meeting, which took place in the Castaic Union School District Boardroom on August 24, 1999. Approximately 75 to 80 people attended the meeting, at which Mr. Witler and Leif Ourston, of Ourston Roundabout Interchanges, presented information about the need for the project, and the design and selection process. After the presentation, videos were shown and other materials were provided to familiarize the audience with modern roundabouts.

### 6.2.2 Cable Access TV

Mr. Witler was also a guest on a Santa Clarita Valley cable access television program called "Community Connection," hosted by Bob Keller on April 27, 2000. Mr. Witler used display maps and photos to illustrate the project concept, project alternatives, and how modern roundabouts operate. The half-hour show was scheduled to air three times after the taping.

### 6.2.3 Community Meetings

The County conducted three informal community meetings (May 2, May 10 and May 31, 2000) sponsored by the Castaic Town Council at different locations in Castaic. The County also made a presentation at the Val Verde Civic Association meeting on August 10, 2000. At these meetings, the County distributed comment cards to the attendees. The comment cards asked attendees to vote on their preferred alternative and to express any additional comments they may have on the proposed project. The majority of the comments received came from the May 31<sup>st</sup> meeting and those comments are shown in Table 6.1. The response column shows where the information relating to the comments can be found within this Draft IS/EA.

In addition to the comment cards distributed at the meetings, Mr. Witler has also responded to questions and comments from the public concerning the I-5/Hasley Canyon Road Interchange Project using the Castaic Town Council website, [www.castaic.org](http://www.castaic.org). Table 6.2 lists the comments that were posted on the website with Mr. Witler's responses and opinions. In addition, the table provides the sections within this document that discuss the comment or question posted.

**TABLE 6-1  
Public Comments Received by the County of Los Angeles at the Community Meetings**

Comment Date	Name	Comment	Response
May 31, 2000	J.E. Yokers	Need to rethink the Sedona on/off-ramp and impact on neighborhood traffic.	Comment noted. Refer to Sections 1.2, 2.4, 3.14 and 5.13.
May 31, 2000	Lisa McKeown	On/off-ramp at Sedona way is totally unacceptable. 800 new homes behind North Bluff will have access through neighborhood to southbound on-ramp.	Comment noted.
May 31, 2000	Debbie Hawkins	Need a better plan with less impact on residential, use SR-126 more.	Comment noted. Refer to Sections 1.2, 2.4, 3.14 and 5.13.
May 31, 2000	Bob Throckmorton	Sedona Way is a small residential street, it is not a feeder to a major freeway. Firebrand and Saguaro feeding onto Sedona will be a substantial backup in the neighborhood, use 126.	Comment noted. Refer to Sections 1.2, 2.4, 3.14 and 5.13.
May 31, 2000	Randall Pennise	Relocate the on/off ramp planned for Sedona to another location a little south.	Comment noted.
May 31, 2000	Bob Lewis	I favor controlled intersections with signals compared to yield signs that are open to driver interpretation.	Comment noted.
May 31, 2000	Jill Bills	Hate the Sedona Way off-ramp/on-ramp, likes the traffic circle idea. Would like to see options on the Sedona Way off-ramp, maybe phase the opening of it or preferably don't construct at all.	Comments noted.
May 31, 2000	Dwight Hawkins	No Sedona on/off-ramp. Favors the modern roundabout without the Sedona ramps.	Comment noted.
May 31, 2000	James Stephens	The roundabout appears to be by far the superior plan.	Comment noted.
May 31, 2000	Teresa Friederichs	Is concerned about lighting and sound.	Refer to Sections 3.12, 3.13, 5.6 and 5.7.
May 31, 2000	Mary Flynn	Favors the roundabout after experiencing smooth flow of traffic with this system in Ireland.	Comment noted.
May 31, 2000	Dick Flynn	Roundabouts work just fine, forget any negative.	Comment noted.

