

**Project Scope Summary Report
(Roadway Rehabilitation)**
To
Request Programming in 2016 SHOPP

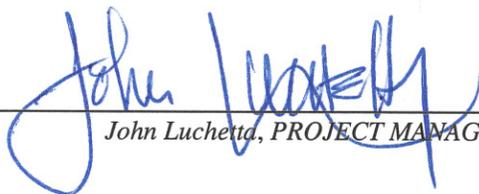
On Route 101
Between PM R36.9
And PM 43.2

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:



*Suzette Shellooe, CENTRAL REGION DIVISION
CHIEF, RIGHT OF WAY*

APPROVAL RECOMMENDED:



John Luchetta, PROJECT MANAGER

APPROVED:

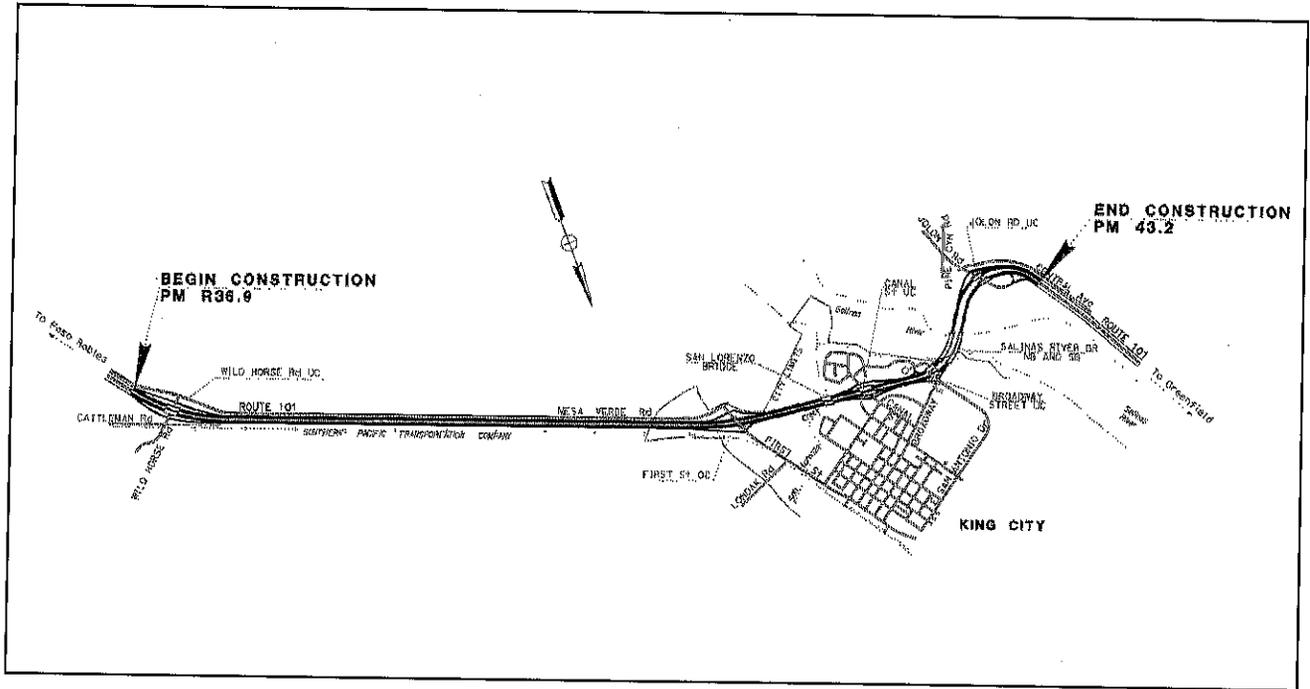


Timothy M. Gubbins, DISTRICT 05 DIRECTOR

6/30/14

DATE

Vicinity Map



On Route 101

Between PM R36.9

And PM 43.2

This project scope summary 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.

Aaron P. Henkel

REGISTERED CIVIL ENGINEER

6/11/14

DATE



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1. INTRODUCTION AND BACKGROUND

Project Description:

The proposed project, to rehabilitate to 2R standards, a four-lane divided freeway facility on Route 101 in Monterey County from 0.4 miles south of Wild Horse Road Under Crossing (UC) to 0.2 miles north of Jolon Road UC. (See Attachment A – Vicinity Map.)

Several improvement projects are being developed along this same corridor of the freeway. This rehabilitation project will address the existing pavement condition and any Americans with Disabilities Act (ADA) features not covered under other projects: CURE Safety Improvements near King City (EA 05-0T990), Salinas River Bridge Seismic Retrofit (EA 05-1C960), SLO/Mon Curb Ramps (EA 05-0R530), and Roadside Safety Improvements (EA 05-1C090).

This project proposes to replace the existing structural section of the freeway, including the ramps, to correct the structural deficiencies as indicated in the Pavement Condition Survey. See Attachment D for the Pavement Management System (PMS) Inventory Data. This work is essential to improve the quality of ride, prevent further deterioration, and reduce the cost of future maintenance. The design speed for this project is 65 miles per hour.

This project proposes widening inside shoulders to 5 feet in areas where the existing shoulder is nonstandard, replacing nonstandard guard railing, upgrading dikes, and drainage inlets as required, as recommended by the safety screening. The project will also replace the existing four curb ramps at the northbound on and off ramp conforms to Broadway Street.

All proposed improvements and permanent construction impacts will be within existing public right of way (R/W), and no temporary construction easements are anticipated, with the exception of two curb ramps at Broadway Street. Two of the curb ramps are within the R/W of the King City.

Project Background:

This section of Route 101 is a four lane divided freeway with two 12 foot lanes, 8 foot outside shoulders, and inside shoulders that vary from 3 to 5 feet. The median width varies between 46 feet and 265 feet. The right of way within the project varies from 175 feet to 1590 feet. There are five interchanges, and two river crossings located within the project limits. They are (listed from south to north), Wild Horse Road, First Street, San Lorenzo Creek, Canal Street, Broadway Street, Salinas River, and Jolon Road. Wild Horse Road, Canal Street, Broadway Street and Jolon Road are undercrossing, while First Street is an overcrossing. The Union Pacific Railroad runs directly adjacent to portion of the northbound lanes of Route 101 from Wild Horse Road to Canal Street.

This project shall rehabilitate the roadway to 2R standards. There are four safety screens that must be passed to qualify for a 2R project. The Safety Analysis was

approved on March 6, 2014, see Attachment M for the Safety Analysis. The criteria for a 2R project have been met.

Project Limits	05-Mon-101 PM R36.9 / R43.2
Number of Alternatives	1
Alternative Recommended for Programming	1
Escalated Capital Outlay Support Estimate	\$10,448,000
Current Capital Outlay Construction Estimate	\$49,800,146
Current Capital Outlay Right-of-Way Estimate	\$15,000
Funding Source	20.xx.201.122
Funding Year	2018 / 2019
Type of Facility	4 lane Freeway
Number of Structures	24 Approach Slabs
SHOPP Project Output	17.2 Lane Miles Rehabilitated
Anticipated Environmental Determination or Document	CEQA CE / Anticipate NEPA CE
Legal Description	In Monterey County In and Near King City From 0.4 Miles South of Wild Horse Road OC To 0.2 Miles North of Jolon Road UC
Project Development Category	5

Note: CE - Categorical Exclusion and Categorical Exemption
 CEQA - California Environmental Quality Act
 NEPA - National Environmental Policy Act

2. RECOMMENDATION

It is recommended that the build alternative be approved and the project be advanced to the Plans, Specifications and Estimate (PS&E) phase by programming into the 2016 State Highway Operation and Protection Program (SHOPP).

3. PURPOSE AND NEED

Purpose:

By replacing the structural section, the quality of ride would be greatly improved, further deterioration would be eliminated, and the cost of future maintenance would be significantly reduced.

