Route 116 Stage Gulch Road Curve Improvement and Realignment Project
SONOMA COUNTY, CALIFORNIA
DISTRICT 4 – SON – 116, KP 67.3/71.9 (PM 41.8/44.7)
Expenditure Authorization 283800

Initial Study with Mitigated Negative Declaration

July 2005

Prepared by the State of California Department of Transportation
MITIGATED NEGATIVE DECLARATION
Pursuant to: Division 13, Public Resources Code

Project Description
The California Department of Transportation (Department) proposes to widen the shoulders of State Route 116 to standard widths between Adobe Road and Arnold Drive, and improve some nonstandard curves. The radius of horizontal curves will be increased at least to the standard for this type of facility (two lane highway). Improving the roadway just west of Transfer Station Road (aka County Dump Road) without impinging on an environmentally-sensitive area will necessitate realigning the highway for about 1.2 km (0.75 m) in that area. The existing roadway near Transfer Station Road will be realigned to avoid an environmentally sensitive area. Several retaining walls are proposed to minimize the need to acquire additional state right-of-way.

Determination
The Department has prepared an Initial Study for this project, and following public review, has determined from this study that the proposed project would not have a significant impact on the environment for the following reason:

The proposed project would have no effect on air, noise, hazardous materials, growth, public utilities, or cultural resources.

The proposed project would have no significantly adverse effect on biological resources or on water quality because the following mitigation measures would reduce potential effects to beneath the level of significance:

- Creek restoration to mitigate loss of critical habitat for threatened and endangered species; and
- Implementation of Best Management Practices to protect water quality, including bioswales and retention ponds.

The remaining resources located within the project area are expected to be affected; however, that effect is not expected to be significant.

Susan Chang
Deputy District Director of Environmental Planning
and Engineering
California Department of Transportation - District 4

7/26/2005
Date
Route 116 Stage Gulch Road Curve Improvement and Realignment Project, KP 67.3 (PM 41.8) to KP 71.9 (PM 44.7), Sonoma County, California

INITIAL STUDY with Mitigated Negative Declaration

Submitted Pursuant to: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Susan Chang
Deputy District Director
Division of Environmental Planning and Engineering
California Department of Transportation - District 04

7/28/2005
Date of Approval
# TABLE OF CONTENTS

Cover Sheet ........................................................................ i  
Title Page ........................................................................ ii  
Mitigated Negative Declaration ........................................... iii  
Table of Contents ................................................................. iv  
List of Maps, Figures and Photos ............................................ vii

## 1 CHAPTER 1 PROJECT PURPOSE AND NEED ................. 1-1

1.1 INTRODUCTION ............................................................ 1-1  
  1.1.1 Scope and Project Location ........................................... 1-1  
  1.1.1.1 Purpose ................................................................... 1-1  
  1.1.1.2 Need ....................................................................... 1-1  
  1.1.1.3 Traffic Safety Context ............................................. 1-4  
  1.1.1.4 Existing Facilities .................................................... 1-4  

1.2 PROJECT DESCRIPTION ................................................ 1-6  
  1.2.1 Proposed Project ...................................................... 1-6  

1.3 Alternatives .................................................................... 1-6

## 2 CHAPTER 2 AFFECTED ENVIRONMENT ....................... 2-1

2.1 FARMLANDS .................................................................. 2-1  
  2.1.1 Regulatory Setting ..................................................... 2-1  
  2.1.2 Affected Environment ............................................... 2-1  
  2.1.3 Project Impacts ......................................................... 2-1  

2.2 COMMUNITY IMPACTS .................................................. 2-1  
  2.2.1 Affected Environment ............................................... 2-1  
  2.2.2 Project Impacts ......................................................... 2-2  

2.3 UTILITIES / EMERGENCY SERVICES ............................ 2-2  
  2.3.1 Utilities .................................................................... 2-2  
  2.3.1.1 Affected Environment ............................................. 2-2  
  2.3.1.2 Project Impacts ....................................................... 2-2  
  2.3.2 Emergency Services ................................................ 2-2  
  2.3.2.1 Affected Environment ............................................. 2-2  
  2.3.2.2 Project Impacts ....................................................... 2-2  
  2.3.2.3 Mitigation Measures ............................................. 2-3  

2.4 TRAFFIC & TRANSPORTATION ...................................... 2-3  
  2.4.1 Affected Environment ............................................... 2-3  
  2.4.2 Environmental Impacts ............................................. 2-3  

2.5 VISUAL / AESTHETICS .................................................. 2-3  
  2.5.1 Affected Environment ............................................... 2-3  
  2.5.2 Project Impacts ......................................................... 2-4  
  2.5.3 Mitigation Measures ................................................. 2-7
# Table of Contents

2.6 CULTURAL RESOURCES ........................................... 2-7
   2.6.1 Regulatory Setting .......................................... 2-7
   2.6.2 Affected Environment ...................................... 2-8
   2.6.3 Project Impacts ............................................ 2-8

2.7 HYDROLOGY AND FLOODPLAIN .................................. 2-8
   2.7.1 Affected Environment ...................................... 2-8
   2.7.2 Project Impacts ............................................ 2-9
   2.7.3 Mitigation Measures ....................................... 2-9

