

Simpson Lane Intersection Project

State Route 1 in Mendocino County

01-MEN 1-59.0 to 59.5

EA: 01-48020

Focused Initial Study with Negative Declaration



Prepared by the
State of California Department of Transportation

May 2009



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SCH:
01-MEN-1-59.0/59.5
EA 01-480200

Simpson Lane Intersection Project

01-MEN-1-59.0/59.5
EA: 01-48020

FOCUSED INITIAL STUDY with Proposed Negative Declaration

Submitted Pursuant to: (State) Division 13, California Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

9-15-08

Date of Approval

Susan D. Bauer

for

John D Webb
Chief, Office of Environmental Services - South
North Region Environmental Planning
California Department of Transportation

Negative Declaration
Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to upgrade the existing intersection at State Route (SR) 1 and Simpson Lane. The project is located in the unincorporated area of Mendocino County south of the Fort Bragg city limits.

The project proposes a multi-lane roundabout. The roundabout would be elliptical in shape; the approximate dimensions would be 140 feet (ft) by 180 ft from the outer edge of traveled way to the opposite outer edge of traveled way. This alternative would require the acquisition of right-of-way, but no business or residential relocations.

Determination

Caltrans has prepared an Initial Study for this project and has determined that the project would not have significant impacts on the environment for the following reasons:

- The proposed project will have no impacts on biological resources, agricultural resources, air quality, cultural resources, geology/soils, land use/planning, mineral resources, noise levels, population/housing, public services, visual quality, recreation, transportation/traffic, communities, public services, and utilities.
- The proposed project will have less than significant impacts on hydrology/water.
- The project will incorporate measures to have less than significant impacts to the environment from hazardous waste. These measures are:
 - The contractor will contain any wastewater in above ground tanks and dispose of it off-site at an approved facility.
 - The contractor will provide a lead compliance plan; soil-containing ADL will receive the appropriate level of special handling during construction.

for Susan D. Bauer
John Webb
Chief, Office of Environmental Services - South
California Department of Transportation

5/13/09
Date

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Initial Study

Project Title

Simpson Lane Intersection Project

Lead Agency Name, Address and Contact Person

California Department of Transportation
703 B Street
Marysville 95901
Sandra Rosas, Chief
Office of Environmental Management-2
(530) 741-4041

Project Location

The proposed project is located in the unincorporated area of Mendocino County south of Fort Bragg at the intersection of Simpson Lane and State Route (SR) 1, extending from Post Mile (PM) 59.0 to 59.5. Refer to project Location Map (page 5), Vicinity Map (page 6), and Simpson Lane & State Route 1 Intersection Map (page 7), and Environmental Study Limits Map (page 8).

Project Sponsor's Name and Address

California Department of Transportation
Sandra Rosas, Chief
Environmental Management-M2
703 B St
Marysville, CA 95901

PURPOSE AND NEED

The purpose of the project is to enhance safety and reduce travel delays at the intersection of SR 1 and Simpson Lane. An engineering study has indicated that installing a traffic signal, or a roundabout, would improve the overall safety and operation of the intersection. The intersection currently experiences heavy left and right turn movements, which cause lengthy delays for the traveling public. Local residents have also expressed concerns about the safety associated with the congestion at the intersection.

PROJECT DESCRIPTION

The California Department of Transportation (Caltrans) proposes to upgrade the existing intersection of SR 1 and Simpson Lane. The existing SR within the project area is a conventional multilane highway. At the intersection, the highway consists of one northbound lane, one southbound lane, and a two-way left-turn lane. During construction, southbound traffic would be detoured to Old Coast Highway. Old Coast Highway is depicted on the map on page 7.

ALTERNATIVES CONSIDERED

Two alternatives, a multi-lane roundabout and a signal, were studied and discussed in the Initial Study (IS), which, was circulated for public review. After the public circulation period, all comments were reviewed. After thorough review, the roundabout alternative was selected. See Appendix A through D for the public comments submitted during the public comment period and Caltrans responses. Caltrans has made the final determination as to the project's effect on the environment. Table 1 below provides a comparison of the two alternatives and indicates that the benefits of the roundabout alternative exceed those of the signal alternative.

SELECTED ALTERNATIVE

Alternative 1 - Roundabout

The roundabout alternative would include multiple lanes (see page 9) in the area of the intersection; beyond the intersection, the highway would taper back to one lane in each direction with a two-way left-turn lane. The roundabout would be elliptical in shape. The approximate dimensions would be 140 feet (ft) by 180 ft from the outer edge of traveled way to the opposite outer edge of traveled way. Shared-use paths, or sidewalks with marked crossings would be provided for use by both pedestrians and bicyclists. Safety lighting will be installed to maintain operations and safety during nighttime hours. This alternative would require the acquisition of right-of-way, but no business or residential relocations would be required. The County of Mendocino is sharing the project costs. The City of Fort Bragg has requested that Caltrans select the safest alternative. The roundabout has been selected and has the following benefits.