Need:

This section of Route 101 is in need of rehabilitation work. This project location was

originally constructed as an expressway and continually upgraded to its current status as a freeway. The previous highway route through King City went from First Street north to Broadway. The realignment of Highway 101 for this stretch was completed in 1970's. The area to the north and south of King City was upgraded into a four lane Highway in 1956 and 1969. Many of the existing features date back to the 1970's. The roadway structural section has exceeded its original useful life due to increased traffic loading and volumes. The existing structural section has undergone several rehabilitation overlays and slab replacements. The freeway surfacing is now experiencing significant distress markers which indicate supporting subgrade failures.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. Roadway Geometric Information

		Existing	Proposed
Facility Location	(Post Mile Limits)	(36.9 / 43.2)	(36.9 / 43.2)
Minimum Curve Radius	Radius (ft)	1500	1500
Through Traffic Lanes	Number of Lanes	4	4
	Lane Width (ft)	12	12
	Type (Flexible, Rigid, or Composite)	Rigid / Composite	Rigid
Paved Shoulder Width	Left (ft)	3-5	5
	Right (ft)	8-10	8-10
Median Width	(ft)	46-99	46-99
Shoulder is a Bicycle Lane	(Y/N)-Width (ft)	N	N
Other Bicycle Lane Width (3)	Width (ft)	n/a	n/a
Bicycle Route	(Y/N)	N	N
Facilities Adjacent to the Roadbed (4)	Code-Width (ft)	n/a	n/a

Notes:

1. Enter existing Post Mile limits (expand as needed for varied geometrics.)
2. Enter proposed Post Mile limits (expand as needed for varied geometrics.)
3. "Other Bicycle Lane Width" is the width of a bicycle lane that is not within the shoulder and is part of the traveled way.
4. Codes for row "Facilities Adjacent to the Roadbed":
 - B – Bicycle path
 - P – Pedestrian walkway
 - B/P – shared bicycle and pedestrian path

L – Landscaped area between the curb and sidewalk

Remarks: None.

4B. Condition of Existing Facility:

1) Traveled Way Data

See Attachment D for the following items for each homogeneous section of freeway mainline lanes:

PMS Category - 7	Priority Classification - 1
International Roughness Index (IRI) -	
Rigid Pavement: 98	Flexible Pavement: 93
3rd Stage Cracking % - 7.8%	Alligator B Cracking % - 0%
Faulting - Yes	Patching % - N/A
Joint Spalls - N/A	Rutting - N/A
Pumping - N/A	Bleeding - N/A
Corner Breaks % - 1.9%	Raveling - N/A

Design to include hydraulic analysis of dikes.

Deflection Study Results (if available): No deflection studies were conducted.

Ramps

Condition: Per 2R standards, the ramps will be reconstructed with this project. Dike will be replaced with the current standard dike which will require minor grading. The outside shoulders are generally narrower than the current design standards and appear to have insignificant observed distress. Many contain concrete curbs and/or gutters.

Deficiencies - Non standard geometrics will not be addressed as part of this project.

2) Shoulder Data

Condition:

The entire inside and outside shoulders for the freeway mainline will be fully reconstructed with this Project due to the observed distress. The inside shoulders will be reconstructed to 5 feet in width, as recommended by the safety screening.

Deficiencies

Outside shoulder deficiencies are associated with nonstandard geometric width and will not be addressed in this project.

3) Pedestrian Facility Data

Facility Type and Location(s) (NB = northbound SB= southbound)	Meets ADA Standards ?	If Facility does not meet ADA Standards, what feature(s) are not ADA compliant?	Status of Each Noncompliant Location
Curb Ramps:	N/A	N/A	N/A
Wild Horse Road	No	4 curb ramps	To be corrected with EA 05-0R530 project
First Street	No	2 curb ramps	To be corrected with EA 05-0R530 project
Canal Street	No	9 curb ramps	To be corrected with EA 05-0R530 project
Broadway Street	No	4 curb ramps at NB on/off ramp	Proposed correction with this project
Jolon Road	N/A	N/A	N/A
Crosswalks:	N/A	N/A	N/A
Others:	N/A	N/A	N/A

Remarks: None

4) Bicycle Path Data

Deficiency	Location
Salinas River Bridge PM R41.4 to R41.8 NB Outside Shoulder approximately 2'	PM R41.29 to PM 43.2

Remarks:

Salinas River Bridge Seismic Retrofit project, construction scheduled for 2017/18, shall widen outside shoulders to 10'.

4C. Structures Information

Structures	Width Between Curbs			Replace Bridge Railings (Y or N)	Vertical Clearance			Work Identified in STRAIN (Y or N)	Replace Bridge Approach Railing (Y or N)	Replace Bridge Approach Slab (Y/N)	Replace Bridge (Y/N)
	Exist	3R Std	Prop		Exist	3R Std	Prop				
Wild Horse Rd UC/ 51-0190L	39'	39'	39'	N	14.8'	15'	14.86'	Y	N	Y	N
Wild Horse Rd UC/ 51-0190R	39'	39'	39'	N	14.9'	15'	14.86'	Y	N	Y	N
First St. OC/ 44-0178	40'	40'	40'	N	15.6 ft	16'	15.6 ft	N	N	Y	N
San Lorenzo Cr/ 44-0179L	32.15'	39'	32.15'	N	N/A	N/A	N/A	N	N	Y	N
San Lorenzo Cr/ 44-0179R	32.15'	39'	32.15'	N	N/A	N/A	N/A	N	N	Y	N
Canal Street UC/ 44-0180L	37'	39'	37'	N	15.3'	15'	15.3'	N	N	Y	N
Canal Street UC/ 44-0180R	37'	39'	37'	N	15.4'	15'	15.4'	N	N	Y	N
Broadway UC/ 44-0127L	74.8'	39'	74.8'	N	15'	15'	15'	N	N	Y	N
Broadway UC/ 44-0127R	37'	39'	37'	N	15.68'	15'	15.68'	N	N	Y	N
Salinas River Br./ 44-0032L	36.7'	39'	36.7'	N	N/A	N/A	N/A	Y	N	Y	N
Salinas River Br./ 44-0032R	31.8'	39'	31.8'	N	N/A	N/A	N/A	Y	N	Y	N
Jolon Rd. UC/ 44-0181L	37'	39'	37'	N	16'	15'	16'	N	N	Y	N
Jolon Rd. UC/ 44-0181R	37'	39'	37'	N	15.4'	15'	15.4'	N	N	Y	N

Remarks:

See Attachment H – STRAIN Data

4D. Traffic DataSegment PM R37.1 to PM R40.0Present Year ADT 27,800Construction Year ADT 29,72210-Year ADT 36,129DHV 2,12520-Year ADT 42,536D 52%% Trucks 11.6%*[◊]T.I. (10-Year) 11*[⊛]ESAL (10-Year) 5,856,239*[◊]T.I. (20-Year) 12*[⊛]ESAL (20-Year) 12,961,140

* Must correlate with T.I. in Materials Report

◊ Traffic Indices

⊛ Equivalent Single Axle Loads

Safety Field Review: Safety Field Review were conducted January of 2014.

The actual fatal collision rate is higher than the average fatal collision rate for similar highways. The fatal plus injury collision rate is also higher than the State average for similar highways.

Latest 3-Year Collision Data:

Route 101 - PM R37.1/R42.39 (units in #/MVM)

	Fatal	Fatal + Injury	Total
Actual	0.028	0.22	0.72
Average	0.004	0.16	0.45

January 1, 2009 through December 31, 2011

There were 76 collisions (20 injury, 3 fatal, 30 multi vehicle, 14 wet, and 22 dark) reported within the project limits. A review of the types of collisions and the primary collision factors found the following:

TYPES OF COLLISIONS

Head-on	1	Sideswipe	14
Rear End	10	Broadside	1
Hit Object	37	Other	13

PRIMARY COLLISION FACTOR

Influence of Alcohol	5	Improper Turn	30
Speeding	23	Other Violations	13
Other Than Driver	4	Unknown	1

The following are the Objects Hit and the number of times of occurrence: Fence (4), Object in road (1), Pole/ Post (6), Metal Beam Guard Rail (8), Dike/ Curb (4), Side of Bridge Rail (10), Temporary cones (1), Barrier (3), and Unknown (2).

Of the 20 ramps reviewed, 16 returned collision history that was lower than the statewide average for similar facilities. For these ramps, further analysis does not appear to be necessary at this time. The other four ramps are discussed below:

Northbound on-ramp from First St	2 - Speeding caused an improper turn.
Northbound on-ramp to Canal Street	1 - A vehicle after stopping released the break causing a rear end accident.
	1 -Improper turn entering intersection before it was safe.
Northbound on-ramp from Broadway	1 - Mislabeled sideswipe occurred on Route 101 in the Northbound lanes.
Southbound off-ramp to Jolon Road	3 - Vehicle failed to stop in time to avoid a rear end collision.

Corrective Strategy: Recommendations for the project are based upon the Safety Analysis dated February 3, 2014.

