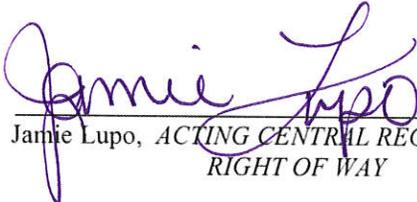


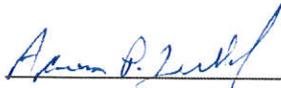
**Project Study Report-Project Report  
To  
Request Programming in the 2014 SHOPP  
And  
For Project Approval**

On Route 101  
Between Walnut Avenue Overcrossing  
And 2.4 miles north of North Greenfield Overcrossing

I have reviewed the right of way information contained in this report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

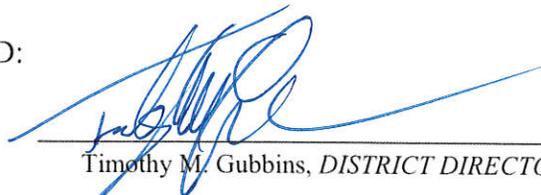
  
\_\_\_\_\_  
Jamie Lupo, *ACTING CENTRAL REGION DIVISION CHIEF,  
RIGHT OF WAY*

APPROVAL RECOMMENDED:

  
\_\_\_\_\_  
Aaron Henkel, *PROJECT MANAGER*

  
\_\_\_\_\_  
Debra Larson, *PROGRAM MANAGER*

APPROVED:

  
\_\_\_\_\_  
Timothy M. Gubbins, *DISTRICT DIRECTOR*

6/18/15  
\_\_\_\_\_  
DATE

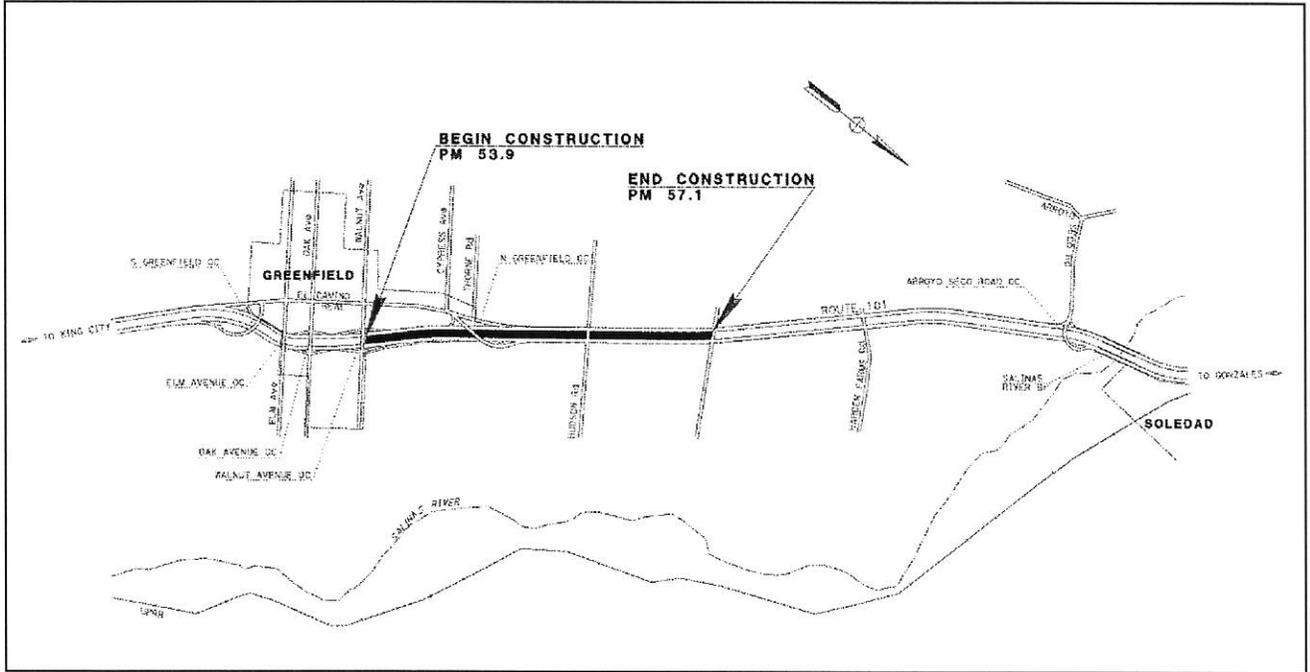
This project study report-project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

*Susan Lozon*  
REGISTERED CIVIL ENGINEER

5/8/15  
DATE



# Vicinity Map



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## 1. INTRODUCTION

### Project Description:

This project proposes to construct a median barrier to prevent cross median collisions in Monterey County North of Greenfield on Route 101 from Walnut Avenue Overcrossing to 2.4 miles north of North Greenfield Overcrossing. The scope of work includes inside shoulder rumble strip with shoulder widening, constructing a median barrier, and modifying drainage inlets. Right of way costs are estimated for utility verification. This project is a Safety Improvements (201.010) Project.

<b>Project Limits</b>	05-MON-101-PM 53.9/57.1	
<b>Number of Alternatives</b>	2	
<b>Programmable Project Alternative</b>	1	
	<b>Current Cost Estimate:</b>	<b>Escalated Cost Estimate:</b>
<b>Capital Outlay Support</b>	-	\$2,326,000
<b>Capital Outlay Construction</b>	\$3,800,100	\$4,190,000
<b>Capital Outlay Right-of-Way</b>	\$3,750	\$5,000
<b>Funding Source</b>	SHOPP / 201.010	
<b>Funding Year</b>	16/17	
<b>Type of Facility</b>	4-lane freeway, 4-lane expressway	
<b>Number of Structures</b>	0	
<b>SHOPP Project Output</b>	32 collisions reduced	
<b>Environmental Determination or Document</b>	CE	
<b>Legal Description</b>	In Monterey County, in and near Greenfield on Route 101 from Walnut Avenue Overcrossing to 2.4 miles north of North Greenfield Overcrossing	
<b>Project Development Category</b>	5	

## 2. RECOMMENDATION

It is recommended that this Project Study Report/Project Report (PSR/PR) be approved using the preferred alternative and that the project proceed to the design phase after amending into the State Highway Operation and Protection Program (SHOPP).

## 3. BACKGROUND

### A. Project History:

This proposed safety improvement project was originated by the District 5 Traffic

Safety Branch when this location was identified as needing median barrier through the 2012 Multilane Cross Median Collision Report. The 2012 Multilane Cross Median Collision Report is an analysis tool used to identify and investigate locations that may warrant median barrier or other countermeasures. A TASAS Selective Record Retrieval (TSAR) report for all collisions in the section of Route 101 between PM 53.9 and PM 57.1 for the five-year period of January 1, 2007, to December 31, 2011, has identified a total of 90 collisions. Twenty percent of the collisions occurred beyond shoulder drivers left or beyond median or stripe-left. This highway segment met the criteria for the Table A - Freeway Volume-Median Width Study Warrant.

The Headquarters Chief for Caltrans Office of Performance, Highway Safety and Operational Improvement program has concurred with the recommendation to initiate this project per memorandum dated, May 21, 2014.

This project was initiated on July 16, 2014 and is sponsored by District 5 Traffic Safety under the 201.010 Program as a Safety Improvements project.

**B. Existing Facility:**

In Monterey County, California, Route 101 is a four-lane north-south highway that is part of the Freeway and Expressway System. Within the project limits, Route 101 is freeway from post mile 53.9 to 55.9 with a 46-foot to 44-foot unpaved median and expressway from post mile 55.9 to 57.1 with a 44-foot unpaved median. The existing cross section consists of 12 foot lanes, 8 foot outside shoulders and 2 foot to 5 foot inside shoulders. The posted speed limit is 65 mph and the design speed within the project limits is 65 mph.

The terrain within the project limits is relatively flat and predominantly agricultural. Some mixed suburban use borders the project within the city limits of Greenfield. There are two paved median crossovers within the project limits allowing full turn movements.

Recently a project was completed through this section of Route 101 improving the acceleration lanes and left turn pockets at select intersections. Improvements at the Hudson Rd (PM 55.94) crossover consisted of adding acceleration lanes for both north and southbound directions and extending the left turn lanes. Drainage improvements were also completed by modifying and adding drainage inlets to the existing systems.

Five other Caltrans projects in the area are scheduled to be completed prior to the start of the proposed project. Projects EA 05-1A730 (Mon-101-49.8-55.3) and EA 05-1F690 (Mon-101-55.2-67) are Capital Preventative Maintenance projects, which intend to resurface the route. Project EA 05-1E050 (Mon-101-51.2-61.1) is a 201.015 clean up the roadside environment, collision severity reduction project that will implement drainage and clear recovery zone improvements on the outside shoulders. Project EA 05-1E060 (Mon-101-47.6-53.9) is a Safety Improvement

project which will construct a concrete median barrier, widen the inside shoulder to 5 feet, and place rumble strips. Project EA 05-1C330 (Mon-101-57.1-60.8) is also a Safety Improvement project which will construct a high tension cable median barrier, widen the inside shoulder to 5 feet, and place rumble strips.

There are several drainage culverts that cross the route as well as drainage inlets in the median. This section of highway is not within the 100-year flood plain.

#### **4. PURPOSE AND NEED**

**Purpose:**

To reduce the number and severity of collisions within the project limits.

**Need:**

A need for this project was identified through the 2012 Multilane Cross Median Collision Monitoring Report by District 5 Traffic Safety. This highway segment meets the Freeway Volume-Median Width Study Warrant.

#### **5. DEFICIENCIES**

A TSAR Accident Summary, for all collisions, for the five year period of January 1, 2007, to December 31, 2011, has identified a total of 90 collisions. Of these collisions, 20% were beyond median or stripe-left or beyond shoulder drivers left. This highway segment meets the Freeway Volume-Median Width Study Warrant.

#### **6. CORRIDOR AND SYSTEM COORDINATION**

Within the project limits, Route 101 is four lane divided highway with a functional classification of Other Freeway or Expressway. The latest Transportation Concept Report (TCR) for Route 101 in District 5 designates this area as part of the Interregional Road System, the National Highway System and the National Truck Network. It is also part of the Strategic Highway Network (STRAHNET). Trucks make up 12% of the traffic flow. Additionally, this section of Route 101 is eligible to be part of the Scenic Highway System, and also considered a Focus Route and High Emphasis route.

There are no prohibitions to bicycle access from the North Greenfield Overcrossing to the end of the project. During construction, bicycle circulation must be accommodated.

The ultimate corridor concept for Route 101 in District 5 is freeway with capacity up to six lanes. This location is projected to maintain moderate to high levels of congestion into 2035. The proposed improvements are compatible with the TCR ultimate corridor concept of freeway conversion.

The Design Designation is a concise expression of the basic factors controlling the design of a given highway, as described in Topic 103 of the Highway Design Manual (HDM). The Design Designation for this project is shown below:

<u>Route 101 (PM 54.8/57.1)</u>	
ADT (Average Daily Traffic) (2013)	16,787
ADT (2017)	17,759
ADT (2027)	19,974
ADT (2037)	22,098
DHV (Design Hour Volume) (2013)	3,600
DHV (2017)	3,809
DHV (2027)	4,259
DHV (2037)	4,677
Traffic Index (10 Year)	12 (Outside Lanes), 7.5 (Shoulder)
Traffic Index (20 Year)	13.5 (Outside Lanes), 8.5 (Shoulder)
Traffic Index (40 Year)	14.5 (Outside Lanes), 9 (Shoulder)
D (% directional split in peak hour)	54.3%
T (% trucks in ADT)	11.7%

Note: Year 2013 volumes are estimated and published at the Traffic and Vehicle Data Systems Unit website.