Benefits of the Roundabout Alternative

The benefits of the roundabout outweigh those of the signal alternative. The roundabout's benefits include: safer traffic operations, less traffic delay at each turn on and off the highway, fewer environmental impacts and fewer environmental permits required, lower project development and permit costs, and fewer greenhouse gas emissions.

The roundabout is a safer alternative due to reduced vehicle speeds, similar speeds between circulating and entering traffic, and the virtual elimination of broadside and head-on collisions. The traffic flow can be compared to the movement of traffic merging onto a highway onramp. Thus, vehicles would never experience broadside or head-on collisions. For traffic delays, the roundabout has less delay (wait time) than the signal and allows traffic to move at consistent speeds, eliminating the stop-and-go movement characteristic of a signal design. Table 5 indicates the delay times, which are less for the roundabout design.

Fewer environmental impacts would result from the roundabout. Environmental resources including waters and riparian habitat would be impacted by the signal alternative but not by the roundabout. Fewer environmental permits would be required. The roundabout would require one permit, a Coastal Development Permit (CDP) which would cost \$2,500. Possible additional impacts may result from utility relocation requiring permitting; however, Caltrans will work with the utility companies to avoid or minimize any impacts. For the signal alternative, four permits would be required: a Coastal Development Permit (CDP), a 1602 permit, a 401 permit, and a 404 permit. The four permits would total \$14,300. Additionally, mitigation measures and replanting would be required to satisfy permit requirements, thus incurring further costs. The permits are discussed in further detail in the biological section of this document on page 26.

Caltrans has calculated the cost of each alternative. The roundabout alternative would cost less than the signal. The total cost is \$4,725,500 for the roundabout as compared to \$4,823,700 for the signal alternative. The costs include: maintenance, permits, construction, support cost, and right of way. See Table 1 below.

With respect to greenhouse gas emissions, the roundabout would reduce stop-and-go traffic patterns and reduce idle time, therefore producing fewer greenhouse emissions than the signal.

ALTERNATIVE CONSIDERED AND WITHDRAWN

Alternative 2 - Signalization

Alternative 2 would install a signal at the intersection and construct an additional northbound lane with 8- ft shoulders. Simpson Lane would also be widened to the south to add an additional westbound lane and 4 ft-wide shoulders in the area of the intersection. However, the highway would taper back to one-lane in each direction beyond the intersection (see page 8). This alternative would require the acquisition of right-of-way, but no business or residential relocations. This alternative has the potential to impact biological resources including waters of the US, and coastal Essential Sensitive Habitat (ESH). In contrast, the roundabout alternative does not have the potential to impact waters of the US or ESH habitat. Furthermore, the permit costs for this alternative far exceed the costs for the roundabout alternative.

Table 1 – Roundabout and Signal Impacts and Cost Comparison

ALTERNATIVES	TOTAL COSTS	BIOLOGICAL IMPACTS	GREENHOUSE EMISSIONS	AERIALY DEPOSITED LEAD (ADL) WITHIN SOIL ALONG SR 1	AVERAGE DELAY PER VEHICLE IN SECONDS – PROJECTED FOR 2028	SAFETY	PERMITS
Roundabout	\$4,725,500 million	None	Eliminates idling & stop-and-go traffic, thereby contributing fewer greenhouse gases	Less disturbed soil that contains ADL and may not require special handling	Delays are shorter than for the signal at every turning point on and off the SR	Safer than signal; eliminates t-bone, and head-on collisions; reduces severity of accidents	\$2,500 for the CDP permit required; see Table 2 for detailed information
Signal	4,823,700 million	Potential impacts to Essential Sensitive Habitat Areas (ESHA), waters, and riparian habitat	Idle time at the stop signal and stop-and-go traffic patterns contribute to greenhouse gases	More disturbed soil that contains ADL and requires special handling	Delays are longer than for the roundabout at every turning point on and off the SR	Enhanced safety, but does not eliminate potential for t-bone and head-on collisions	\$14,300 total for 4 permits required; see Table 2 for detail information

Surrounding Land Uses and Setting

The project area is within a coastal area, approximately 1 mile from public beach access. The land use is a combination of commercial and residential. Numerous businesses are located on both sides of the highway north of Simpson Lane and on the east side of the highway south of Simpson Lane. A gas station is the primary business on the southeast corner of the intersection. Residences are situated further south of the gas station.

The segment of the SR 1 is not a designated scenic highway; however, it is eligible for “scenic highway designation”.

Permits and Approvals Required

Alternative 1 - Roundabout

For the selected alternative, a Coastal Development Permit (CDP) is required. A permit application is in process for approval by the Mendocino County Planning Department.

Alternative 2 - Signalization

This alternative would have required permits from the following agencies:

- United States Army Corps of Engineers (USACE): Clean Water Act of 1977, Section 404 Permit
- Regional Water Quality Control Board: Clean Water Act of 1977, Section 401 certification
- California Department of Fish and Game: California Fish and Game Code 1602 Streambed Alteration Agreement
- Coastal Development Permit (CDP): Coastal Zone Management Act (CZMA) Zoning

The proposed project area is zoned as rural residential and commercial. The project is consistent with the current zoning.