Safety enhancement recommendations for the project limits are listed below:

- 1) ADA ramps at Broadway on and off-ramps. Check R/W limits for possible inclusion of sidewalks within R/W. Check with District 5 ADA coordinator for further details and limits of ADA work. Jolon Road does not require ADA curb ramps at this time.
- 2) Remove curb and dike throughout project limits that do not have a drainage function as well as replace all curb and dike that are not standard height. Some re-grading will be necessary at locations with existing 8 to 12 inch dike.
- 3) Remove curb at on and off-ramp gores.
- 4) Refresh all pavement delineation including aircraft markings within Caltrans R/W.
- 5) Widen and repair inside shoulders on Route 101 to 5 feet. Install rumble strip and safety edge where dike or curb is not present. Place shoulder backing as required.
- 6) Repair and/ or overlay outside shoulders and install rumble strip and safety edge where dike or curb is not present. Place shoulder backing as required.
- 7) Install Safety Edge where dike or curb is not installed.
- 8) Retain vertical clearance at First Street overcrossing structure.
- 9) Raise existing Metal Beam Guard Rail (MBGR) to 29 inches, or replace with Midwest Guard Rail System (MGS) railing throughout project limits.
- 10) Install anchor blocks, Midwest Guardrail System Transition Railing (Type WB-31) connections, and terminal sections at all approach and departure bridge rails and concrete barriers in accordance with Revised Standard Plan RSP A77Q1-5. i.e. Midwest Guardrail System Typical Layouts for Structures Approach.
- 11) Install anchor blocks and Single Thrie Beam (STB) connections at all bridge connections and concrete barrier where thrie beam is existing or being utilized.
- 12) Install "Curve Sharpens" sign in head on position (facing south) from Route 101 at merge section of North Bound (NB) Broadway on-ramp, and north of existing Chevron signs, PM 41.3. Contact Traffic Safety for signage size and placement details.
- 13) Replace median MBGR with MGS railing at First Street overcrossing in accordance with RSP A77R1 Midwest Guardrail System Typical Layouts for Fixed Objects Between Separate Roadbeds (Two Way Traffic). Placement of MGS railing may need to be extended due to drainage feature north of First Street Overhead columns in median.

- 14) Install WB connection, approximately 1500 feet of MGS railing, and anchor block with WB connections on inside and outside shoulders, NB between Salinas River Bridge and Jolon Road U.C.

Safety enhancement recommendations for ramps are listed below:

- 1) First Street NB off-ramp and First Street: Install anchor block and WB connection with terminal end treatment for southwest corner of First Street Over Crossing (O.C.)
- 2) First Street NB off-ramp: Reset two utility boxes, right shoulder.
- 3) First Street NB on-ramp, North Easy (NE) corner and on First Street: Replace MBGR with MGS and extend approximately 1000 feet to 120 feet north of over side drain, right shoulder, near ramp inlet.
- 4) Canal Street NB on-ramp: Remove approximately 500 feet of 8 to 12 inch dike and re-grade slope.
- 5) Canal Street NB on-ramp: Reset utility box right shoulder.
- 6) Broadway NB off-ramp: Reset utility box right shoulder.
- 7) Broadway NB off-ramp: Replace 2 posts (sign) and make breakaway, at ramp terminus, right shoulder.
- 8) Broadway NB off-ramp: Check stop sign (R1-1) for proper height of 7 feet. Replace if necessary.
- 9) Broadway NB on-ramp: Extend MBGR, or MGS if new rail to shield utility pole near ramp inlet, right shoulder.
- 10) Jolon Road South Bound (SB) on-ramp to Salinas River Bridge: Replace MBGR with MGS railing and extend up to 200 feet north, right shoulder. Connect to Salinas River Bridge with Anchor block and WB connections, right and left shoulders.
- 11) Canal Street SB off-ramp: Reset utility box, right shoulder near gore.
- 12) First Street NB off-ramp: Reset utility box, right shoulder near illuminare.

4E. Materials

A Materials Report was prepared by Central Region Materials Lab that recommended several overlay alternatives and several reconstruct structural section alternatives for both a 20 year and 40 year design life. The following mainline options were provided (See Attachment E – Materials Report for more details):

40-year Overlay			
<u>Mainline</u>			
0.10' HMA or RHMA-O	0.10' RHMA-O	0.95' JPCP	0.85' CRCP
0.20' HMA (pm)	0.20' RHMA-G	0.10' HMA (LC)	0.10' HMA (LC)
0.50' HMA	0.50' HMA		
Fabric Interlayer	Fabric Interlayer		
0.10' HMA (LC)	0.10' HMA (LC)		

40-year Reconstruction		
<u>Mainline</u>		
0.10' HMA or RHMA-O	0.90' JPCP	0.85' CRCP
0.20' HMA (PM)	0.25' HMA	0.25' HMA
0.40' HMA	1.35' ASB	1.35' ASB
0.55' LCB		
1.80' CL1 ASB		

40-year Reconstruction		
<u>Ramps</u>		
Wild Horse Road First Street Jolon Road	All Other Ramps	
	Traveled Way	Shoulder
0.10' HMA or RHMA-G	0.10' HMA or RHMA-G	0.35' HMA
0.20' HMA (PM)	0.20' HMA (PM)	0.90' AB
0.40' HMA	0.25' HMA	0.60' CL 1 ASB
0.55' LCB	0.50' LCB	
1.80' CL 1 ASB	1.25' CL 1 ASB	

20-year Overlay			
<u>Mainline</u>			
0.40' HMA	0.20' RHMA-G	0.85' JPCP	0.80' CRCP
Fabric Interlayer	Fabric Interlayer	0.10' HMA (LC)	0.10' HMA (LC)
0.15' HMA (LC)	0.15' HMA (LC)		

20-year Reconstruction		
Mainline		
0.55' HMA	0.80' JPCP	0.75' CRCP
0.50' LCB	0.25' HMA	0.25' HMA
1.70' CL1 ASB	1.35' ASB	1.35' ASB

20-year Reconstruction		
Ramps		
Wild Horse Road First Street Jolon Road	All Other Ramps	
	Traveled Way	Shoulder
0.50' HMA	0.40' HMA	0.30' HMA
0.50' LCB	0.50' LCB	0.35' AB
1.50' CL 1 ASB	1.05' CL 1 ASB	0.70' CL 1 ASB

Acronyms:

JPCP	Jointed Plain Concrete Pavement
CRCP	Continuously Reinforced Concrete Pavement
HMA	Hot Mix Asphalt
HMA (LC)	Hot Mix Asphalt (Leveling Course)
HMA (PM)	Hot Mix Asphalt (Polymer Modified)
LCB	Lean Concrete Base
ASB	Aggregate Subbase
RHMA-O	Rubberized Hot Mix Asphalt Open Graded
RHMA-G	Rubberized Hot Mix Asphalt Gap Graded

5. CORRIDOR AND SYSTEM COORDINATION

A. Route Description and Functional Classification: Route 101 is California's major north-south coastal route that is considered a vital asset to the national, state and local economies. In Caltrans District 05, Route 101 extends approximately 270 miles starting at the Santa Barbara/Ventura County line to the San Benito/Santa Clara County line. The segment of Route 101 within Caltrans District 05 accommodates interregional, regional and urban and rural traffic with a wide array of trip purposes. Route 101 is a Federal Aid Primary Route and is designated Freeway and Expressway. The highway is part of the National Highway System (NHS). The NHS is comprised of the Interstate System and other urban and rural principal arterials that are essential for interstate and regional commerce and travel, national defense, intermodal transfer facilities, and trade. The Department of Defense, in cooperation with Caltrans, has identified Route 101 as a Strategic Highway Corridor Network

(STRAHNET) route, meaning it is considered essential to national defense for facilitating the movement of troops and equipment. Route 101 is part of the Interregional Road System (IRRS) and is designated a Terminal Access Route to the National Truck Network, and is a State Highway Extra Legal Load (SHELL) route and a Surface Transportation Assistance Act (STAA) route. Route 101 is identified as a High Emphasis Route and Focus Route in the Caltrans Interregional Transportation Strategic Plan (ITSP) which makes this route a high priority for programming to address increased interregional travel demand with an emphasis towards goods movement, recreational, and lifeline needs. Route 101 serves as an alternative route for a portion of I-5, the state's main north-south route. Within the project limits, Route 101 is a freeway comprised of four lanes.