2.8 WATER QUALITY AND STORM WATER RUNOFF .................. 2-9
   2.8.1 Regulatory Setting .......................................... 2-9
   2.8.2 Affected Environment ...................................... 2-9
   2.8.3 Project Impacts ............................................ 2-10
   2.8.4 Mitigation Measures ....................................... 2-10

2.9 GEOLOGY / SOILS / SEISMIC / TOPOGRAPHY ................... 2-11
   2.9.1 TOPOGRAPHY AND SEISMICITY ............................. 2-12
   2.9.1.1 Affected Environment .................................. 2-12
   2.9.1.2 Impacts and Protective Measures ..................... 2-13
   2.9.2 SITE GEOLOGY AND SOILS .................................. 2-13
   2.9.2.1 Affected Environment .................................. 2-13
   2.9.2.2 Impacts and Protective Features ..................... 2-14

2.10 BIOLOGICAL ENVIRONMENT ..................................... 2-14
   2.10.1 NATURAL COMMUNITIES .................................... 2-14
   2.10.1.1 Affected Environment .................................. 2-15
   2.10.1.2 Project Impacts ......................................... 2-16
   2.10.1.3 Minimization and Mitigation Measures .............. 2-16
   2.10.2 WETLANDS AND OTHER WATERS ............................ 2-17
   2.10.2.1 Regulatory Setting ..................................... 2-17
   2.10.2.2 Affected Environment .................................. 2-17
   2.10.2.3 Project Impacts ......................................... 2-17
   2.10.2.4 Minimization and Mitigation Measures .............. 2-17
   2.10.3 ANIMAL SPECIES ........................................... 2-18
   2.10.3.1 Regulatory Setting ..................................... 2-18
   2.10.3.2 Affected Environment .................................. 2-18
   2.10.3.3 Project Impacts ......................................... 2-18
   2.10.3.4 Minimization and Mitigation Measures .............. 2-19
   2.10.4 THREATENED AND ENDANGERED SPECIES ................ 2-19
   2.10.4.1 Regulatory Setting ..................................... 2-19
   2.10.4.2 Affected Environment .................................. 2-20
   2.10.4.3 Project Impacts ......................................... 2-23
   2.10.4.4 Avoidance and Minimization Measures .............. 2-23

2.11 TEMPORARY CONSTRUCTION IMPACTS ......................... 2-24
   2.11.1 Affected Environment .................................... 2-24
   2.11.2 Project Impacts ........................................... 2-24
   2.11.3 Mitigation Measures ..................................... 2-24

2.12 CUMULATIVE IMPACTS .......................................... 2-25
   2.12.1 Regulatory Setting ........................................ 2-25
   2.12.2 Affected Environment .................................... 2-25
   2.12.3 Project Impacts and Mitigation Measures .............. 2-25
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CHAPTER 3 AGENCY COORDINATION AND PUBLIC INVOLVEMENT</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1</td>
<td>CONSULTATION AND COORDINATION WITH PUBLIC AGENCIES</td>
<td>3-1</td>
</tr>
<tr>
<td>3.2</td>
<td>PUBLIC INVOLVEMENT</td>
<td>3-2</td>
</tr>
<tr>
<td>3.3</td>
<td>AGENCY CORRESPONDENCE</td>
<td>3-14</td>
</tr>
<tr>
<td>4</td>
<td>CHAPTER 4 LIST OF PREPARERS</td>
<td>4-1</td>
</tr>
<tr>
<td>5</td>
<td>CHAPTER 5 DISTRIBUTION LIST</td>
<td>4-1</td>
</tr>
<tr>
<td>6</td>
<td>CHAPTER 6 REFERENCES</td>
<td>4-1</td>
</tr>
<tr>
<td></td>
<td>APPENDIX</td>
<td>4-1</td>
</tr>
</tbody>
</table>
## List of Figures, Maps and Photos

**Figure A: Project Plans**
- 1 Overview ........................................... 7-2
- 2 Overview ........................................... 7-3
- 3 Layout 5 Close-up .................................. 7-4
- 4 Layout 6 Close-up .................................. 7-5
- 5 Layout 7 Close-up .................................. 7-6
- 6 Layout 8 Close-up .................................. 7-7

**Figure B: Existing and Simulated Conditions Before and After Proposed Project**
- 1 Photo of Existing Conditions on Highway 116 ........................................... 2-5
- 2 Photo simulation of proposed retaining wall at same location .................. 2-5

**Figure C: Existing and Simulated Conditions Before and After Proposed Project**
- 1 Photo of Existing Conditions on Highway 116 ........................................... 2-5
- 2 Photo simulation of proposed retaining wall at same location .................. 2-5

**Figure D: Existing and Simulated Conditions Before and After Proposed Project**
- 1 Existing Highway 116 looking eastward just west of Watmaugh Road ........ 2-6
- 2 Photo simulation of proposed conditions at same location ................... 2-6

**Figure E: County Map of Sonoma showing the approximate location of the Sonoma 116 Curve Improvement and Widening Project and the proximity of the 13 historical sightings of California red-legged frog in the county as indicated by the California Natural Diversity Database (CNDDB, September 26, 2003) and Caltrans ........................................... 2-22

**Photo 1:** Mature California red-legged frog observed by Caltrans staff during field review immediately north of Transfer Station Road in Champlin Creek (August 27, 2004) ........................................... 2-21

**Map 1:** Project Vicinity ........................................... 1-2

**Map 2:** Project Location ........................................... 1-3