## 7. ALTERNATIVES

### 7A. Viable Alternative

This alternative proposes to construct a median barrier on Route 101 from PM 53.9 to PM 57.1, widen inside shoulders to 5-feet and place rumble strip on the inside shoulders.

The work will consist of a Type 60 concrete barrier and southbound inside shoulder widening from PM 53.9 to the median opening near PM 55.9. Northbound shoulder widening will be from PM 53.9 to PM 55.2. High tension cable barrier and southbound shoulder widening is proposed from PM 56.0 to PM 57.1. The median barrier will conform to the existing concrete barrier at PM 53.9 and transition to a 17 feet offset from the edge of traveled way with paving to face of barrier.

The Traffic Manual Chapter 7 (January 2012) states that approval is required for the use of high tension cable barrier. Approval from the Deputy District Director of Maintenance and Operations, was acquired in June 2015.

Additional work will include grading, paving for the shoulder widening, inside shoulder rumble strip, concrete barrier, and concrete vegetation control for the cable barrier. Improvements will be made as necessary to drainage facilities to maintain drainage and to match finish grade. Existing thrie beam barrier and crash cushions will also be removed from around the bridge columns near PM 54.8.

No nonstandard features are proposed for this project.

### **7B. Rejected Alternative**

The rejected alternative is the “No Build” alternative. This alternative was rejected because it does not meet the purpose and need.

## **8. CONSIDERATIONS REQUIRING DISCUSSION**

### **8A. Hazardous Waste**

This project includes soil disturbance therefore aerially deposited lead (ADL) will need to be addressed. Soil in the area of excavation will be tested prior to construction to determine the lead concentration so that the excavated material may be handled in accordance with all applicable laws. A bid item for Lead Compliance Plan will be required for this project.

Include specifications for the proper management of treated wood waste (TWW) from the handling of thrie beam barrier wood posts and wood sign posts.

### **8B. Right of Way Issues**

No Right of Way acquisition or utility relocation will be required for this project. Underground utilities crossing the median will be positively located during the design phase so that they may be avoided during construction. The right of way data sheet of utilities reflects these costs (Attachment E).

### **8C. Rubberized Hot Mix Asphalt**

Rubberized Hot Mix Asphalt will be used to match the existing materials on the adjacent lanes and to meet the requirements of the Crumb Rubber Usage in Hot Mix Asphalt (HMA) Pavements memorandum dated February 10, 2015.

## **9. OTHER CONSIDERATIONS AS APPROPRIATE**

### **9A. Transportation Management Plan for Use During Construction**

Traffic control during construction will be handled by a traffic control system, changeable message signs, and construction area signs. Lane closures are anticipated during grading, paving, and striping, operations. (Attachment G)

**9B. Storm Water**

Per the attached Storm Water Data Report (SWDR), this project is not required to consider treatment Best Management Practices (BMP) or a Rapid Stream Stability Assessment (RSSA). A Water Pollution Control Program (WPCP) will be required for this project. (Attachment H).

**9C. Permits**

No Permits will be required for this project.

**9D. Other Projects**

There are three projects in the area that may have an effect on the configuration of the median prior to the construction of this proposed project. The proposed barrier will conform to the concrete barrier to be constructed under EA 05-1E060 which is scheduled to be completed September 2016.

**10. COMMUNITY INVOLVEMENT**

To date, public meetings have not been held and there has been no community involvement or outreach associated with this project.

Barrier aesthetics within the City of Greenfield are to match those previously agreed upon as noted for project EA 05-1E060.

**11. ENVIRONMENTAL DETERMINATION/DOCUMENT**

The proposed project has been determined to be Categorical Exempt (CE) under the California Environmental Quality Act (CEQA) and Categorical Excluded (CE) under the National Environmental Policy Act (NEPA). See Attachment F.

**12. FUNDING/PROGRAMMING**

The proposed project would be amended into the 2014 SHOPP to be funded by the Safety Improvements Program (201.010) for delivery in the 2016/17 fiscal year. It has been determined that this project is eligible for federal-aid funding.

### Capital Outlay Support and Project Estimates

Fund Source	Fiscal Year Estimate				
	2015/16	2016/17	2017/18	2018/19	Total
20.XX.201.010					
Component	In thousands of dollars (\$1,000)				
PA&ED Support	0	0	0	0	0
PS&E Support	1,030	0	0	0	1,030
Right-of-Way Support	56	0	0	0	56
Construction Support	0	1,240	0	0	1,240
Right-of-Way	0	5	0	0	5
Construction	0	4,190	0	0	4,190
<b>Total</b>	<b>1,086</b>	<b>5,435</b>	<b>0</b>	<b>0</b>	<b>6,521</b>

*Programming in the 2014 SHOPP 201.010. Support costs escalated 10% for the 15/16 year and 4% per year the remaining years. Capital Escalated 5% per year.*

The support/capital cost ratio is 55.5%.

### 13. SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	July 1, 2015
PA & ED	M200	July 1, 2015
PROJECT PS&E TO DOE	M377	October 25, 2016
RIGHT OF WAY CERTIFICATION	M410	October 12, 2016
READY TO LIST	M460	March 1, 2017
ADVERTISE	M480	June 16, 2017
AWARD	M495	August 21, 2017
APPROVE CONTRACT	M500	October 25, 2017
CONTRACT ACCEPTANCE	M600	October 24, 2018
END PROJECT	M800	April 28, 2020

### 14. RISKS

The Risk Register is a tool to help the Project Development Team (PDT) minimize surprises that could impede the successful delivery of the project through effective communication of risks throughout the project delivery process. However, the Risk Register cannot identify all risks in advance of the occurrence for a project, as some risks are unknown.

Risks associated with this project include future changes in the National Pollutant

Discharge Elimination System (NPDES) Permit requiring additional Best Management Practices (BMPs) to be added changing the scope and cost of the project. Other risks affecting cost and schedule include the extent of aerially deposited lead on the project, and the potential for drought conditions to affect the availability of water. Changes in scope may affect the cost and schedule due to impacts on other disciplines. A Risk Register (Attachment I) has been prepared by the PDT to assess, monitor, and respond to these and other identified risks that may occur throughout the life of the project.

## 15. FHWA COORDINATION

This project is considered to be an Assigned Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

## 16. PROJECT REVIEWS

Field Review		Date	4/24/15
District Program Advisor	Deb Larson	Date	4/21/15
Project Manager	Aaron Henkel	Date	4/20/15
District Safety Review	Mark Ballentine	Date	4/29/15
Constructability Review		Date	5/4/15
Michael Janzen, HQ Design Office of Project Support Engineer, concurs that this proposal would not be expected to correct or document nonstandard features outside of the median.		Date	4/28/15

## 17. PROJECT PERSONNEL

Aaron Henkel	Project Manager	(805) 549-3084
Steve Wyatt	Design Manager	(805) 549-3079
Susan Lozon	Project Engineer	(805) 594-6164
Michael Thomas	Environmental Planning	(805) 549-3023
Marshall Garcia	Right of Way	(805) 549-3471
Debra Larson	Traffic Safety Program Mgr.	(805) 549-3017
Mark Ballentine	Traffic Operations	(805) 549-3024
Bob Carr	Landscape Architecture	(805) 549-3083
Jo Jackson	Landscape Architecture	(805) 549-3001
Kathleen Jenkins	District Storm Water	(805) 549-3402
Chris Shaeffer	Utility Coordinator	(805) 549-3565

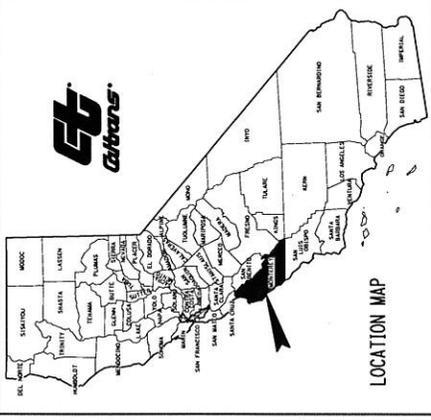
## **18. ATTACHMENTS**

- A. Location Map
- B. Preliminary Cross Section of Median Barrier
- C. Preliminary Layouts
- D. Project Study Report Cost Estimate
- E. Right of Way Data Sheet
- F. Environmental Analysis Report
- G. Traffic Management Plan
- H. Storm Water Data Report
- I. Risk Management Plan
- J. Distribution List

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PRELIMINARY PLANS FOR CONSTRUCTION ON  
 STATE HIGHWAY**  
 IN MONTEREY COUNTY  
 IN AND NEAR GREENFIELD  
 FROM WALNUT AVENUE OVERCROSSING  
 TO 2.4 MILES NORTH OF  
 NORTH GREENFIELD OVERCROSSING

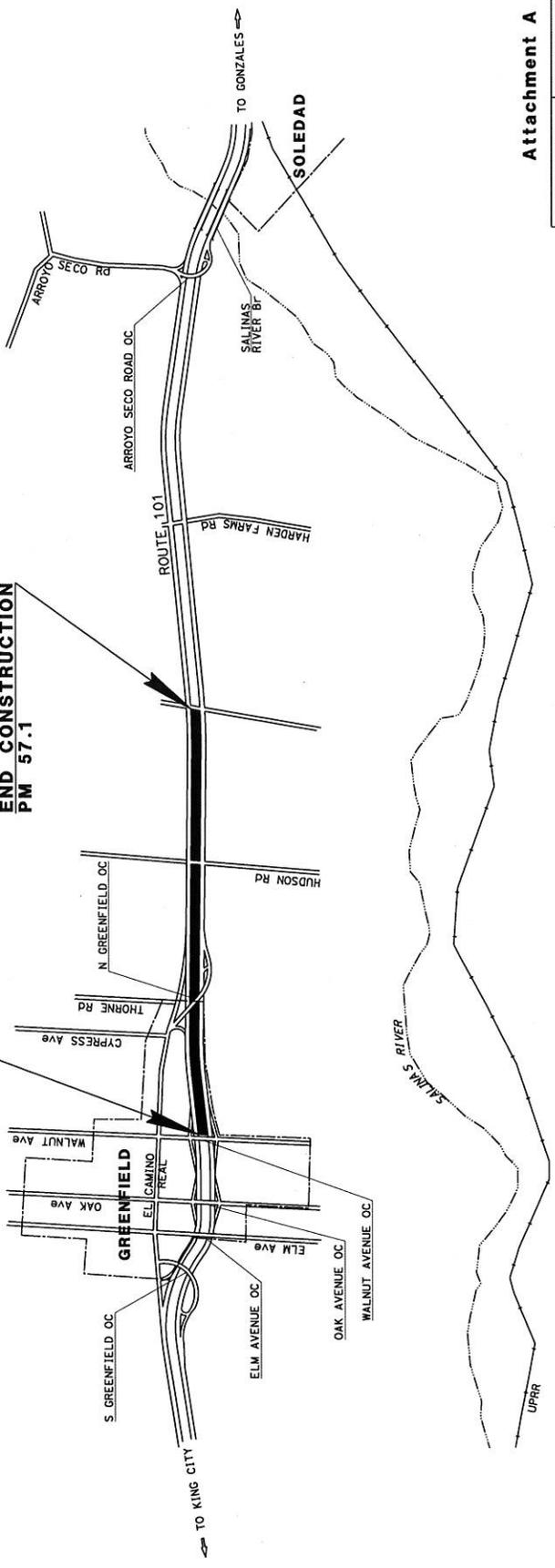
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

DIST	COUNTY	ROUTE	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
5	Mon	101	53.9/57.1		



**BEGIN CONSTRUCTION  
 PM 53.9**

**END CONSTRUCTION  
 PM 57.1**



**Attachment A**

CONTRACT NO.	05-1G380K
PROJECT ID	0515000007

UNIT 1450 PROJECT NUMBER & PHASE 0513000029K

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 DON FILE → Vicinity Map.dgn