B. Traffic Movement: Within the project limits a steady increase in Annual Average Daily Traffic (AADT) growth is expected. The 2012 AADT was estimated at 20,014 with an average truck percentage of 11.3%. The 2035 AADT is expected to increase to 31,714. Route 101, within the project limit, accommodates significant amounts of interregional traffic, including commercial and agricultural trucking, tourist, and business traffic. The route also carries heavy regional commuter, recreational and business-related traffic.

C. Planning: The Transportation Concept Report (TCR) of 2013 predicts no congestion exceeding capacity within the project limits for the horizon year of 2035. Note that route 101 is designated freeway within the project limits. However, the 2013 TCR proposes the conversion of the expressway portions of Route 101 between King City and Airport Boulevard to freeway to accommodate the projected increase in AADT by the year 2035 in that stretch of Route 101. This project does not preclude the ultimate design of this facility.

This project involves the County of Monterey, and King City. The Association of Monterey Bay Area Governments (AMBAG) is the Metropolitan Planning Organization (MPO) and the Transportation Agency for Monterey County (TAMC) is the Regional Transportation Planning Agency for this project.

6. ALTERNATIVES

6A. Rehabilitation strategy:

The viable alternative proposes to replace the existing structural section of the freeway to correct the structural deficiencies as indicated in the Pavement Condition Survey. This work is essential to improve the quality of ride, prevent further deterioration, and reduce the cost of future maintenance. The design speed for project is 65 miles per hour.

A Life-Cycle Cost Analysis was completed for this project. There are five alternatives and between Wild Horse Road and First Street, and four alternatives between First Street and Jolon Road. 40yr CRCP-reconstruct was recommended

based on the lowest Present Value User Cost even though it slightly higher Agency Cost than the 40-year JPCP alternative. (see attachment I).

The project proposes widening inside shoulders to 5 feet in areas where existing shoulder is non-standard, replacing guard railing, replacing ramp structural sections, upgrading dikes, raise drainage inlets as required and adjust electrical pull boxes. The project will also replace the existing four curb ramps at the northbound on and off ramp conform to Broadway.

6B. Design exceptions:

This is a pavement-focused project as defined in Design Information Bulletin (DIB) 79, and under 2R guidelines there is no expectation for it to correct or document existing nonstandard features.

6C. Environmental compliance:

This project is Categorical Exemption, under California Environmental Quality Act (CEQA). It is anticipated to get a Categorical Exclusion (CE) for National Environmental Policy Act (NEPA).

6D. Hazardous waste disposal site required? If yes, where are sites?

A hazardous waste disposal site may be required if there is excess soil from the project that exceeds regulatory criteria for lead. The disposal site may be within or outside of California. There will be treated wood waste from MBGR wood post within the project that will require disposal. The treated wood waste will be dealt with per Caltrans Standards.

6E. Other agencies involved (permits/approvals from Fish and Game, Corps of Engineers, Coastal Commission, etc.):

The project does not require any permits or approvals from outside agencies.

6F. Material and/or disposal site need and availability?

No materials or disposal site needs and availability have been identified

6G. Highway planting and irrigation:

The project will have minimal soil disturbance. The areas of disturbed soil will be treated with erosion control material.

6H. Roadside design and management

The MBGR will be replaced with Midwest Guardrail System and approved end treatments along with vegetation control.

Dikes and curbs will be reinstalled with correct type and any will be remove that do not have a drainage function.

Safety edge and rumble strips will be reinstalled where dike or curb is not present.

The installation will be done in accordance with Caltrans Standards and Traffic Safety recommendations. Shoulder backing will be at a minimum since there will be no profile correction.

6I Storm water compliance:

A Storm Water Data Report was prepared (see Attachment L) for this project that specifies which Best Management Practices (BMPs) would be incorporated into the project plans and specifications.

Temporary construction site BMPs would be required as part of a Storm Water Pollution Prevention Plan developed by the contractor as a contract item. This plan may include Temporary Soil Stabilization, Temporary Sediment Control, Tracking Control, Wind Erosion Control, Non-Storm Water, and Waste Management and Materials Pollution Controls BMPs. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking.

Design pollution prevention BMPs for erosion control would concentrate on preservation of existing vegetation, use of ground cover vegetation to stabilize newly constructed slopes, bank protection adjacent to structures, and energy dissipation devices at culvert outlets.

Since this project proposes to add more than 1 acre of new impervious surfaces permanent storm water treatment BMPs would be incorporated to the maximum extent practicable. Treatment BMP techniques would concentrate on the use of biofiltration swales (stable grass-lined ditches) to convey surface runoff, and biofiltration strips to intercept overland flow. Infiltration devices would not be implemented in the project due to high groundwater levels in most locations. If site specific locations indicate low groundwater and soils are found to be appropriate for infiltration, infiltration devices would be evaluated for installation. Gross solids removal devices are not applicable since the area is not litter impaired and traction sand traps are applicable in snow country only.

As per the Storm water Data Report (SWDR) page 9 preliminary project risk is Level 2. A final risk level determination would be made during the design phase of the project. Preliminary calculations show this project will have a 3.4% increase of Net New Impervious Surfaces.

6J. Right of way and utility issues:

All proposed improvements and permanent construction impacts would be within existing public right of way. No temporary construction easements are anticipated. No utility relocation is anticipated at present. However, potholing is anticipated primarily for 4 or 5 transverse crossing along Route 101 of communication lines, and an 8" gas line at the Jolon Road intersection.

6K. Railroad involvement:

The Union Pacific Railroad runs directly adjacent to portion of the northbound lanes of Route 101 from Wild Horse Road to Canal Street. The single track is used by both freight trains and Amtrak passenger trains. Rehabilitation of the freeway will be accomplished without affecting the railroad.

6L. Salvaging and recycling of hardware and other non-renewable resources:

The project would incorporate recycling and waste diversion techniques by promoting the reuse of materials such as steel, road base, concrete, asphalt-concrete, etc. to the extent feasible. Where possible, measures would be taken to remove and reuse existing metal beam guardrail and guide signs within the project limits. The project would comply with Caltrans policy DD-17 Recycling Asphalt Concrete, with respect to the reuse of hardscaped materials.

6M. Prolonged temporary ramp closures:

It is proposed to reconstruct each ramp. The ramp reconstruction will be done at the same time as the number two lane is reconstructed that services that ramp. The ramp reconstruction will be done mid week and open on weekends per recommendations from Traffic Operations.

6N. Recycled materials:

The following "green" practices and materials would be used in the project as part of highway planting and erosion control work: compost and soil amendments derived from recycled wood products and green waste materials; fiber produced from recycled pulp such as newspaper, chipboard, cardboard; and wood mulch made from green waste and/or clean manufactured wood or natural wood.

6O. Local and regional input:

King City and the County of Monterey will be consulted during the design phase for input.

6P. What are the consequences of not doing this entire project?

If this project does not move forward to PS&E, the lanes will further deteriorate. The further they deteriorate will end up costing more maintenance dollars.

6Q. List all alternatives studied, cost, reasons not recommended, etc.:

The rejected alternative for this project is the "No Build" alternative. This was rejected due not addressing the condition of the existing structural section condition.

7. TRANSPORTATION MANAGEMENT

7A. Transportation Management Plan

All projects are required to include a Traffic Management Plan (TMP) to address potential impacts on traffic flow during construction. This project would be designed to provide one lane in each direction on Route 101 throughout construction. Significant traffic impacts are not anticipated, although some on- and off-ramps would be closed during part of the construction duration. Coordination with other nearby projects that may be under construction during the same time frame is especially relevant for this project. The TMP for this project may include the following items:

- Public Awareness Campaign: Flyers, brochures, press releases, web site, and advertising, as required to inform travelers of the project
- Construction Zone Enhanced Enforcement Plan (COZEEP): Additional CHP patrol of the construction zone during peak travel times to ensure construction zone safety
- TMP Strategies: Temporary facilities such as changeable message signs and ramp detours

The costs for the TMP are included in the estimates for this project and generally represent 1-2% of the total construction cost. More detailed TMP strategies would be developed during the design phase of the project.

7B. Vehicle Detection Systems

The current Ramp Meter Development Plan (RMDP) was developed by the Division of Traffic Operations in December 2013 and identifies all ramp meter locations that are either currently in operation or are planned for operation within the next ten years. The 2013 RMDP does not identify the segment of Route 101 within the project limits as a candidate for ramp metering. Therefore, no ramp meters are proposed for this project.