**TABLE 6-2****Public Comments Posted on Website ([www.castaic.org](http://www.castaic.org))**

<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
June 15, 2000	J.E. Yokers	The County and Caltrans should be concentrating on completing the 126/I-5 interchange in order to reduce pressure on the Hasley/I-5 interchange. Once 126/I-5 is completed, then perform another traffic study. The traffic pressure will decrease on Hasley Canyon. This may render the need for a traffic circle and interchange moot and save about \$26 million as well.	Sections 1.2 and 3.14 discuss existing and future traffic conditions within the proposed area.
June 16, 2000  June 22, 2000	Hung Lo Lee  Barry Witler, County of Los Angeles	At the informal public meeting, County staff stated that Caltrans favored a regular on/off ramp design, and that the County preferred the traffic circle. I agree that the I-5/SR-126 interchange should be completed first, before a decision is made regarding the Hasley Canyon ramps.	Improvements to the I-5/SR-126 interchange are currently scheduled to begin construction prior to the start of construction for the I-5/Hasley Canyon Road interchange. Sections 2.1 and 2.3 describe these projects.  In response to comment posted by Hung Lo Lee: "Caltrans has taken the position that both alternatives will operate safely and effectively. Experience and data about modern roundabouts worldwide and in the U.S. back up our (the County of LA) position that the roundabouts will operate more effectively and will be safer. They do not dispute that. We also know that the roundabout alternative will lessen impacts on property and create less noise and pollution. Because the process takes several years to get an interchange built (over a year to do design plans), if we wait for 126/I-5 to be in place before making a decision, the community will experience major congestion at Hasley."
June 21, 2000	Greg Ferrier, Councilman	Keep in mind that these are COUNTY proposals, not the Town Council's! L.A. County has told us we will be getting some variation of one of these realignments. Personally, I would like to see traffic directed to the Commerce Center via Hwy 126 as we were originally told.	Comments and opinions regarding this project have been noted.

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
June 17, 2000	Hung Lo Lee	The time frame for the construction of the Hasley Canyon ramps could be longer than the County states. Are the ramps going to be open during construction? Are all the ramps and bridges from Valencia Blvd. to Templin Hwy. Going to be under construction at the same time?	Preliminary construction timing and phasing for the proposed project is discussed in the Draft Project Report. Detailed phasing of this project will occur at a later time, once an alternative has been chosen.
June 24, 2000	Barry Witler, County of Los Angeles		In response to comment posted by Hung Lo Lee: “...Hasley/I-5 will be designed to continue operating during construction. The existing bridge will remain in place while a parallel bridge is constructed. Then, the existing bridge will be torn out (because it is not long enough to accommodate future lanes planned for the I-5 by Caltrans) and the new bridge will be expanded. Regarding all the interchange projects and reconstruction planned along the I-5 freeway, Caltrans intends to coordinate them to minimize inconvenience to motorists. I can't tell you which ones will remain open during construction, but typically, they don't close two consecutive interchanges at the same time.”
June 20, 2000	Doug M.	Why doesn't the County install a noise-blocking wall along I-5 like the one along the 14 in Canyon Country?	Sections 3.13 and 5.6 address the topic of noise.
June 21, 2000	Stacey Gordon, Administrator, Castaic.org		Response to Doug M. Comments: “Caltrans put up those freeway soundwalls, not the County. To get one, you usually have to have some development in the area that necessitates widening the freeway. We'll get a sound wall along The Old Road south of Hasley Canyon, extending to around Ameci's, after the traffic circle/conventional interchange improvements at Hasley Canyon are completed (probably 2003)”
June 22, 2000	Barry Witler, County of Los Angeles		In response to comment posted by Doug M.: “This is a matter that should be taken up with Caltrans District 7. If sound walls will be needed in connection with the interchange project, they will be included. What you are talking about is too much noise today which is not a result of this project.”

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
June 23, 2000	Doug M.	Response to Barry Witler's response to original comment: "I fully realize that the noise we have today is not a result of this project. My point was that this project will NOT benefit the residents of North Bluffs, while a noise wall would."	Comment noted.
June 15, 2000	J.E. Yokers	The traffic circle includes an on/off ramp at Sedona Way, which will turn North Bluffs neighborhood streets into freeway feeders. This will increase traffic, endanger our children, and lower property values throughout the neighborhood. I invite the webmaster of this site to include a poll question regarding the on/off-ramp at Sedona Way.	Sections 3.2, 3.4, 3.14 and 5.19 address these topics.
June 15, 2000	J.E. Yokers	The traffic circle proposal includes a new interchange at the Sedona Way/Old Road intersection. Sedona Way is the main entrance to the North Bluffs neighborhood. Traffic through North Bluffs will increase as residents in newly built Hasley Hills use Firebrand as a feeder from I-5. The increased traffic will endanger children who use Sedona as a school bus stop and who play in the cul-de-sac.	Sections 3.2, 3.4, 3.14 and 5.19 address these topics. Further traffic studies may be needed to address some of these additional concerns.