RELATIVE BORDER SCALE  
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CALTRANS WEB SITE IS: [HTTP://WWW.DOT.CA.GOV/](http://www.dot.ca.gov/)

BORDER LAST REVISED 7/2/2010

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 TIME PLOTTED → 14:56

DESIGN ENGINEER	PROJECT MANAGER
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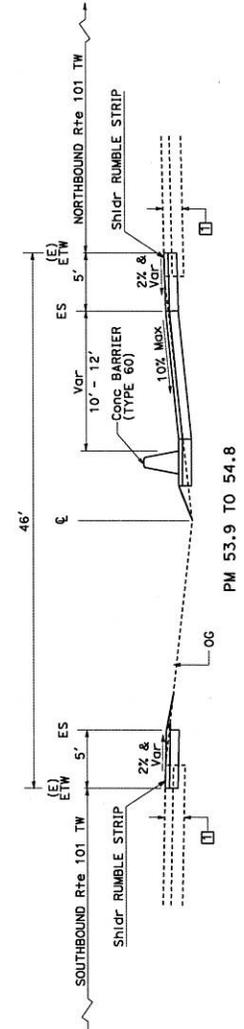
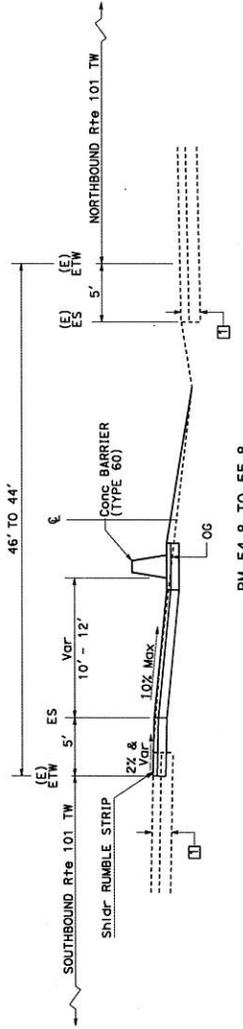
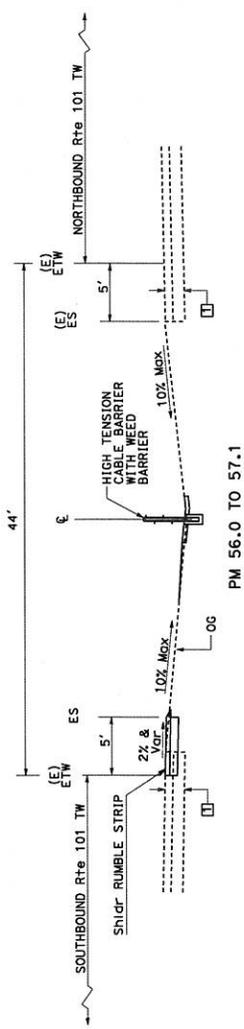
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5	Mon	101	53.9/57.1	NO. SHEETS

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_  
 THE STATE OF CALIFORNIA BY ITS OFFICERS  
 OF AGENCIES SHALL NOT BE RESPONSIBLE FOR  
 ERRORS OR OMISSIONS OF ANY KIND OR  
 CONSEQUENCES OF THIS PLAN SHEET.

**STRUCTURAL SECTIONS:**

- Exist AC
- Var AGGREGATE BASE

ROUTE 101  
 DESIGN DESIGNATION  
 ADT (2017) 17,759  
 ADT (2027) 19,979  
 DHV 2,315  
 ESAL 375,000  
 D 14.72  
 V 65 MPH  
 T120 13.5 (LANE), 8.5 (SHOULDER)



**PSR-PR  
 TYPICAL CROSS SECTIONS  
 X-1**

NO SCALE  
 Attachment B

PROJECT NUMBER & PHASE  
 UNIT 0000

RELATIVE BORDER SCALE  
 1/8" = 1'

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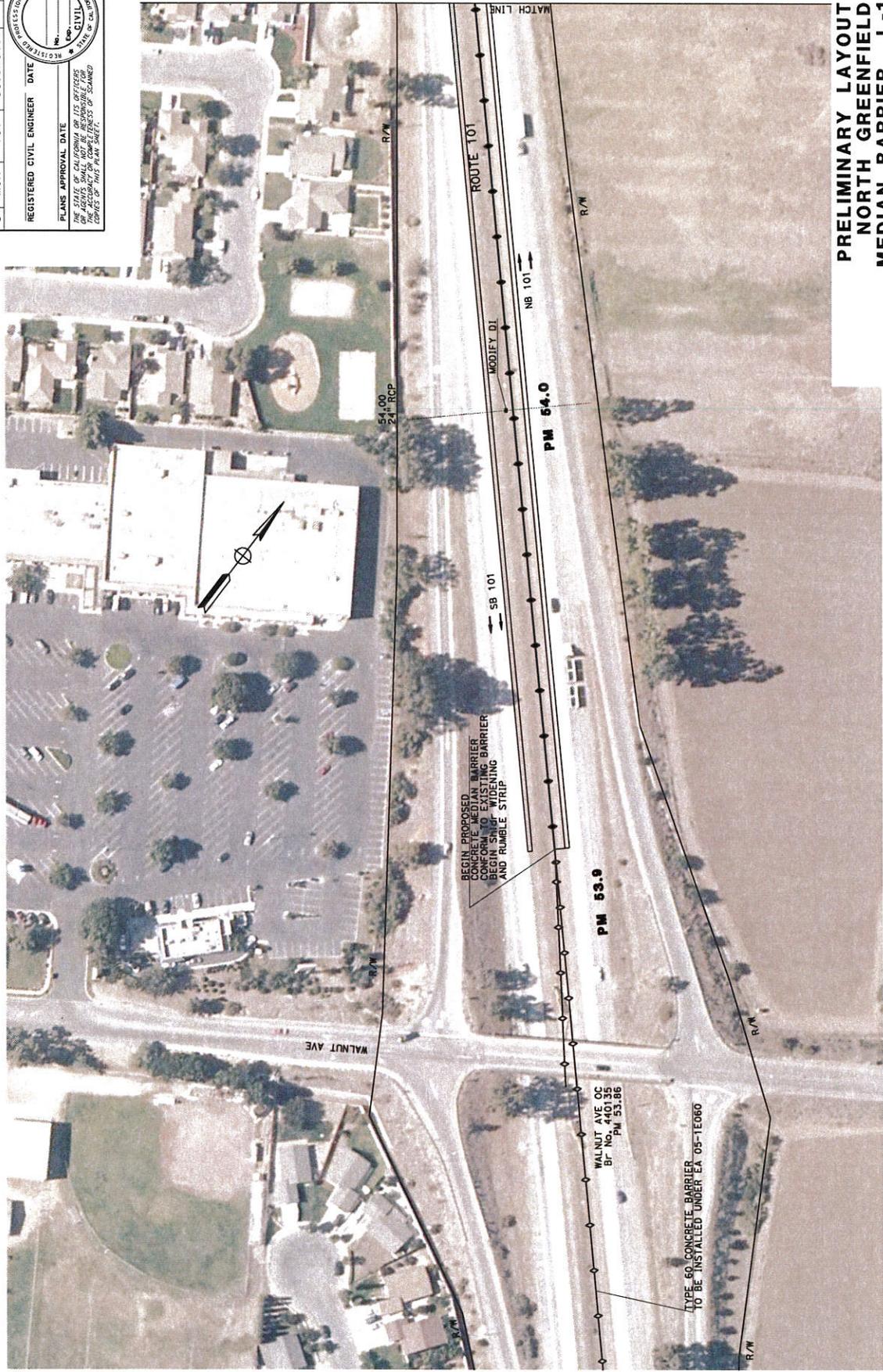
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED BY	DESIGNED BY	CHECKED BY	DATE REVISED	REVISED BY
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DIS#	COUNTY	ROUTE	SHEET ALLEYS	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
5	MON	101	53.9/57.1			



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE ACCURACY OR COMPLETENESS OF ANY  
 PORTION OF THIS PLAN SHEET.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-1**

SCALE: 1"=50'

Attachment C  
 PROJECT NUMBER & PHASE  
 UNIT 0000

0000000001

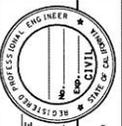
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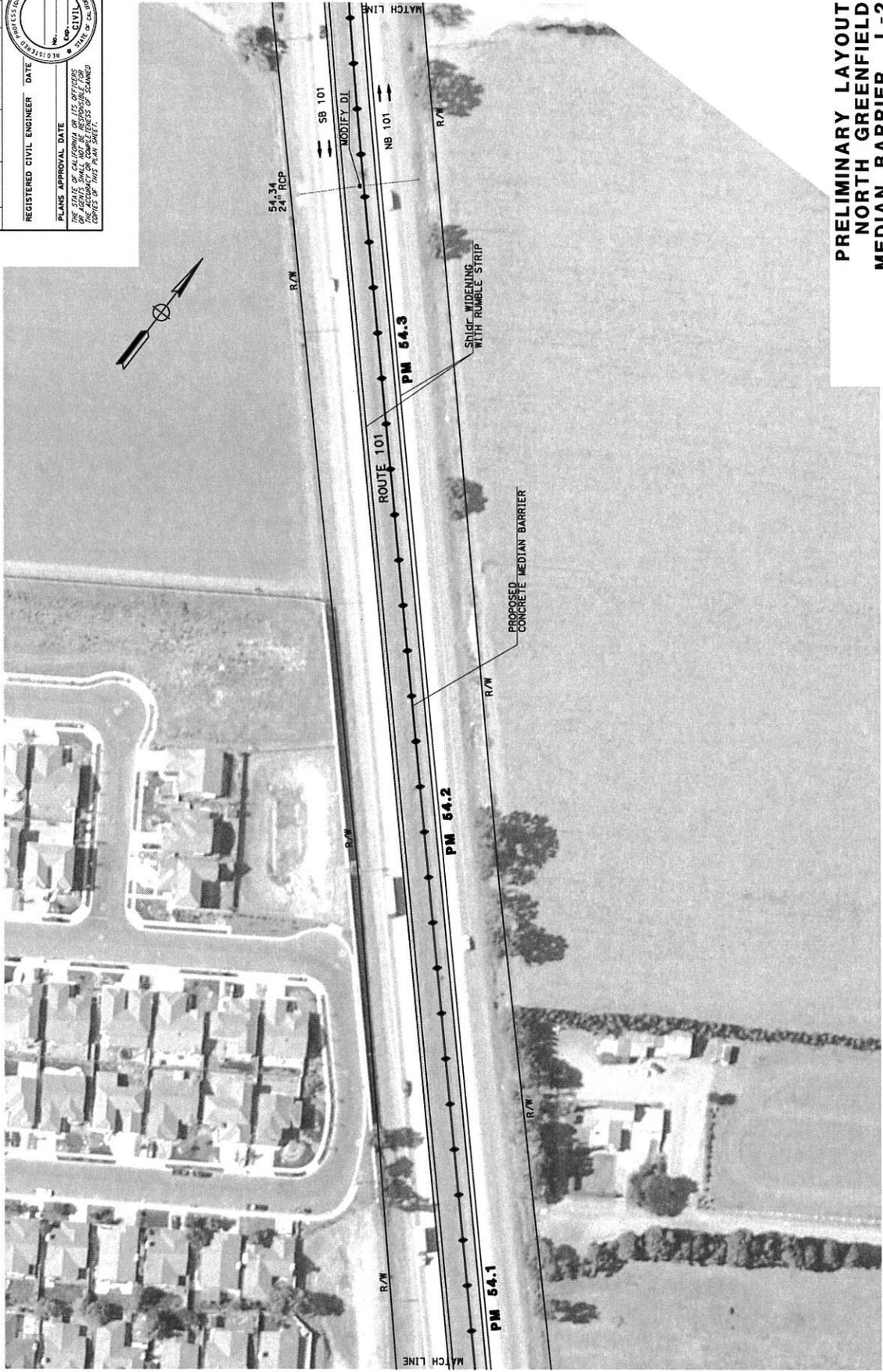
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	DATE REVISED
DATE REVISED	REVISOR	DATE REVISED	REVISOR	DATE REVISED