The Central Coast Intelligent Transportation System Strategic Deployment Plan was developed for District 5 in cooperation with AMBAG, the California Highway Patrol, and other regional transportation planning agencies in the District. This project would protect and perpetuate the current camera and detector system on the through lanes.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

CEQA determination is a CE. A NEPA Categorical Exclusion will be processed once project is amended into the Federal Transportation Improvement Program (FTIP).

Date Approved: 4/2/2014

9. PROJECT ESTIMATE

Pavement Work

	<u>Lane Miles</u>	<u>Number</u>	<u>Estimate</u>
Total Lane-Miles of Rehabilitation	<u>17.2</u>		
Flexible Overlay of Flexible Pavement (recycle not included) (1, 2)	<u>N/A</u>		
Rigid Overlay of Flexible Pavement	<u>N/A</u>		
Hot Recycled AC (1, 2)	<u>N/A</u>		
Cold Recycled AC (1, 2)	<u>N/A</u>		
Reconstruct Lane(s)	<u>17.2</u>		<u>\$25,272,926</u>
Crack Seal & Flexible Overlay of Rigid Pavement (2)	<u>N/A</u>		
Rigid Overlay of Rigid Pavement (2)	<u>N/A</u>		
Rigid Pavement Rehabilitation (list appropriate work type: grind, slab replacement, spall repair, grout & seal random cracks, lane replacement, joint seal, etc.)	<u>N/A</u>		
Ramps	<u>reconstruct</u>	<u>20</u>	<u>\$6,686,825</u>
OC/UC and Bridge Approaches (list appropriate work type: grind, replace, etc.)			
Edge Drain (side mi)	<u>N/A</u>		
Subtotal			<u>\$31,959,751</u>

Notes:

1. Include cost to remove and replace localized failed areas.
2. Include cost of shoulder backing material for increased thickness at shoulder edge, as needed.

STRAIN Work

	<u>Estimate</u>
Wild Horse Road - Approach Slabs	<u>\$360,000</u>
San Lorenzo Creek - Approach Slabs	<u>\$360,000</u>
Canal Street - Approach Slabs	<u>\$360,000</u>
Broadway Street - Approach Slabs	<u>\$360,000</u>
Salinas River - Approach Slabs	<u>\$360,000</u>
Jolon Road - Approach Slabs	<u>\$360,000</u>

Subtotal		\$2,160,000
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Does the Project Include:

	Yes/No	Estimate
Main Line Widening (lanes and/or shoulders)	Yes	\$384,849
Bridge Widening and Rail Upgrade	No	
Included in Project		
Deferred (why)		
Bridge Rail Upgrade - Without Widening	No	
Included in Project		
Deferred (why)		
Vertical Clearance Adjustment	N/A	
Drainage Rehabilitation		
(list appropriate work type: roadbed surface, roadside off-site, subsurface, etc.)	Yes	\$20,000
Pedestrian Facilities	Yes	
Alternations Required (list): ADA Ramps	4	\$20,000
Traffic Control	Yes	\$1,665,675
Other		
(identify: e.g., mobilization, hazardous waste compliance, etc.)	Yes	\$1,341,500
Subtotal		\$3,432,024

Safety

	Yes/No	Estimate
Rumble Strip	Yes	\$34,800
Superelevation/Cross Slope Correction	No	
Vertical Alignment	No	
Horizontal Alignment	No	
Left/Right-Turn Storage/Widening/Lengthening	No	
Signal Upgrade	No	
Median Barrier (state type: e.g., PCC, Thrie Beam)	No	
Metal Beam Guardrails (new)	Yes	\$597,250
Concrete Guardrail (new)	No	

Roadside Cleanup	Yes	\$10,000
Gore Cleanup	No	
Electroliers	No	
Subtotal		\$642,050
<u>Roadside Management</u>		
	<u>Yes/No</u>	<u>Estimate</u>
Gore Area Pavement	No	
Pavement beyond Gore Area	No	
Miscellaneous Paving	No	
Maintenance Vehicle Pull-outs	No	
Off-Freeway Access (gates, stairways, etc.)	No	
Roadside Facilities	Yes	\$252,000
Subtotal		\$252,000
<u>Totals</u>		<u>Estimate</u>
Pavement Work Subtotal		\$31,959,751
STRAIN Work Subtotal		\$2,160,000
Does the Project Include Subtotal		\$3,432,024
Safety Subtotal		\$642,050
Roadside Management Subtotal		\$252,000
Sum of Subtotals		\$38,445,825
10% Contingency		\$3,810,012
Mobilization		\$3,810,012
Minor Items		\$1,814,291
Supplemental Work		\$1,905,006
TOTAL PROJECT ESTIMATE		\$49,785,146

Remarks: See Attachment C –PSSR Cost Estimate

10. FUNDING/PROGRAMMING

It has been determined that this project is eligible for federal-aid funding.

Capital Outlay Support and Project Estimates

Fund Source	Fiscal Year Estimate				
	2016/17	2017/18	2018/19	2019/20	Total
20.xx.201.122					
Component	In thousands of dollars (\$1,000)				
PA&ED Support	0	0	0	0	0
PS&E Support	2,109	0	0	0	2,109
Right-of-Way Support	78	0	0	0	78
Construction Support	0	0	8,261	0	8,261
Right-of-Way	19	0	0	0	19
Construction	0	0	60,515	0	60,515
Total	2,206	0	68,776	0	70,982

Programming in the 2016 SHOPP 201.122. Support costs escalated 7% per year. Capital Escalated 5% per year. Right of Way Capital Escalated 5% per year.

The support cost ratio is 17%.

11. SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	July 1, 2016
PA & ED	M200	June 30, 2016
PROJECT PS&E TO DISTRICT	M377	June 1, 2018
PROJECT PS&E	M380	February 1, 2019
RIGHT OF WAY CERTIFICATION	M410	May 15, 2018
READY TO LIST	M460	December 3, 2018
ADVERTISE	M480	March 1, 2019
AWARD	M495	May 1, 2019
APPROVE CONTRACT	M500	June 3, 2019
CONTRACT ACCEPTANCE	M600	July 15, 2021
END PROJECT	M800	January 15, 2023

12. RISKS

The highest priority risk identified involves programming. The baseline schedule assumes that programming into the 2016 SHOPP and 2015 FTIP will be successful and that construction work can begin July 2018. If programming is successful, the baseline schedule will have to be modified. Should programming into the SHOPP be successful but not the FTIP, State only funds will be requested.

The next priority of risk is related to environmental issues. Two risks were identified. The project location will need to be surveyed for the presence of sensitive plant

species. Also, the construction schedule will have to be monitored to ensure that plant removal or disturbance does not overlap with the bird nesting season which occurs from February 15th to September 1st each year. Possible impacts of these risks are schedule delay and cost increase. The project team will anticipate these risks and mitigate their occurrence by initiating botanical surveys as early as possible and monitoring the construction schedule. It is believed that mitigation of these risks to an acceptable level is possible.

No utility impacts are anticipated.

No additional risks have been identified.

Please refer to the Risk Management Plan (see attachment K) for additional detail.

13. 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.

14. PROJECT REVIEWS

Scoping team field review _____	Date	4/8/2014
Scoping team field review attendance roster attached.		
District Program Advisor _____ <i>Kelly McClain</i>	Date	6/9/2014
Headquarters SHOPP Program Advisor _____ <i>Leo Mahserelli</i>	Date	6/9/2014
District Maintenance _____ <i>Kelly McClain</i>	Date	6/9/2014
Headquarters Design Coordinator _____ <i>Paul Gennaro</i>	Date	6/9/2014
Project Manager _____ <i>John Luchetta</i>	Date	6/9/2014
FHWA _____	Date	
District Safety Review _____ <i>Mark Ballentine</i>	Date	2/21/2014
Constructability Review _____	Date	
OCER _____ <i>JoAnne Engelmann</i>	Date	6/4/2014
Other _____	Date	

15. PROJECT PERSONNEL

John Luchetta, Project Manager	(805) 549-3175
John Fouche, Design Manager	(805) 549-3330
Aaron Henkel, Design Engineer	(805) 549-3085
Matt Fowler, Environmental Manager	(805) 542-4603
Dan Miller, Construction Manager	(805) 542-3481
Marshal Garcia, Right of Way Manager	(805) 549-3471
Chris Shaeffer, R/W Utilities	(805) 549-3577
Bob Fredricks, Surveys Manager	(805) 748-3876
Mark Ballentine, Traffic Safety	(805) 549-3024
Pete Riegelhuth, Storm Water	(805) 549-3375