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
June 19, 2000	Robert [No Last Name]	"NIMBY" =Not In My Back Yard! This is especially true for me. If the ramp gets built, cars exiting I-5 south would almost be in my backyard, which overlooks the North Bluffs sign. We have all the traffic we can handle at the bottom of the hill. I am outraged that I need to worry about the possibility of a very significant increase of traffic streaming past the front of my house endangering my two children. Living on the corner of the entrance to the tract, I can tell you this, some people treat the turn from Sedona on to Saguaro or Firebrand like its turn one of the Daytona 500. The speed bumps that were installed has helped some, but if the traffic flow were to increase it would kill the neighborhood. I am no willing to change my neighborhood into a major thoroughfare for freeway access. Putting an on/off-ramp at Sedona would be a huge slap in the face for all those that currently live in North Bluffs. It would lower the property values by having an off-ramp feed into my backyard.	Sections 3.2, 3.4, 3.14 and 5.19 address these topics.
June 24, 2000	Barry Witler, County of Los Angeles		In response to comment posted by Robert: "...you can expect an increase in traffic on your corner as residential units continue to be built out in Hasley Hills and other planned tracts west of The Old Road and north of Hasley. It will be traffic generated by those developments. The extent of that increase is something we are looking at now. It will have little to do with ramp placement. The environmental document should address noise and traffic at your corner and propose any necessary mitigation (i.e. sound walls if needed)."
June 19, 2000	Megan Rodriguez	This is a terrible idea, especially at Sedona Way. There are too many children that play in the neighborhood, and a jogger was hit last week by a minivan. The area is too residential to turn into a freeway on/off ramp, especially considering the trucks and semis.	Comments and opinions regarding this project have been noted.

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
June 22, 2000	Barry Witler, County of Los Angeles		In response to comment posted by Megan Rodriguez: "Traffic at Sedona Way and along Saguaro is the result of existing development and approved new development some of which is currently under construction. Traffic exiting the offramp across from Sedona with destinations other than the residential development will have no reason to enter. Large semi trucks are prohibited on local streets. The Sedona cul-de-sac will not have any additional traffic."
June 23, 2000	J.E. Yokers	Response to Barry Witler response: Was a study of traffic coming from Hasley Hills using Creekside Lane as an entrance to North Bluffs performed? Large semi trucks may be prohibited from entering Sedona Way, but they still enter and turn around, usually due to a wrong turn on The Old Road. With the new hook ramps, this will increase the opportunity for trucks to enter Sedona Way. The Sedona cul-de-sac is occasionally used by lost motorists to turn around. With Sedona being an off-ramp collector, I see an increase in this type of incident as well.	Sections 3.14 and 5.13 discuss traffic and the transportation system within the proposed project area.
June 24, 2000	Barry Witler, County of Los Angeles		In response to comment posted by J.E. Yokers: "...each tract must have its own traffic study that takes into account other proposed or existing developments. Of course, none of them contemplated ramps across from Sedona Way. We are taking another look at the overall traffic picture for all the development expected north of Hasley and west of The Old Road... However don't expect any revelations because the introduction of ramps at that location should not change the choices of very many present and future residents about which way they would access the freeway."
July 17, 2000	Diana Rotellini	Opposed to the traffic circle/ramp at Hasley Canyon, and would actively work against any added traffic that this would cause not to mention how it would effect our neighborhood. We moved out here for clean air, less traffic and this is totally out of line.	Comments and opinions regarding this project have been noted.

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
June 23, 2000	David Tighe	Would not oppose the roundabout, but would not like another interchange at Sedona Way. Why not another interchange at Hillcrest and an elementary school on the property at The Old Road and Hasley Canyon?	Comments and opinions regarding this project have been noted.
June 26, 2000	Tom Picking	Does not want a freeway interchange at the end of Sedona. The additional traffic on Firebrand and Sequaro would be terrible. Wait until interchanges at SR-126 are complete and the new houses are developed before making changes at Sedona. Traffic studies need to be required before these decisions are made.	Comments and opinions regarding this project have been noted. Traffic studies have been performed for both the I-5/Hasley Canyon Road and SR-126/Commerce Center Drive interchanges, see Sections 1.2, 3.14 and 5.13.
August 6, 2000	Tim Trotter	North Bluffs residents agree the on/off ramp needs to be further up the road at Hillcrest. Why congest and clog Saguaro and Sedona when much more traffic will be coming from Hillcrest. This will probably cost Caltrans more.	Comment noted.
August 11, 2000	Barry Witler, County of Los Angeles		In response to comment posted by Tim Trotter: “The ramps cannot be placed at Hillcrest because the spacing between the freeway and The Old Road will not allow for the safe design of the ramps. However, even if the spacing was ok, Caltrans would not allow it for two reasons: 1) By far, the greater portion of the demand to use the interchange will come from residential units in and around Hasley Canyon Road and Commerce Center traffic. 2) Caltrans does not allow for the different movements of an interchange to be separated by a great distance as suggested that would occur if the southbound ramps could be placed at Hillcrest. They consider it to be confusing to motorists and that it would place unnecessary traffic on local roads (along The Old Road). The full interchange could not be moved to Hillcrest since it could not be built on the west side as discussed due to lack of separation and on the east side because of the floodway. Also, the demand is primarily at Hasley.”