Dist#	COUNTY	ROUTE	POST MILES	SHEET TOTAL
5	Mon	101	53.9/57.1	NO. SHEETS



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE ACCURACY OF THIS DRAWING IS THE RESPONSIBILITY OF THE DESIGNER. THE USER SHALL VERIFY THE ACCURACY OF THIS DRAWING BY VISUAL MEANS AND BY FIELD SURVEY. THE USER SHALL BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE USER SHALL BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE USER SHALL BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-2**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 00000000001

UNIT 0000



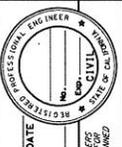
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BORDER LAST REVISED 7/2/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CHECKED BY	DATE REVISED
Caltrans		DESIGNED BY	REVISED BY

Dist#	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET COUNT
5	MON	101	53.9/57.1	NO. SHEETS



REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_  
 THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 THE ACCURACY OF THIS PLAN SHEET IS THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-3**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 0000000001

UNIT 0000



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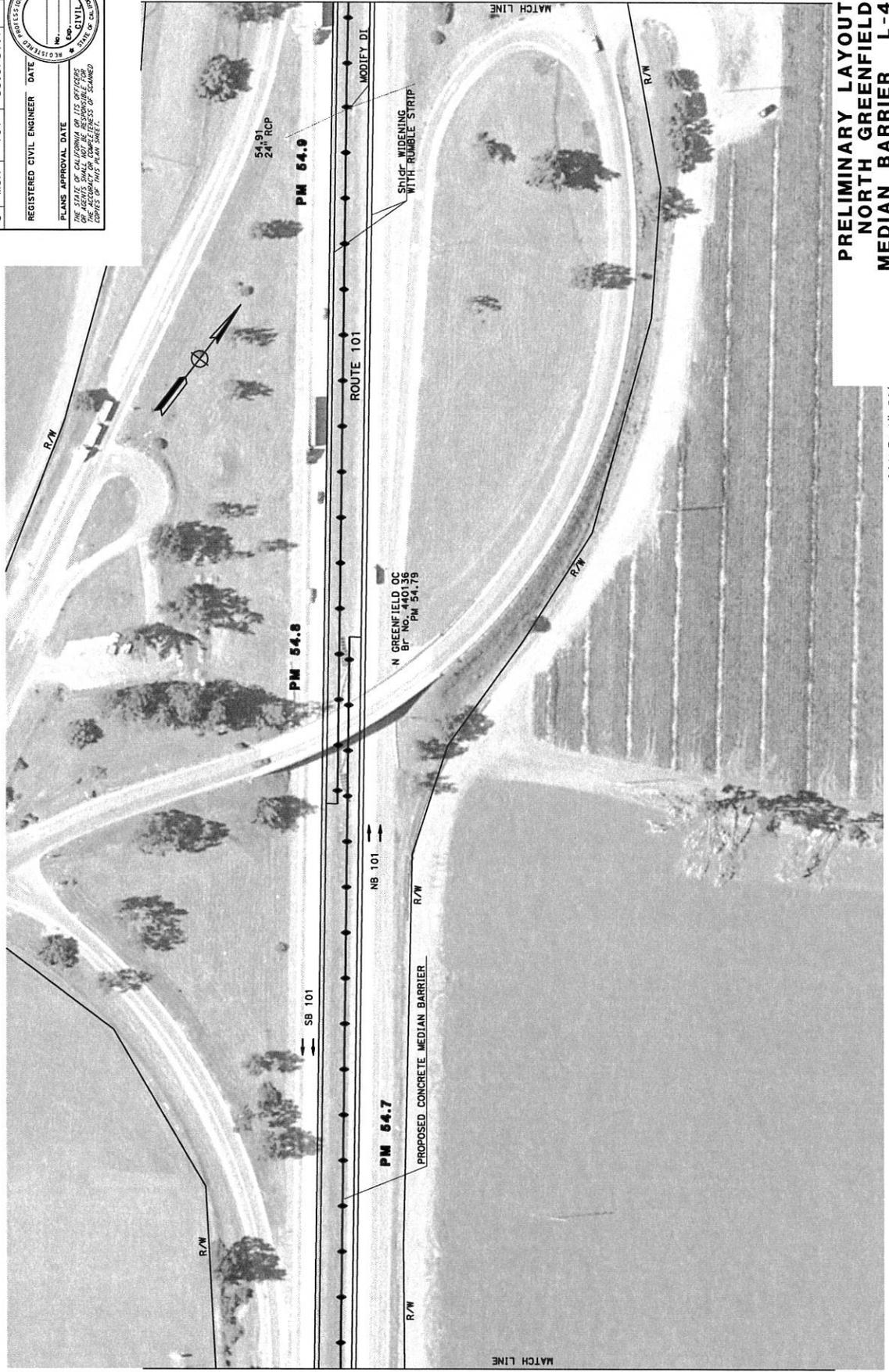
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CHECKED BY	DATE REVISED
	DESIGNED BY		REVISED BY



Dist	County	Route	Sheet Title	Sheet No.	Total Sheets
5	Mon	101	53.9/57.1		



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE ACCURACY OR COMPLETENESS OF PLANNED  
 WORK OR THIS PLAN SHEET.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-4**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 00000000001

UNIT 0000



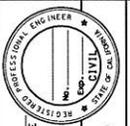
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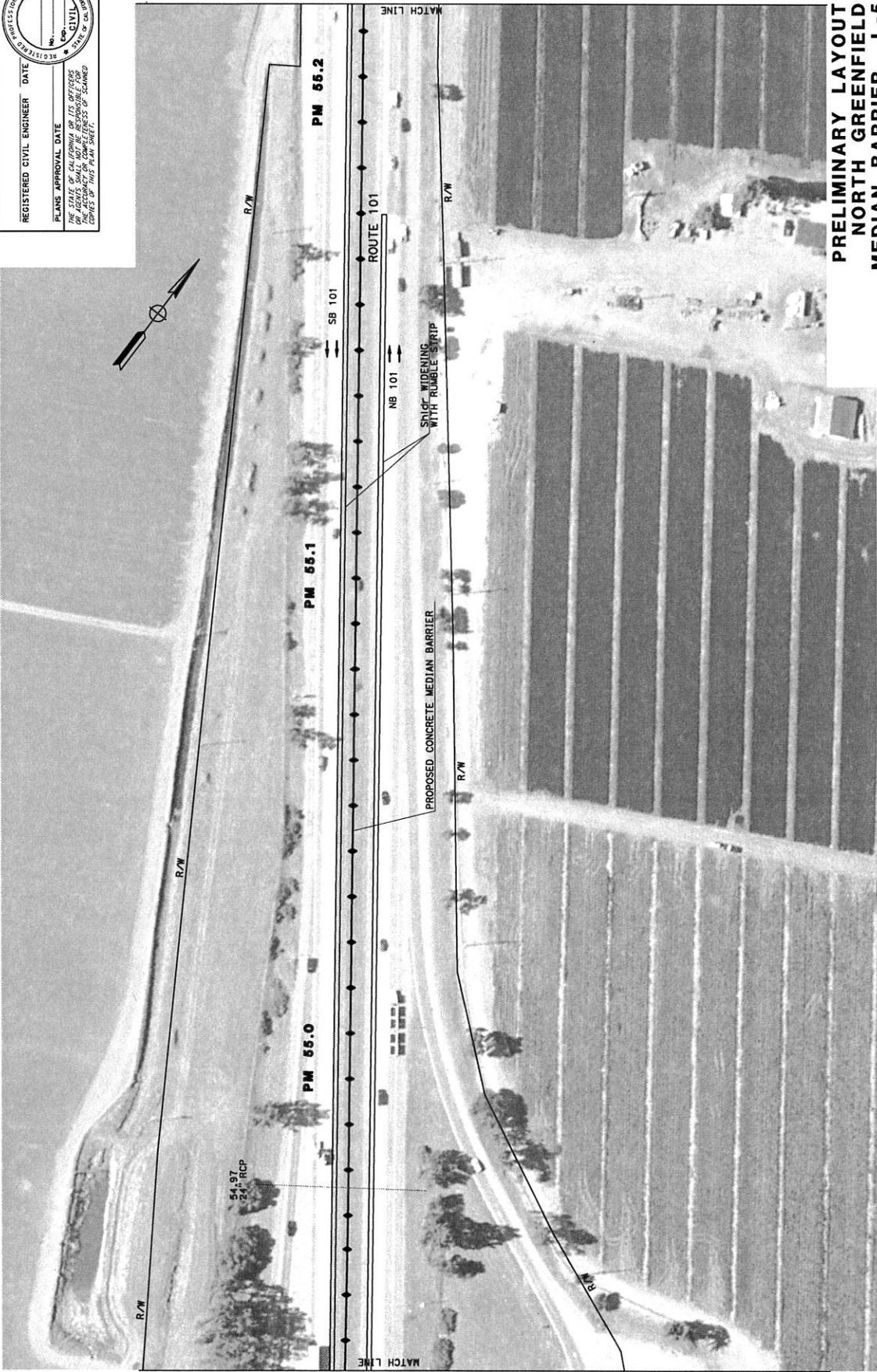
BORDER LAST REVISED 7/2/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	DATE REVISED
DR. GIBBONS				

Dist	County	Route	Sheet Title	Sheet No.	Total Sheets
5	Mon	101	53.9/57.1		



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA FOR ITS OFFICERS  
 THE ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-5**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 000000000001

UNIT 0000

RELATIVE BORDER SCALE IS IN INCHES

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 DGN FILE -> 19386\_P1D\_e0005.dgn