16. ATTACHMENTS (Number of Pages)

List of Attachments

Attachment A - Vicinity Map

Attachment B - Typical Sections

Attachment C - Cost Estimate

Attachment D - PMS Inventory Data

Attachment E - Materials Report

Attachment F - Right of Way Data Sheet

Attachment G - Environment Document

Attachment H - STRAIN Data

Attachment I - Life Cycle Cost Analysis

Attachment J - Traffic Management Checklist

Attachment K - Risk Management Plan

Attachment L - Storm Water Data Report

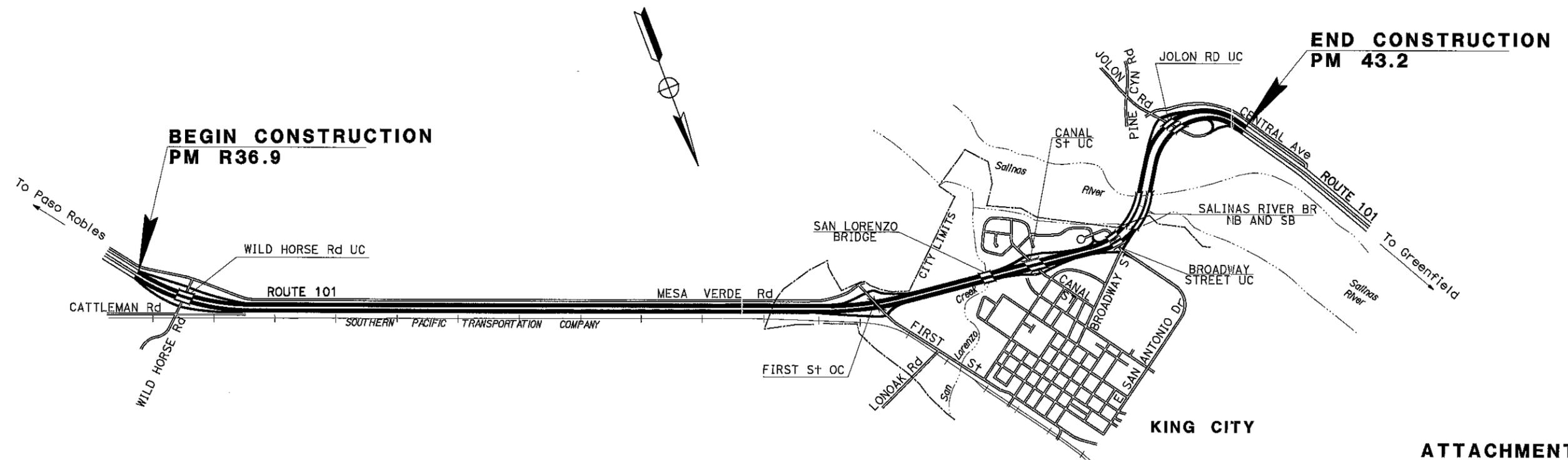
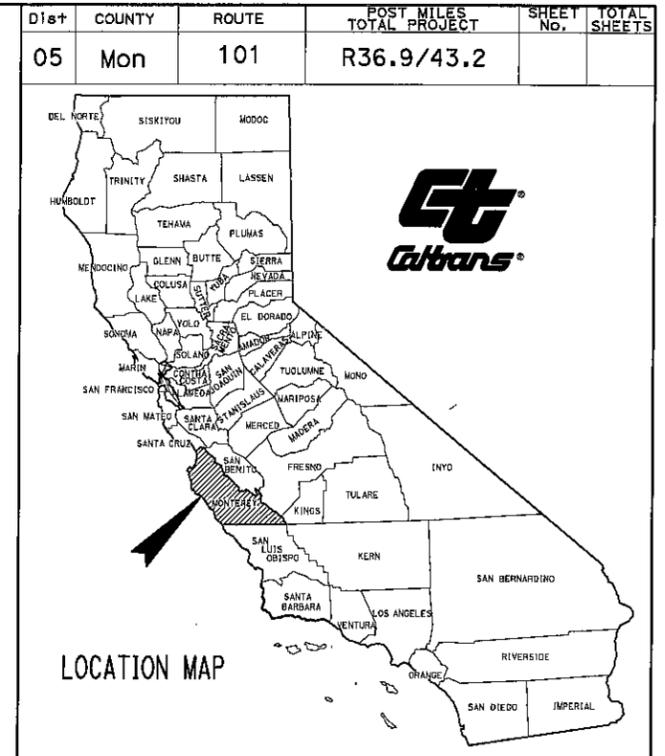
Attachment M - Safety Analysis

Attachment N - Scoping Team Field Review Attendance

Attachment O - Distribution List

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY**
 IN MONTEREY COUNTY
 IN AND NEAR KING CITY
 FROM 0.4 MILES SOUTH OF WILD HORSE ROAD OC
 TO 0.2 MILES NORTH OF JOLON ROAD UC

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER

DESIGN ENGINEER

ATTACHMENT A

PROJECT ENGINEER _____ DATE _____
 REGISTERED CIVIL ENGINEER



PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No.	05-1F750
PROJECT ID	0514000050

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	101	R36.9/43.2		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NOTES:

- DIMENSIONS OF STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATIONS ARE SHOWN ON THE SUPERELEVATION DIAGRAMS.

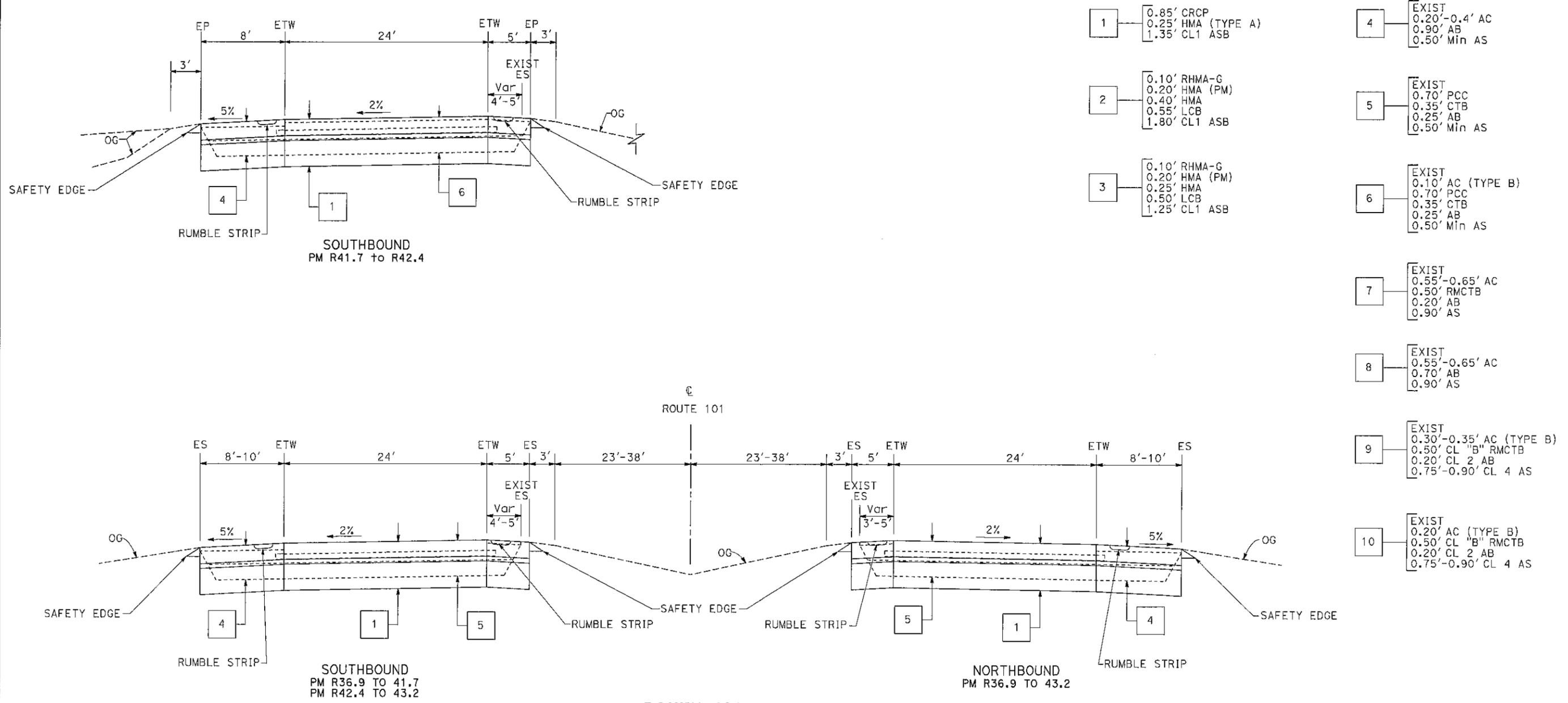
ABBREVIATIONS:

- HMA (PM) - HOT MIX ASPHALT (POLYMER MODIFIED)
 CRCP (RSC) - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT (RAPID SET CONCRETE)
 RMCTB - ROAD MIXED CEMENT TREATED BASE

DESIGN DESIGNATION

ADT (2012)	27,800	D	52%
ADT (2035)	42,536	T	11.6%
DHV	2,125	V	65 mph
ESAL	12,961,140	TI ₂₀	12

PAVEMENT CLIMATE REGION: INLAND VALLEY



- | | | | |
|---|---|----|--|
| 1 | 0.85' CRCP
0.25' HMA (TYPE A)
1.35' CL1 ASB | 4 | EXIST
0.20'-0.4' AC
0.90' AB
0.50' Min AS |
| 2 | 0.10' RHMA-G
0.20' HMA (PM)
0.40' HMA
0.55' LCB
1.80' CL1 ASB | 5 | EXIST
0.70' PCC
0.35' CTB
0.25' AB
0.50' Min AS |
| 3 | 0.10' RHMA-G
0.20' HMA (PM)
0.25' HMA
0.50' LCB
1.25' CL1 ASB | 6 | EXIST
0.10' AC (TYPE B)
0.70' PCC
0.35' CTB
0.25' AB
0.50' Min AS |
| | | 7 | EXIST
0.55'-0.65' AC
0.50' RMCTB
0.20' AB
0.90' AS |
| | | 8 | EXIST
0.55'-0.65' AC
0.70' AB
0.90' AS |
| | | 9 | EXIST
0.30'-0.35' AC (TYPE B)
0.50' CL "B" RMCTB
0.20' CL 2 AB
0.75'-0.90' CL 4 AS |
| | | 10 | EXIST
0.20' AC (TYPE B)
0.50' CL "B" RMCTB
0.20' CL 2 AB
0.75'-0.90' CL 4 AS |

TYPICAL CROSS SECTIONS

ATTACHMENT B

NO SCALE X-1

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Mcn-101
PM: PM R30.9/43.2
EA: 05-1F750K
Program Code: 20.xx.201.122

PROJECT DESCRIPTION:
Pavement Rehabilitation

Limits: In Monterey County In and Near King City From 0.4 Miles South of Wild Horse Road OC to 0.2 Miles North of Jolon Road UC.

Proposed Improvement:
(Scope of Work)

Rehabilitate the travel way to a 40 year life, reconstruct shoulders, reconstruct ramps, upgrade metal beam guardrail and replace 4 ADA ramps.

Alternative: Replace the Existing Structural Section

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	Total of Sections 1 - 10 shown above	\$ 47,625,146
TOTAL STRUCTURES ITEMS		\$ 2,160,000
	SUBTOTAL CONSTRUCTION COSTS	\$ 49,785,146
TOTAL RIGHT OF WAY ITEMS (Not Escalated)		\$ 15,000
	TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 49,800,146

Reviewed by
District Program Manager:

Kelly J. Miller
(Signature)

6/25/14
(Date)

Approved by Project Manager:

[Signature]
(Signature)

6/25/14
(Date)

Phone Number:

Attachment C
Form used 1/01/08

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Mon-101
 PM: PM R36.9/43.2
 EA: 05-1F750K
 Program Code: 20.xx.201.122

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	238,400	CY	\$15	\$3,576,000	
Roadway Excavation Type Z-2	2,040	CY	\$150	\$306,000	
Imported Borrow		CY	\$0	\$0	
Clearing & Grubbing	1	LS	\$10,000	\$10,000	
Develop Water Supply			\$0	\$0	
Stepped Slopes and Slope			\$0	\$0	
Rounding (Contour Grading)			\$0	\$0	
Asphalt Fluctuation Index		LS	\$0	\$0	
Tack Coat	210	ton	\$650	\$136,500	
Rumble Strip	1,160	Sta	\$30	\$34,800	
Shoulder Backing		ton	\$0	\$0	
			Subtotal Earthwork:		\$4,063,300
<u>Section 2 - Pavement Structural Section*</u>					
Grind PCC Pmnt Depth		SQYD	\$0	\$0	
Continuously Reinforced Concrete Pavement	52,200	CY	\$180	\$9,396,000	
Precast Concrete Pavement Panels	9,480	CY	\$750	\$7,110,000	
Rubberized Hot Mix Asphalt (Gap Graded)	4,660	Ton	\$105	\$489,300	
Hot Mix Asphalt Concrete (PM)	9,320	Ton	\$105	\$978,600	
Lean Concrete Base	12,250	CY	\$130	\$1,592,500	
Hot Mix Asphalt Concrete (Type A)	52,620	Ton	\$90	\$4,735,800	
Aggregate Base		CY	\$0	\$0	
Aggregate Subbase	134,130	CY	\$30	\$4,023,900	
Seal Pavement Joint		SY	\$2.8	\$0	
ADA Ramps	4	LS	\$5,000	\$20,000	
Remove and place HMA Dike		LF	\$0	\$0	
			Subtotal Pavement Structural Section:		\$28,346,100
<u>Section 3 - Drainage</u>					
Large Drainage Facilities		LS	\$0	\$0	
Storm Drains		LS	\$0	\$0	
Pumping Plants		LS	\$0	\$0	
Project Drainage	1	LS	\$20,000	\$20,000	
			Subtotal Drainage:		\$20,000

* Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Mon-101
 PM: PM R36.8/43.2
 EA: 05-1F750K
 Program Code: 20.xx.201.122

<u>Section 4 - Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Temporary End Treatment	4	EA	\$5,000	\$20,000	
Temporary Railing (Type K)	115,000	LF	\$10	\$1,150,000	
Midwest Guardrail System	8,500	LF	\$30	\$255,000	
Transition Railing (Type Wb)	24	EA	\$3,500	\$84,000	
End Anchor Assembly (Type Sft)	26	EA	\$625	\$16,250	
Vegetation Control (Minor Concrete)	4,400	SQYD	\$55	\$242,000	
Water Pollution Control	1	LS	\$22,000	\$22,000	
Lead Compliance Plan	1	LS	\$2,000	\$2,000	
Time Related Overhead (W/day)	535	Wdays	\$1,800	\$963,000	
Cozsep Contract	130	Wdays	\$1,000	\$130,000	
Resident Engineer Office Space	1	LS	\$144,000	\$144,000	
Adjust Pull Box	11	Ea	\$500	\$5,500	
				Subtotal Specialty Items:	\$3,033,750

<u>Section 5 - Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Lighting		LS	\$0	\$0	
Traffic Delineation Items	1	LS	\$20,000	\$20,000	
Pavement Marker (Non-Reflective)	4,800	EA	\$1.5	\$7,200	
Pavement Marker (Reflective)	4,700	EA	\$3.0	\$14,100	
Roadside Signs	10	EA	\$500	\$5,000	
Traffic Control Systems	1	LS	\$185,000	\$185,000	
Transportation Management Plan	1	LS	\$30,000	\$30,000	
Portable Changeable Message Sign	1	LS	\$70,000	\$70,000	
Maintain Traffic	1	LS	\$92,500	\$92,500	
Staging		LS	\$15,000	\$0	
Pavement Markings	3,240	SQFT	\$5.00	\$16,200	
Pavement Striping	222,700	LF	\$0.25	\$55,675	
				Subtotal Traffic Items:	\$495,675

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Mon-101
 PM: PM R36.9/43.2
 EA: 05-1F750K
 Program Code: 20.xx.201.122

II. ROADSIDE ITEMS

<u>Section 6 Planting and Irrigation</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Highway Planting	1	LS	\$75,000	\$75,000	
Replacement Planting	0	LS	\$0	\$0	
Irrigation Modification	0	LS	\$0	\$0	
Relocate Existing Irrigation	0	LS	\$0	\$0	
Facilities	0	LS	\$0	\$0	
Irrigation Crossovers	0	LS	\$0	\$0	
				\$0	
			Subtotal Planting and Irrigation Section:		\$75,000

<u>Section 7: Roadside Management and Safety Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Vegetation Control Treatments	0	LS	\$0	\$0	
Gore Area Pavement	0	LS	\$0	\$0	
Pavement beyond the gore area	0	LS	\$0	\$0	
Miscellaneous Paving/Roadway Repair	0	LS	\$0	\$0	
Erosion Control	20	Acre	\$5,000	\$100,000	
Storm Water	1	LS	\$152,000	\$152,000	
Side Slopes/Embankment Slopes	0	LS	\$0	\$0	
Maintenance Vehicle Pull outs					
Off-freeway Access (gates, stairways, etc.)					
Roadside Facilities (Vista Points, Transit, Park & Ride, etc)		LS	\$0	\$0	
Relocating roadside facilities/features		LS	\$0	\$0	
				\$0	
			Subtotal Roadside Management and Safety Section:		\$252,000

TOTAL SECTIONS 1 thru 7 \$36,285,825

NOTE: Extra lines are provided for items not listed; use additional lines as appropriate.