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
July 2, 2000	Tom Picking	Does not see a discussion of increased traffic on Firebrand, and does not understand why the original residents must suffer in order to make a new developer happy. Make the developer put in the new streets necessary to accommodate the new houses, don't use our streets!	Sections 3.14 and 5.13 discuss traffic and the transportation system within the proposed project area.
July 5, 2000	Philip Mazzeo, Councilman	Wants to clarify the poll question, saying that the poll is asking which alternative you prefer, not a project or not and that both alternatives include the ramps at Sedona. Voting is overwhelmingly against the roundabout. Just wanted to make sure that everyone understands that one or the other will be built and that this poll only asks which one you prefer.	Comment noted.
July 10, 2000	Debbie Modlin	A vote against the roundabout in the poll is a yes vote to a nine lane signalized intersection at Hasley and The Old Road. The poll is not asking if you want the roundabout or no change at all. Both options have on/off ramps at Sedona.	Comment noted.
July 10, 2000	Webmaster		Response to Debbie Modlin comment: "Actually there are no trick questions or surveys involved here. A no or a yes vote doesn't mean the opposite occurs, it doesn't mean that the Department of Public Works is going to do anything differently either. ...Other than community awareness, a place where townspeople can share their opinions, and hopefully enlightenment for the decision makers, there is nothing official at all about these surveys. Road decisions are made at state and county levels, sometimes without input from communities, and usually to the dislike of the people affected by those decisions. The Town Council just wants their neighbors to be aware of events affecting Castaic, some of which the Council has no control over either..."

<b>TABLE 6-2 Public Comments Posted on Website (<a href="http://www.castaic.org">www.castaic.org</a>)</b>			
<b>Comment Date</b>	<b>Name</b>	<b>Comment</b>	<b>Response</b>
August 23, 2000	J. Neiman	What is the final decision regarding new hook ramps into North Bluffs? Has it been approved? What were the results of the poll?	No decision has been made regarding the alternatives for this project. Public input, from circulation and a formal public hearing involving Caltrans, will be incorporated into the Final Environmental Document and then used to choose a project alternative.
August 23, 2000	Stacey Gordon		Response to J. Neiman: There has been no final decision on the hook ramp or the eventual interchange design. The next step in the process will be the Caltrans meeting. The poll was flawed, very few poll respondents offered an opinion for or against either alternative; however sentiment was overwhelmingly against the hook ramps, a feature of both alternatives
June 26, 2000	J.E. Yokers	Has the order of construction been determined yet regarding the Hasley/Old Road intersection, and the Sedona on/off ramp? Or is it still too early?	Constructing phasing (i.e., the order of construction for a particular project) has not been determined at this time. Construction phasing will be determined during the Plans, Specifications, and Estimates phase of the project.
August 16, 2000	J.E. Yokers	Are there plans for a new traffic impact study for Firebrand/Saquaro with regard to the addition of the Sedona on/off ramp?	Sections 3.14 and 5.13 discuss traffic and the transportation system within the proposed project area. Further traffic studies may be necessary to examine these additional concerns.

# Section 7

## List of Preparers

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- CH2M HILL (Prime)
  - Jamal Salman — Project Manager
  - Jeff Bingham — IS/EA Manager
  - Karen DiCarlo — IS/EA Task Leader
  - Gene Strojek — Project Engineer
  - John Castleberry — Task Leader, Air Quality Analysis
  - Keith McGregor — Air Quality Analyst
  - Farshad Farhang — Task Leader, Noise Analysis
  - Earl Byron — Task Leader, Water Resources Analysis
  - Michael Han — Floodplain Analyst
  - Daniela Pappada - Environmental Planner
- Bon Terra Consulting (Subconsultant)
  - Ann Johnston - Biological Survey Project Manager
  - Sandra Leatherman - Senior Biologist, Vegetation Mapping and Plant Survey
  - Amber Oneal - Ecologist, Vegetation Mapping and Plant/Wildlife Survey
  - Mike Couffer - Ecologist, Wildlife Survey
- Greenwood & Associates (Subconsultant)
  - John Foster - ASR/HASR Project Manager
  - James Schmidt - Lead Archaeological Surveyor
  - Dana Slawson - Lead Historic Architecture Surveyor

# Section 8

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