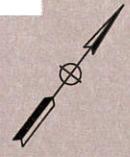
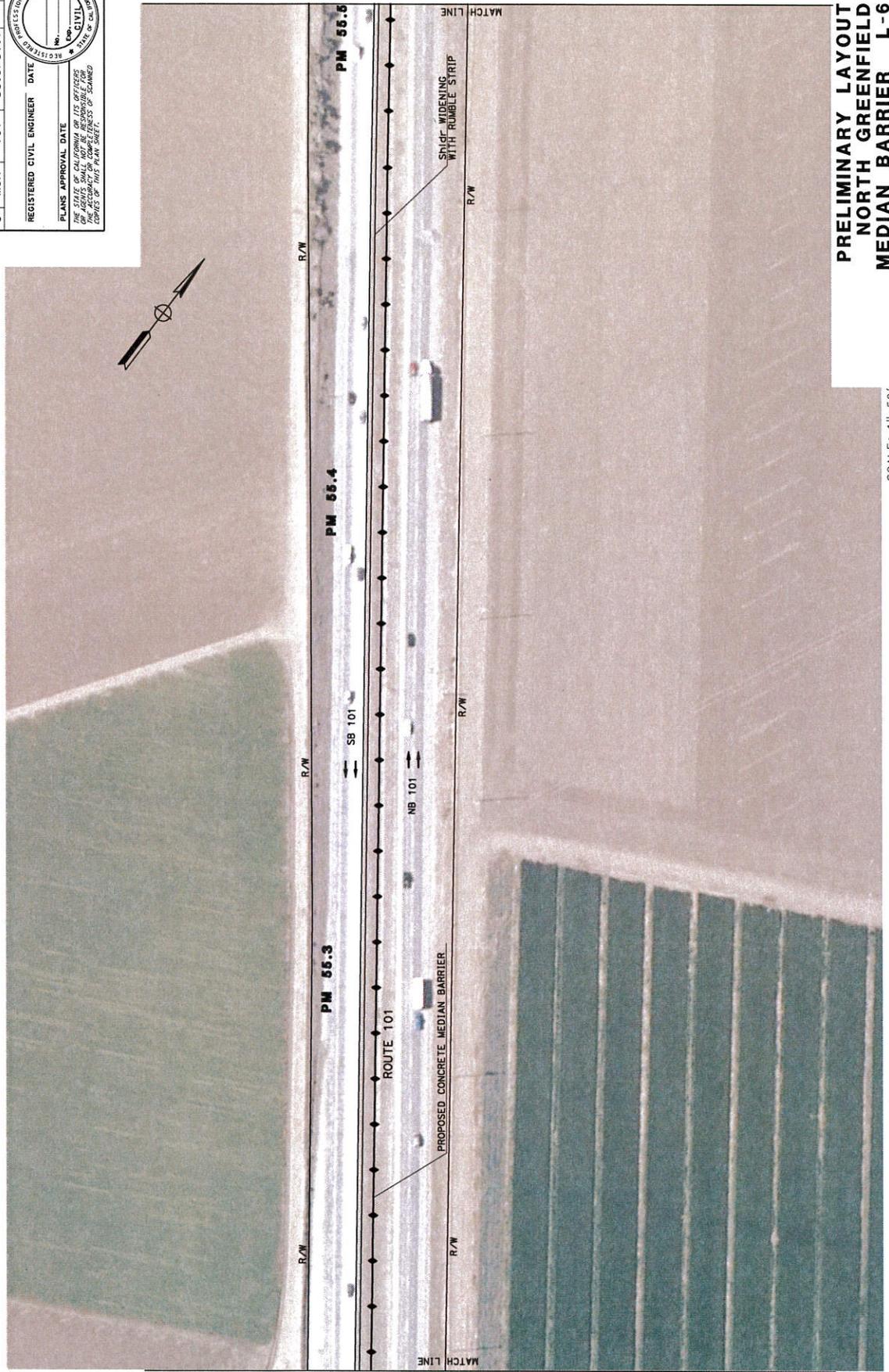
BORDER LAST REVISED 7/2/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	DATE REVISED
BE&K				

Dist	County	Route	Sheet Miles	Sheet No.	Total Project	Sheet No.
5	Mon	101	53.9/57.1			



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE AUTHORITY OF THIS PLAN SHEET.  
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**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-6**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 0000000001

UNIT 0000



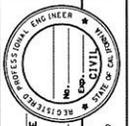
RELATIVE BORDER SCALE IS IN INCHES

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BORDER LAST REVISED 7/2/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	DATE REVISED

Dist	County	Route	Sheet No.	Total Sheets	Project No.
5	Mon	101	53.9/57.1		



REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE AUTHORITY OF THE ENGINEER OF THIS PLAN SHEET.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-7**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 00000000001

UNIT 0000



RELATIVE BORDER SCALE IS IN INCHES

USERNAME: s131753  
 DOW FILE: 19386\_P\_ID\_e0007.dgn

BORDER LAST REVISED 7/27/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	DATE REVISED
CS. CHIVERS		CHECKED BY	
		REVISOR BY	
		DATE REVISED	

5	Mon	101	53.9/57.1	SHEET NO.	TOTAL SHEETS	PROJECT NO.
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REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE ACCEPTANCE OF COMPLETE SETS OF PLANNED  
 CONCEPTS OF THIS PLAN SHEET.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-8**

SCALE: 1"=50'

DATE PLOTTED => 01-APR-2015 17:02  
 PROJECT NUMBER & PHASE UNIT 0000  
 RELATIVE BORDER SCALE 15 TH INCHES  
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 DGN FILE => 19386\_P1D\_w008.dgn  
 BORDER LAST REVISED 7/2/2010  
 PROJECT NUMBER & PHASE UNIT 0000 000000000001

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	DATE REVISED
<b>St. Kittans</b>				

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
5	MON	101	53.9/57.1	



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA ON ITS OFFICERS  
 THE ACCURACY OF THE INFORMATION CONTAINED  
 HEREIN IS THE SOLE RESPONSIBILITY OF THE ENGINEER



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-9**

SCALE: 1"=50'

PROJECT NUMBER & PHASE 0000000001

UNIT 0000



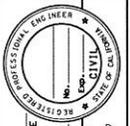
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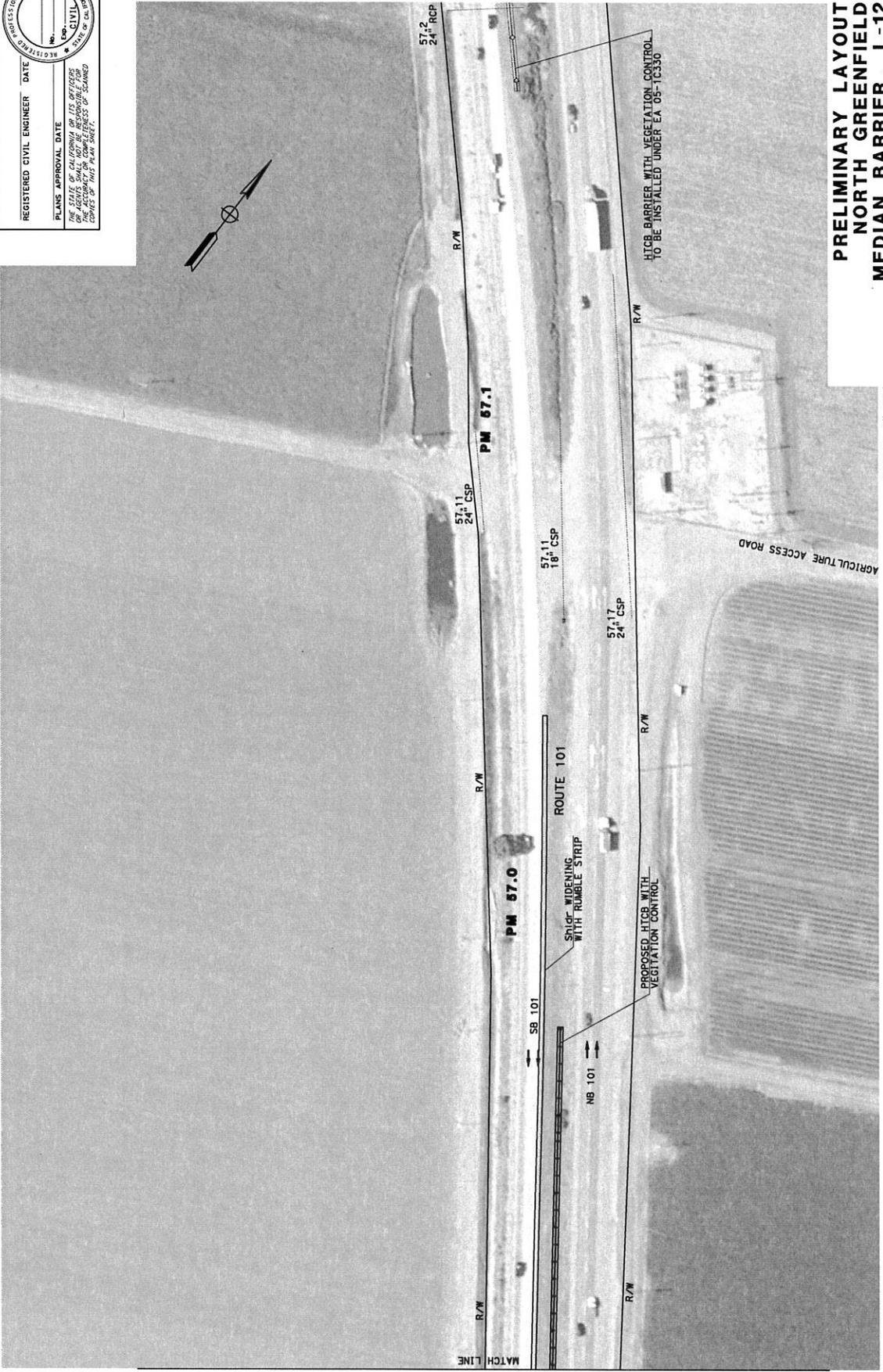
BORDER LAST REVISED 7/2/2010

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CHECKED BY	DATE REVISED
Caltrans	DESIGNED BY	REVISOR	

Dist#	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
5	Mon	101	53.9/57.1		



REGISTERED CIVIL ENGINEER DATE  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE ACCURACY OR COMPLETENESS OF THE  
 CONTENTS OF THIS PLAN SHEET.



**PRELIMINARY LAYOUT  
 NORTH GREENFIELD  
 MEDIAN BARRIER L-12**

SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE REVISOR
BT-Cliffhans	CHECKED BY	DESIGNED BY	REVISOR	DATE REVISOR

PRELIMINARY  
PROJECT COST ESTIMATE

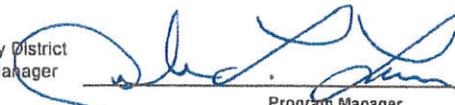
**Preliminary Cost Estimate**  
**Project EA: 05-1G380K**  
**Project ID: 0515000007**

Type of Estimate : PSR/PR  
 Program Code : SHOPP / 201.010  
 Project Limits : Route 101 / PM 53.9 to 57.1  
 Description: Median barrier north of and in Greenfield in Monterey County  
 Scope : Median barrier  
 Alternative : Alternate 1 - Concrete/Cable

	Current Cost	Escalated Cost
ROADWAY ITEMS	\$ 3,800,100	\$ 4,190,000
STRUCTURE ITEMS	\$ -	\$ -
SUBTOTAL CONSTRUCTION COST	\$ 3,800,100	\$ 4,190,000
RIGHT OF WAY	\$ 3,750	\$ 5,000
<b>TOTAL CAPITAL OUTLAY COST</b>	<b>\$ 3,804,000</b>	<b>\$ 4,195,000</b>
PR/ED SUPPORT	\$ -	\$ -
PS&E SUPPORT	\$ -	\$ -
RIGHT OF WAY SUPPORT	\$ -	\$ -
CONSTRUCTION SUPPORT	\$ -	\$ -
<b>TOTAL CAPITAL OUTLAY SUPPORT COST*</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL PROJECT COST</b>	<b>\$ 3,804,000</b>	<b>\$ 4,195,000</b>

*Estimated Project Schedule*

PID Approval  
 PAVED Approval July-15  
 PS&E October-16  
 RTL January-17  
 Begin Construction Jul-17

Reviewed by District Program Manager  5/8/2015  
 Program Manager Date Phone

Approved by Project Manager  5/8/15 (805) 549-3084  
 Project Manager Date Phone

PRELIMINARY  
PROJECT COST ESTIMATE

## I. ROADWAY ITEMS SUMMARY

Section	Cost
1 Earthwork	\$ 342,500
2 Pavement Structural Section	\$ 1,082,600
3 Drainage	\$ 28,800
4 Specialty Items	\$ 727,200
5 Environmental	\$ 227,800
6 Traffic Items	\$ 193,400
7 Detours	\$ -
8 Minor Items	\$ 260,300
9 Roadway Mobilization	\$ 143,200
10 Supplemental Work	\$ 143,200
11 State Furnished	\$ 154,700
12 Contingencies	\$ 496,400
13 Overhead	\$ -
<b>TOTAL ROADWAY ITEMS</b>	<b>\$ 3,800,100</b>

Estimate Prepared By Susan Lozon 4/7/2015 594-6164  
Name and Title Date Phone

Estimate Reviewed By Scott Kirkish 4/7/2015 542-6199  
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 1: EARTHWORK**

Item code	Unit	Quantity	Unit Price (\$)	Cost
160102 Clearing & Grubbing	LS	1	x 6,000.00	= \$ 6,000
170101 Develop Water Supply	LS		x	= \$ -
190101 Roadway Excavation	CY	10,850	x 22.00	= \$ 238,700
19010X Roadway Excavation (Type Y-2) ADL	CY	3,760	x 26.00	= \$ 97,760
190105 Roadway Excavation (Type Z-2) ADL	CY		x	= \$ -
192037 Structure Excavation (Retaining Wall)	CY		x	= \$ -
193013 Structure Backfill (Retaining Wall)	CY		x	= \$ -
193031 Pervious Backfill Material (Retaining Wall)	CY		x	= \$ -
194001 Ditch Excavation	CY		x	= \$ -
198010 Impored Borrow	CY		x	= \$ -
190185 Shoulder Backing	TON		x	= \$ -
XXXXXX Some Item			x	= \$ -

<b>TOTAL EARTHWORK SECTION ITEMS</b>	<b>\$ 342,500</b>
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**SECTION 2: PAVEMENT STRUCTURAL SECTION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
150771 Remove Asphalt Concrete Dike	LF		x	= \$ -
150860 Remove Base and Surfacing	CY		x	= \$ -
150711 Remove Painted Traffic Stripe	SQYD		x	= \$ -
150714 Remove Thermoplastic Traffic Stripe	CY		x	= \$ -
150715 Remove Thermoplastic Pavement Marking	CY		x	= \$ -
260203 Class 2 Aggregate Base (CY)	CY	7,300	x 42.00	= \$ 306,600
1523XX Asphalt Treated Permeable Base	CY		x	= \$ -
370001 Sand Cover (Seal)	TON		x	= \$ -
374002 Asphaltic Emulsion (Fog Seal Coat)	TON		x	= \$ -
374493 Polymer Asphaltic Emulsion (Seal Coat)	TON		x	= \$ -
375001 Furnish "Type" Sign	TON		x	= \$ -
5680XX Install Sign	TON		x	= \$ -
390095 Replace Asphalt Concrete Surfacing	CY		x	= \$ -
39013X Hot Mix Asphalt	TON	6,900	x 110.00	= \$ 759,000
390136 Minor Hot Mix Asphalt	TON		x	= \$ -
39300X Geosynthetic Pavement Interlayer (Type)	SQYD		x	= \$ -
39405X Shoulder Rumble Strip (HMA, Type XX Inden.	STA	215	x 40.00	= \$ 8,600
39407X Place Hot Mix Asphalt Dike (Type)	LF		x	= \$ -
394090 Place Hot Mix Asphalt (Misc. Area)	SQYD		x	= \$ -
397005 Tack Coat	TON	7	x 1,200.00	= \$ 8,400
1201XX Jointed Plain Concrete Pavement	CY		x	= \$ -
411105 Individual Slab Replacement (RSC)	CY		x	= \$ -
128652 Joint Seal (Type)	LS		x	= \$ -
41424X Isolation Joint Seal (Type)	LF		x	= \$ -
41XXXX Repair Spalled Joints (Polyester Grout)	SQYD		x	= \$ -
420201 Grind Existing Concrete Pavement	SQYD		x	= \$ -
731502 Minor Concrete (Misc. Const)	CY		x	= \$ -
731530 Minor Concrete (Textured Paving)	CY		x	= \$ -
XXXXXX Some Item			x	= \$ -

<b>TOTAL STRUCTURAL SECTION ITEMS</b>	<b>\$ 1,082,600</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 3: DRAINAGE**

Item code	Unit	Quantity	Unit Price (\$)	Cost
150204	Abandon Culvert (LF)	LF	x	= \$ -
150809	Remove Culvert (LF)	LF	x	= \$ -
152604	Modify Inlet	EA	7 x	= \$ 21,000
152430	Adjust Inlet	EA	x	= \$ -
155003	Cap Inlet	EA	x	= \$ -
155232	Sand Backfill	CY	x	= \$ -
510502	Minor Concrete (Minor Structure)	CY	x	= \$ -
510090	Structural Concrete, Box Culvert	CY	x	= \$ -
62XXXX	XXX" APC Pipe	LF	x	= \$ -
64XXXX	XXX" Plastic Pipe	LF	x	= \$ -
65XXXX	XXX" RCP Pipe	LF	x	= \$ -
66XXXX	XXX" CSP Pipe	LF	x	= \$ -
68XXXX	Edge Drain	LF	x	= \$ -
69XXXX	XXX" Pipe Downdrain	LF	x	= \$ -
70XXXX	XXX" Pipe Inlet	LF	x	= \$ -
70XXXX	XXX" Pipe Riser	LF	x	= \$ -
70XXXX	XXX" Flared End Section	EA	x	= \$ -
703233	Grated Line Drain	LF	x	= \$ -
709522	Inlet Depression	EA	7 x	= \$ 5,600
72XXXX	Rock Slope Protection (Type and Method)	CY	x	= \$ -
721420	Concrete (Ditch Lining)	CY	x	= \$ -
721430	Concrete (Channel Lining)	CY	x	= \$ -
72901X	Rock Slope Protection Fabric	SQYD	x	= \$ -
750001	Miscellaneous Iron and Steel	LB	1,052 x	= \$ 2,104

<b>TOTAL DRAINAGE ITEMS</b>	<b>\$ 28,800</b>
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**SECTION 4: SPECIALTY ITEMS**

Item code	Unit	Quantity	Unit Price (\$)	Cost
Furnish "Type" Sign				
5680XX	Install Sign	LS	x	= \$ -
15126X	Remove Thrie Beam Barrier	LF	240 x	= \$ 6,000
156585	Remove Crash Cushion	EA	x	= \$ -
1532XX	Remove Concrete Barrier ( <i>Insert Type</i> )	LF	x	= \$ -
156590	Remove Crash Cushion (Sand Filled)	EA	x	= \$ -
158100	Salvage Crash Cushion	EA	3 x	= \$ 4,500
490XXX	CIDH Concrete Piling ( <i>Insert Diameter</i> )	LF	x	= \$ -
510060	Structural Concrete (Retaining Wall)	CY	x	= \$ -
510059	Structural Concrete, Retaining Wall (Sound W	CY	x	= \$ -
1201XX	Minor Concrete (Wall)	CY	x	= \$ -
5110XX	Architectural Treatment ( <i>Insert Type</i> )	SQFT	x	= \$ -
128652	Anti-Graffiti Coating	LS	x	= \$ -
4730XX	Reinforced Concrete Crib Wall ( <i>Insert Type</i> )	SQFT	x	= \$ -
582001	Sound Wall (Masonry Block)	SQFT	x	= \$ -
83207X	Vegetation Control	SQYD	2,200 x	= \$ 110,000
832005	Midwest Guardrail System	LF	x	= \$ -
839310	Double Thrie Beam Barrier	LF	x	= \$ -
83XXXX	High Tension Cable Barrier	LF	4,900 x	= \$ 102,900
832070	Transition Railing ( <i>Insert Type</i> )	EA	x	= \$ -
8395XX	Terminal System ( <i>Type</i> )	EA	x	= \$ -
839585	Alternative Flared Terminal System	EA	x	= \$ -
83958X	End Anchor Assembly (HTCB)	EA	2 x	= \$ 8,000
839561	Rail Tensioning Assembly	EA	x	= \$ -
839XXX	Crash Cushion ( <i>Insert Type</i> )	EA	1 x	= \$ 22,000
839701	Concrete Barrier (Type 60)	LF	10,300 x	= \$ 473,800
839700	Concrete Barrier (Type 60F)	LF	x	= \$ -
XXXXXX	Some Item		x	= \$ -

<b>TOTAL SPECIALTY ITEMS</b>	<b>\$ 727,200</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 5: ENVIRONMENTAL**

**5A - ENVIRONMENTAL MITIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
Biological Mitigation	LS	x	= \$	-
070030 Lead Compliance Plan	LS	1	x 2,000.00 = \$	2,000
130670 TEMPORARY REINFORCED SILT FENCE	LF	x	= \$	-
141000 Temporary Fence (Type ESA)	LF	x	= \$	-
<u>Subtotal Environmental</u>				<u>\$ 2,000</u>

**5B - LANDSCAPE AND IRRIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
200002 Roadside Clearing	LS	x	= \$	-
208XXX XXX" (Insert Type) Conduit (Use for	LF	x	= \$	-
20XXXX Extend XXX" (Insert Type) Conduit	LF	x	= \$	-
210600 Compost	SQFT	990,000	x 0.11 = \$	108,900
2102XX Erosion Control (Type __)	SQYD	111,000	x 0.29 = \$	32,190
210300 Hydromulch	SQFT	990,000	x 0.03 = \$	29,700
210010 Move In/ Move Out (Erosion Control)	EA	x	= \$	-
204099 Plant Establishment Work	LS	x	= \$	-
Extend Plant Establishment (X Years)	LS	x	= \$	-
206XXX Irrigation Controllor	EA	x	= \$	-
202027 Relocate Water Meter	EA	x	= \$	-
Maintenance Vehicle Pullout	EA	x	= \$	-
XXXXXX Some Item	LS	x	= \$	-
<u>Subtotal Landscape and Irrigation</u>				<u>\$ 170,790</u>

**5C - NPDES**

Item code	Unit	Quantity	Unit Price (\$)	Cost
1523XX				
130100 Job Site Management	LS	x	= \$	-
130200 Prepare WPCP	LS	x	= \$	-
130300 Prepare SWPPP	LS	x	= \$	-
130560 Furnish "Type" Sign	SQYD	x	= \$	-
5680XX Install Sign	SQYD	x	= \$	-
130640 Temporary Fiber Roll	LF	x	= \$	-
130900 Temporary Concrete Washout	LS	x	= \$	-
130710 Temporary Construction Entrance	EA	x	= \$	-
130610 Temporary Check Dam	LF	x	= \$	-
130505 Move In/ Move Out (Temporary Erosion Cont	EA	x	= \$	-
130620 Temp. Drainage Inlet Protection	EA	x	= \$	-
130730 Street Sweeping	LS	x	= \$	-
XXXXXX Some Item	LS	1	x 55,000.00 = \$	55,000

1201XX

(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

128652 Water Pollution Control Maintenance Sharing	LS	x	= \$	-
066596 Additional Water Pollution Control**	LS	x	= \$	-
066597 Storm Water Sampling and Analysis***	LS	x	= \$	-

Subtotal NPDES (Without Supplemental Work)    \$ 55,000

\*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

\*\*Applies to both SWPPPs and WPCP projects.

\*\*\* Applies only to project with SWPPPs.

<b>TOTAL ENVIRONMENTAL</b>	<b>\$ 227,800</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 6: TRAFFIC ITEMS**

**6A - Traffic Electrical**

Item code	Unit	Quantity	Unit Price (\$)	Cost
150760 Remove Sign Structure	EA	x	= \$	-
151581 Reconstruct Sign Structure	EA	x	= \$	-
152641 Modify Sign Structure	EA	x	= \$	-
5602XX Furnish Sign Structure	LB	x	= \$	-
5602XX Install Sign Structure	LB	x	= \$	-
56XXXX XXX" CIDHC Pile (Sign Foundation)	LF	x	= \$	-
860090 Maintain Existing Traffic Management	LS	x	= \$	-
860810 Inductive Loop Detectors	EA	x	= \$	-
86055X Lighting & Sign Illumination	LS	x	= \$	-
8607XX Interconnection Facilities	LS	x	= \$	-
8609XX Traffic Monitoring Stations	LS	x	= \$	-
860XXX Signals & Lighting	LS	x	= \$	-
8611XX Ramp Metering System (Location X)	LS	x	= \$	-
8611XX Ramp Metering System (Location X)	LS	x	= \$	-
86XXXX Fiber Optic Conduit System	LS	x	= \$	-
XXXXX Some Item				
<i>Subtotal Traffic Electrical</i>				<u>\$ -</u>

**6B - Traffic Signing and Striping**

Item code	Unit	Quantity	Unit Price (\$)	Cost
120090 Construction Area Signs	LS	1 x	8,000.00 = \$	8,000
150711 Remove Painted Traffic Stripe	LF	x	= \$	-
150714 Remove Thermoplastic Traffic Stripe	LF	x	= \$	-
150715 Remove Thermoplastic Pavement Marking	SQFT	x	= \$	-
150742 Remove Roadside Sign	EA	x	= \$	-
1523XX Reset Roadside Sign	EA	2 x	300.00 = \$	600
152390 Relocate Roadside Sign	EA	x	= \$	-
566011 Roadside Sign (One Post)	EA	x	= \$	-
566012 Roadside Sign (Two Post)	EA	x	= \$	-
560XXX Furnish "Type" Sign	SQFT	x	= \$	-
5680XX Install Sign	SQFT	x	= \$	-
82010X Delineator (Class X)	EA	x	= \$	-
8405XX Thermoplastic Traffic Stripe	LF	21,400 x	0.75 = \$	16,050
850111 Pavement Marker	EA	900 x	3.70 = \$	3,330
<i>Subtotal Traffic Signing and Striping</i>				<u>\$ 27,980</u>

**6C - Stage Construction and Traffic Handling**

Item code	Unit	Quantity	Unit Price (\$)	Cost
120100 Traffic Control System	LS	1 x	120,000.00 = \$	120,000
120120 Type III Barricade	EA	x	= \$	-
1201XX Temporary Pavement Delineation	LF	x	= \$	-
12016X Channelizer	EA	x	= \$	-
128652 Portable Changeable Message Signs	LS	1 x	15,000.00 = \$	15,000
129000 Temporary Railing (Type K)	LF	520 x	45.00 = \$	23,400
129100 Temp. Crash Cushion Module	EA	28 x	250.00 = \$	7,000
Temporary Alternative Crash Cushion	EA	x	= \$	-
XXXXXX Some Item				
<i>Subtotal Stage Construction and Traffic Handling</i>				<u>\$ 165,400</u>

<b>TOTAL TRAFFIC ITEMS</b>	<b>\$ 193,400</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 7: DETOURS**

Include constructing, maintaining, and removal

Item code	Unit	Quantity	Unit Price (\$)	Cost
0713XX Temporary Fence (Type X)	LF	x	= \$	-
07XXXX Temporary Drainage	LS	x	= \$	-
120143 Temporary Pavement Delineation	LF	x	= \$	-
1286XX Temporary Signals	EA	x	= \$	-
129000 Temporary Railing (Type K)	LF	x	= \$	-
190101 Roadway Excavation	CY	x	= \$	-
198001 Imported Borrow	CY	x	= \$	-
198050 Embankment	CY	x	= \$	-
250401 Class 4 Aggregate Subbase	CY	x	= \$	-
260201 Class 2 Aggregate Base	CY	x	= \$	-
390132 Hot Mix Asphalt (Type A)	TON	x	= \$	-
XXXXXX Some Item	LS	x	= \$	-
<b>TOTAL DETOURS</b>				<b>\$ -</b>
SUBTOTAL SECTIONS 1-7				<b>\$ 2,602,300</b>

**SECTION 8: MINOR ITEMS**

<b>Item code</b>				
<b>8A - Americans with Disabilities Act Items</b>				
ADA Items			0.0%	\$ -
<b>8B - Bike Path Items</b>				
Bike Path Items			0.0%	\$ -
XXXXXX Some Item			10.0%	\$ 260,230
1523XX Total of Section 1-7	\$	2,602,300	x 10.0%	= \$ 260,230
<b>TOTAL MINOR ITEMS</b>				<b>\$ 260,300</b>

**SECTIONS 9: MOBILIZATION**

<b>Item code</b>				
999990 Total Section 1-8	\$	2,862,600	x 5%	= \$ 143,130
<b>TOTAL MOBILIZATION</b>				<b>\$ 143,200</b>

**SECTION 10: SUPPLEMENTAL WORK**

Item code	Unit	Quantity	Unit Price (\$)	Cost
066015 Federal Trainee Program	LS	x	= \$	-
066090 Maintain Traffic	LS	x	= \$	-
128652 Value Analysis	LS	x	= \$	-
066204 Remove Rock & Debris	LS	x	= \$	-
066222 Locate Existing Cross-Over	LS	x	= \$	-
066866 Operation of Existing Traffic Management S	LS	x	= \$	-
066920 Dispute Review Board	LS	x	= \$	-
XXXXXX Some Item		x	= \$	-
<i>Cost of NPDES Supplemental Work specified in Section 5C</i>				<i>= \$ -</i>
Total Section 1-8	\$	2,862,600	5%	= \$ 143,130
<b>TOTAL SUPPLEMENTAL WORK</b>				<b>\$ 143,200</b>

PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES**

Item code		Unit	Quantity		Unit Price (\$)	=	Cost
066063	Traffic Management Plan - Public Informat	LS	1	x	8,000.00	=	\$8,000
066105	RE Office	LS	1	x	18,000.00	=	\$18,000
066803	Padlocks	LS		x		=	\$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	\$0
066901	Water Expenses	LS		x		=	\$0
066062A	COZEEP Expenses	LS	1	x	100,000.00	=	\$100,000
06684X	Ramp Meter Controller Assembly	LS		x		=	\$0
06684X	TMS Controller Assembly	LS		x		=	\$0
06684X	Traffic Signal Controller Assembly	LS		x		=	\$0
XXXXXX	Some Item						
Total Section 1-8		\$	2,862,600		1%	=	\$ 28,626

<b>TOTAL STATE FURNISHED</b>	<b>\$154,700</b>
------------------------------	------------------

**SECTION 12: TIME-RELATED OVERHEAD**

Estiamted Time-Related Overhead (TRO) Percentage (0% to 10%) = 0%

Item code		Unit	Quantity		Unit Price (\$)	=	Cost
150711	Remove Painted Traffic Stripe						
1523XX	Time-Related Overhead	WD	90	X	0	=	\$0

<b>TOTAL TIME-RELATED OVERHEAD</b>	<b>\$0</b>
------------------------------------	------------

Furnish "Type" Sign  
5680XX Install Sign

**SECTION 13: CONTINGENCY**

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-11                      \$    3,303,700    x    15%    =    \$496,348

<b>TOTAL CONTINGENCY</b>	<b>\$496,400</b>
--------------------------	------------------

**Memorandum**

To: John Luchetta  
PPM - SLO

Date: 3/17/2015

Attn Susan Lozon  
Design - SLO  
Steve Wyatt  
Design - SLO

File: CD 05 EA 1G380K Alt NA  
Co MON RTE 101

From: Department of Transportation  
Division of Right of Way Central Region

DESCRIPTION:  
Construct median barrier starting with concrete barrier and  
transitioning to high tension cable median barrier.  
Median Barrier & Inside Shoulder Rumble Strip w/ Shoulder

Subject: RIGHT OF WAY DATA SHEET

We have completed an estimate of the right of way costs for the  
above-referenced project based on the Right of Way Data Sheet  
Request Form dated 10/30/2014

The following assumptions and limiting conditions were identified:

Appraisal

Utility

Utility verifications are substantially complete, having been made available through  
project 1E050. PE has requested 6 potholes for this estimate, and does not  
anticipate relocations at this time. Permit record and utility verification mapping  
indicate presence of UG water/sewer; UG gas; UG fiber optic and cable; aerial electric  
and aerial telephone. Comply with USA alert requirements to include project signage.  
Avoid and protect in place all UG and aerial utility facilities.

Right of Way Lead Time will require a minimum of 6 months after we receive Certified  
Appraisal Maps and/or Utility Conflict Plans, obtained necessary environmental  
clearance and applicable freeway agreements have been approved.



Marshall Garcia, Sr. Right of Way Agent  
San Luis Obispo Field Office  
(805) 549-3471

**Right Of Way Cost Estimate**

	Current Year 2014	Contingency Rate	Right of Way Escalation Rate	Escalated Year 2017
Acquisition:	\$0	25%	5%	\$0
Mitigation:	\$0	25%	5%	\$0
State Share of Utilities:	\$3,750	25%	5%	\$4,341
Expert Witness:	\$0	25%	5%	\$0
Relocation Assistance:	\$0	25%	5%	\$0
Demolition and Clearance:	\$0	25%	5%	\$0
Title and Escrow:	\$0	25%	5%	\$0
Ad Signs:	\$0	25%	5%	\$0
<b>Total Current Value:</b>	<b>\$3,750</b>			<b>\$4,341</b>

If RW Cost Est fields are blank, Costs = \$0

Estimated Construction Contract Work (CCW):

RW LEAD TIME/Mo. 6

Cost Break Down	
Pot Hole	3,000
Mitigation	
Land	
Bank	
Permit Fees	

**RR Involvement**

Railroad Facilities or Right of Way Affected?	no
Const/Maint Agreement:	no
Service Contract:	no
Right of Entry:	no
Clauses:	no
Estimated Lead-time	0 mon

**Parcel Data**

# of Parcel Type X:			
# of Parcel Type A: less than \$10,000 non-complex			
# of Parcel Type B: more than \$10,000 non-complex			
# of Parcel Type C: complex, special valuation			
# of Parcel Type D: most complex and time consuming		# of Duals Needed:	
<b>Totals:</b>	0	<b>Totals:</b>	0

# of Excess Parcels:

**Misc R/W Work**

# of RAP Displacements:	0
# of Clearance/Demos:	
# of Const Permits:	
# of Condemnations:	

**Utilities**

U4-1: Owner Expense	1
U4-2: State Expense, Conventional no Fed Aid	0
U4-3: State Expense, Freeway no Fed Aid	0
U4-4: State Expense, both with Fed Aid	1
U5-7: Utility verification, no relocation/potholing	3
U5-8: Utility verification, w/ some relocation/potholing	
U5-9: Utility verifications, relocation/potholing required	2

EA: 05-1G380K ALT: NA

Parcel Area

Total R/W Required:
Total Excess Area:

General Description of R/W and Excess Lands Required (zoning, use, major improvements, critical or sensitive parcels, etc.):

**General Description of Utility Involvement:**

US 101 is designated freeway/expressway in the project limits. Work as proposed is to construct a median barrier - both concrete and high tension cable. Some shoulder widening may be incorporated from project 1E050. All work is anticipated to remain within existing r/w.

Is there a significant effect on assessed valuation:

No

Were any previously unidentified sites with hazardous waste or material found:

No

Are RAP displacements required:

No

# of single family:

# of muliti-family:

# of business/nonprofit:

# of farms:

Sufficient replacement housing will be available without last resort housing:

Are material borrow or disposal sites required:

No

Are there potential relinquishments or abandonments:

No

Are there any existing or potential airspace sites:

No

Are environmental mitigation parcels required:

No

**Data for evaluation provided by:**

Estimator:

Railroad Liaison Agent:

Jim Gentry

11/3/2014

Uility Relocation Coordinator:

Chris Shaeffer

3/16/2015

*I have personally reviewed this Right of Way Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.*

Date

ENTERED PMCS

3/17/2015

BY: Danny Millsap

Marshall Garcia

Sr. Right of Way Agent, Right of Way

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**

<b>05-MON-101</b>	<b>53.9/57.1</b>	<b>05-1G380K</b>
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No. Federal-Aid Project No. (Local Project)/Project No.

**PROJECT DESCRIPTION:** (Briefly describe project including need, purpose, location, limits, right-of-way requirements, and activities involved in this box. Use Continuation Sheet, if necessary.)

Caltrans proposes to construct a median barrier on Route 101 from PM 53.9 to PM 57.1, widen inside shoulders to 5-feet and place rumble strip on the inside shoulders. Additional work will include grading, paving for the shoulder widening and concrete barrier, and concrete vegetation control for the cable barrier. Improvements will be made as necessary to drainage facilities to maintain drainage and to match finish grade. Existing thrie beam barrier and crash cushions will also be removed from around the bridge columns near PM 54.8

**CEQA COMPLIANCE** (for State Projects only)

Based on an examination of this proposal and supporting information, the following statements are true and exceptions do not apply (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

**CALTRANS CEQA DETERMINATION** (Check one)

Exempt by Statute. (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

**Categorically Exempt. Class 1.** (PRC 21084; 14 CCR 15300 et seq.)

**Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3].)]

**Matt Fowler**

Print Name: Environmental Branch Chief

Signature

Date

**Aaron Henkel**

Print Name: Project Manager/DLA Engineer

Signature

Date

**NEPA COMPLIANCE**

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b).

**CALTRANS NEPA DETERMINATION** (Check one)

**23 USC 326:** The State has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the National Environmental Policy Act. The State has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding dated June 07, 2013, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

23 CFR 771.117(c): activity (c)( 26 )

23 CFR 771.117(d): activity (d)(      )

Activity      listed in Appendix A of the MOU between FHWA and the State

**23 USC 327:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under 23 USC 327.

**Matt Fowler**

Print Name: Environmental Branch Chief

Signature

Date

**Aaron Henkel**

Print Name: Project Manager/DLA Engineer

Signature

Date

Date of Categorical Exclusion Checklist completion: 4/9/15

Date of ECR or equivalent : 4/9/15

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., CE checklist, additional studies and design conditions).

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

<b>05-MON-101</b>	<b>53.9/57.1</b>	<b>05-1G380K</b>	
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

Continued from page 1:

**Visual**

The specific color of the concrete barrier will be determined by a representative of the Caltrans Landscape Architecture Branch

**Biology**

1. In order to avoid impacts to nesting birds, a pre-activity survey shall be conducted by a Caltrans biologist, no more than two weeks prior to vegetation disturbance if vegetation disturbance is scheduled to occur between February 15 and September 1.
2. Active bird nests shall not be disturbed, and eggs or young birds covered by the MBTA and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time. If an active bird nest is found in any vegetation proposed to be removed or trimmed, Caltrans will coordinate with CDFW to determine an appropriate buffer based on the habits and needs of the species. The nest area would be avoided until the nest is vacated and the juveniles have fledged.
3. Prior to construction, a qualified biologist will survey the project footprint and capture and relocate any San Joaquin whipsnakes (if present) or other special-status species to suitable habitat outside of the project footprint. Observations of any special-status species shall be documented on CNDDDB forms and submitted to CDFW upon project completion.
4. All grindings and asphaltic-concrete waste shall be stored within previously disturbed areas absent of habitat and at a minimum of 150 feet from any culvert, wash, pond, vernal pool, or stream crossing.
5. The Resident Engineer or their designee shall be responsible for implementing these conservation measures and shall be the point of contact

**Hazardous Waste**

Aerially deposited lead (ADL) – ADL may be an issue if soil is being excavated and placed elsewhere in the project limits or disposed of outside of the highway right of way, then the soil will need sampling in order to determine lead soil concentrations. A task order covering this same area is currently being written for another project. Those results will serve the needs of both projects. Since it is possible that the soil might contain lead in excess of regulatory limits, include a cost estimate of \$200 per cubic yard to dispose of excess soil as a hazardous waste unless the soil can be reused within the project limits in accordance with the terms of the variance issued by the Department of Toxic Substances Control. Since soil is being disturbed, a bid item must be included for a Lead Compliance Plan (LCP). Use a cost estimate of \$2,000.00 for this item





Dist-County-Route: 05 - MON - 101  
 Post Mile Limits: 53.9/57.1  
 Project Type: Median Barrier & Inside Shoulder Widening  
 Project ID (or EA): 05-1500-0007-K (05-1G380K)  
 Program Identification: SHOPP 201.010  
 Phase:  PID  
 PA/ED  
 PS&E

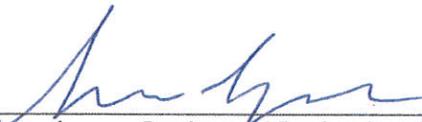
Regional Water Quality Control Board(s): Central Coast, Region 3

- 1. Does the project propose to create 1 ac or more of new/redeveloped new impervious surfaces (TBMP consideration required)? **No Receiving Water Body** Yes  No
- 2. Does the project disturb 5 or more acres of soil? **No Receiving Water Body** Yes  No
- 3. Does the project disturb more than 1 acre of soil and not qualify for the Rainfall Erosivity Waiver? **No Receiving Water Body** Yes  No
- 4. Does the project potentially create permanent water quality impacts? Yes  No
- 5. Does the project discharge to a receiving water body? Yes  No

If the answer to any of the preceding questions is "Yes", prepare a Long Form - Storm Water Data Report.

Estimate Construction Start Date: 7/18/2017 Construction Completion Date: 7/17/2018  
 Separate Dewatering Permit (if yes, permit number) Yes  . Permit # \_\_\_\_\_ No   
 Erosivity Waiver Yes  Date: \_\_\_\_\_ No

*This Short Form - Storm Water Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.*

  
 \_\_\_\_\_  
 Susan Lozon, Registered Professional Engineer Date 5/6/15

*I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:*

*[Stamp Required for PS&E only]* For   
 \_\_\_\_\_  
 James Espinosa, Regional SW Coordinator or Designee Date 5/7/2015

<b>CENTRAL REGION PROJECT REPORT DISTRIBUTION LIST</b>			
<b>Division / Program / Office</b>	<b>Project Type</b>	<b>D5</b>	
FHWA	<a href="#">Designated high profile projects only. Refer to Stewardship Agreement</a>	Dominic Hoang	1
HQ Division of Design	All Projects	<a href="#">Design Report Routing</a>	1
HQ Division of Engineering Serv	All Projects	Division of Engineering Services (electronic copy OK)	1
HQ Environmental	All Projects	Bob Pavlik	1
HQ Maintenance	HA22	Leo Mahserelli	1
	HA21	Roger Hunter	
	HA42, HA23	Gerald Kracher	
	STIP	Patti-jo Dickinson	
HQ Traffic Operations	HB4N, HB4C	Matthew Friedman	
HQ Traffic Ops/Traffic Safety Pgm	HB1	Kien Le	
HQ Traffic Ops/Traffic Safety Pgm	HB711	Darold Heikens	
HQ SHOPP Program Advisor	For other prog	<a href="#">HQ Advisors List</a>	
<b>Project Manager</b>	All Projects	Project Manager	1
<b>Design Manager</b>	All Projects	Design Manager	2
<b>Resident Engineer</b>	All Projects	Resident Engineer	1
District Maintenance	All Projects	Lance Gorman	1
	SHOPP	Kelly McClain	1
District Traffic Management	All Projects	Jacques Van Zeventer	1
District Traffic Safety	201.010 & 201.015	Deb Larson	1
District Traffic Operations	Mon	Mark Ballentine	1
District Traffic Operations	SLO/SBT	Steve Talbert	
District Traffic Operations	SB/SCR	Scott Morris	
Region Materials	All Projects	Doug Lambert	1
Region Environmental	All Projects	Susan Schilder	1
Region Right of Way	All Projects	Marshall Garcia	1
District Planning	All Projects	Claudia Espino	1
PPM	All Projects	Linda Araujo	1
District Surveys	All Projects	Jeremy Villegas	1
	Mon/SC/SBt	Bob Fredricks	1
	SB/SLO	Nick Tatarian	
HQ DES/OPPM	Proj w/Structures	Andrew T S Tan	1
District Records	All Projects	Pat Duty (electronic copy only)	0
<b>TOTAL COPIES</b>		<b>District 5 =</b>	<b>21</b>

**RISK REGISTER CERTIFICATION (ACCOUNTABILITY CHECKPOINTS) FORM**  
PPM-0001 (REV 07/2013)

The risk register is to be approved and signed-off by the District Deputies\* listed below for all scalability levels. By signing this form, you are certifying that you have reviewed the risks documented in the register and agree that they have been managed to the extent possible by the PDT.

Project Information:  Capital Project  Major Maintenance Project (Check One) Total Estimated Cost: \$4,195,000

Project ID/District-EA: 0515000007/05-1G380

Project Description: North Greenfield Median Barrier

Project Manager (PM): AARON HENKEL

Project Risk Manager  
(For Risk Level 3 Projects)

No Risk Register Certification Required -- Check box if project is less than \$1 million in total cost and risk register not prepared. Sign below and submit this form with PID, PA&ED, PS&E submittal, and RE Handoff File (as applicable).

Project Manager Signature: *Aaron P. Henkel* Date: 6/3/15

**PA&ED (Required for Capital Projects Only)**

AARON HENKEL  
Project Manager *Aaron P. Henkel* Date: 6/3/15

*For* CHRISTINE COX-KOVACEVICH  
Chief, Central Region Environmental *Christine Cox-Kovacevich* Date: 6-3-15

*For* BRIAN EVERSON  
Chief, Central Region Project Development *Brian Everson* Date: 6-4-15

JOHN LUCHETTA, Acting  
Deputy District Director, Program/Project Management *John Luchetta* Date: 6-16-15

**Prior to PS&E (Required for Capital Projects and Major Maintenance Projects)**

AARON HENKEL  
Project Manager \_\_\_\_\_ Date: \_\_\_\_\_

BRIAN EVERSON  
\*Chief, Central Region Project Development \_\_\_\_\_ Date: \_\_\_\_\_

MARK DER MATOIAN  
Chief, Central Region Construction \_\_\_\_\_ Date: \_\_\_\_\_

JAMIE LUPO  
Acting Chief, Central Region Right of Way \_\_\_\_\_ Date: \_\_\_\_\_

CHRISTINE COX-KOVACEVICH  
\*\*Chief, Central Region Environmental \_\_\_\_\_ Date: \_\_\_\_\_

JOHN LUCHETTA, Acting  
Deputy District Director, Program/Project Management \_\_\_\_\_ Date: \_\_\_\_\_

\*or Deputy District Director, Maintenance & Operations signature for HM Projects designed by the District Maintenance Division  
\*\*or Deputy District Director, Transportation Planning signature for HM Projects environmentally cleared by the District Environmental Stewardship Branch

# MANAGEMENT PLAN

Dist - E.A            05-1G380  
 MON-101-  
 Co-Rte-PM            5349/57.1

Date                    3/18/2015

Project Mngr    Aaron Henkel

Priority						Monitoring and Control	
	Status	ID #	Date Identified Project Phase	Functional Assignment	TI	Responsibility (Risk Manager)	Last date changes made to risk and Comments
	(1)	(2)	(3)	(4)	(5)	(17)	(18)
	Active	1	103/18/15	Environmental Biology	If ur né sc	Larry Bonner, Biologist	3/18/2015
	Active	2	3/18/2015	Environmental Biology	If sp ac bi re pc	Larry Bonner, Biologist	3/18/2015
	Retired	3	3/10/2015	Surveys	Wh ho co pri	Bob Fredericks, Field Surveys	3/10/2015
	Active	4	3/10/2015	Surveys	An de	Bob Fredericks, Field Surveys	3/10/2015
	Active	5	3/10/2015	Surveys	Th esl wh uni of i rec	PM	3/10/2015
	Active	6	3/13/2015	Stormwater	Th per are (i.e. So pro are	PM & DM	3/13/2015
	Active	7	5/4/2015	Design	Th	DM & PM	5/4/2015
	Active	8	5/4/2015	Design/ Right of Way	Pot	DM	5/4/2015
	Active	9	5/4/2015	Design	Wa pro	DM	5/4/2015