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Man-101
 PM: PM R36.9/43.2
 EA: 05-1F750K
 Program Code: 20.xx.201.122

III. ROADWAY ADDITIONS

Section 8 - Minor Items

				<u>Item Cost</u>	<u>Section Cost</u>
(Subtotal Sections 1 thru 7)	<u>\$36,265,825</u>	x	<u>0.05</u> (5 to 10%)	=	<u>\$1,814,291</u>

TOTAL Minor Items: \$1,814,291

Section 9 - Roadway Mobilization

(Subtotal Sections 1 thru 8)	<u>\$38,100,116</u>	x	<u>0.10</u> (10%)	=	<u>\$3,810,012</u>
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TOTAL Roadway Mobilization: \$3,810,012

Section 10 - Supplemental Work & Contingencies

Supplemental Work

(Subtotal Sections 1 thru 8)	<u>\$38,100,116</u>	x	<u>0.05</u> (5 to 10%)	=	<u>\$1,905,006</u>
------------------------------	---------------------	---	---------------------------	---	--------------------

Contingencies

(Subtotal Sections 1 thru 8)	<u>\$38,100,116</u>	x	<u>0.10</u> (10%)	=	<u>\$3,810,012</u>
------------------------------	---------------------	---	----------------------	---	--------------------

Supplemental Work & Contingencies: \$5,715,018

TOTAL ROADWAY ADDITIONS Sections 8 thru 10: \$11,339,321

TOTAL ROADWAY ITEMS: \$47,625,146

(Subtotal Sections 1 thru 10)

Estimate Prepared by:	<u>Chris Baab</u>	Phone: <u>(805) 549-3665</u>	<u>06/11/14</u>
	(Print or Type Name)		(Date)

Estimate Checked by:	<u>Aaron Henkel</u>	Phone: <u>(805) 549-3085</u>	<u>06/11/14</u>
	(Print or Type Name)		(Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.
<http://www.dot.ca.gov/hq/oppd/pdpm/pdpmn.htm> - pdpm

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Mon-101
 PM: PM R36.9/43.2
 EA: 06-1F750K
 Program Code: 20.xx.201.122

II. STRUCTURE ITEMS

	STRUCTURE			
Bridge Name	Wild Horse	Canal St, Jolon Rd	Broadway St	San Lorenzo, Salinas
Structure Type				
Width (out to out) - (ft)	<u>37</u>	<u>37, 37</u>	<u>37</u>	<u>37, 37</u>
Span Length - (ft)	<u>96</u>	<u>119, 121</u>	<u>108</u>	<u>262, 1907</u>
Total Area - ft ²	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Approach Slab - EA	<u>4</u>	<u>4, 4</u>	<u>4</u>	<u>4, 4</u>
Cost per ft ²	<u>90,000</u>	<u>90,000</u>	<u>90,000</u>	<u>90,000</u>
(Incl. 10 % mobilization and 20 % contingency)				
Total Cost for Structure	<u>\$360,000</u>	<u>\$720,000</u>	<u>\$360,000</u>	<u>\$720,000</u>
				<u>SUBTOTAL STRUCTURES ITEMS</u> <u>\$2,160,000</u>
				(Sum of Total Cost for Structures)
Railroad Related Costs (Not incl. in R/W Est)				<u>\$0</u>
				<u>\$0</u>
				<u>SUBTOTAL RAILROAD ITEMS</u> <u>\$0</u>
				<u>TOTAL STRUCTURES ITEMS</u> <u>\$2,160,000</u>
				(Sum of Structures Items plus Railroad Items)

COMMENTS:

Structure cost was given by Michael Downs on 4/8/2014

Estimate Prepared by: Chris Baab Phone: (805) 549-8865 06/11/14
 (Print or Type Name) (Date)

(If appropriate, attach additional pages as backup)

III. RIGHT OF WAY ITEMS

No. of years for Escalation =

3

Current Values **Rate** Escalation
 Page 6 of 7

Escalated

PLANNING COST ESTIMATE



Dist-Co-Rte: 05-Mon-101
 PM: PM R36.9/43.2
 EA: 05-1F750K
 Program Code: 20.xx.201.122

	(%)	Factor	Values	
A. Acquisition, Including excess lands, damages to remainder(s) and Goodwill	\$0	6.0	1.16	\$0
B. Utility Relocation (State Share)	\$15,000	6.0	1.16	\$17,364
C. Relocation Assistance	\$0	6.0	1.16	\$0
D. Clearance/Demolition	\$0	7.0	1.23	\$0
E. Title and Escrow Fees	\$0	4.0	1.12	\$0
TOTAL RIGHT OF WAY** ITEMS=	\$15,000			\$17,364 (Escalated Value)

Anticipated Date of Right of Way Certification: 0/0/00
 (Date to which Values are Escalated)

F. Construction Contract Work

Brief Description of Work

Right of Way Branch Cost Estimate for Work* \$0

* This dollar amount is to be included in the Roadway and/or Structures Items of Work, as appropriate. Do not include in Right of Way Items

COMMENTS:

Estimate Prepared by: Chris Baab Phone: (805) 549-3665 06/11/14
 (Print or Type Name) (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

Caltrans Maintenance Program 2011 Pavement Condition Survey Inventory Caltrans Drive Order

District 5, MON, Rte 101, PM 37.1 - 42.0

District 5 County MON Route 101

Begin PM - End PM	Length	Lane	Surface Type	Alligator Cracking A % B % C (Y/N)?	Routing Bleeding	LaneMi. (Est.)	Type	Slab Cracking		Faulting	Patching Area % Poor Cond.?	Ride, IRI	Priority	Skid	Defect
								AADT (,000)	MSL						
R 37.000	- R 37.309	0.309				1.236	MLD	16	1			5	102	98	GOOD CONDITION
	L1 R														
	L2 R						18	7	5			5	117	7	THIRD ST.CRKNG
	R1 R						14	7	1			5	80	98	GOOD CONDITION
	R2 R											7	126	7	THIRD ST.CRKNG
R 37.309	- R 37.328	0.019				0.076	MLD	15	1			N/A	N/A	0	N/A - Bridge
	L2 B														
	R2 B														N/A - Bridge
R 37.328	- R 38.000	0.672				2.688	MLD	15	1			5	71	98	GOOD CONDITION
	L1 R														
	L2 R						18	7	5			5	110	7	THIRD ST.CRKNG
	R1 R						14	7	1			5	81	98	GOOD CONDITION
	R2 R											5	90	7	THIRD ST.CRKNG
R 38.000	- R 39.000	1.000				4.000	MLD	15	1			5	74	98	GOOD CONDITION
	L1 R														
	L2 R						17	2	4			5	106	31	SLAB CRACKING
	R1 R						4	1	1			5	76	98	GOOD CONDITION
	R2 R											5	72	31	SLAB CRACKING
R 39.000	- R 39.785	0.785				3.140	MLD	15	1			5	80	98	GOOD CONDITION
	L1 R														
	L2 R						33	31	4			13	143	7	THIRD ST.CRKNG
	R1 R						18	43	5	Faulting		5	93	98	GOOD CONDITION
	R2 R											13	144	7	THIRD ST.CRKNG
R 39.785	- R 39.789	0.004				0.016	MLD	15	1			N/A	N/A	33	MISC. UNSEALED CRACKS
	L1 F-DG	0													
	L2 F-DG	20					18	43	5			N/A	N/A	32	ALL. A, NO B, OPEN CRKS
	R2 R											N/A	N/A	7	THIRD ST.CRKNG

Collection Date: 03/22/2013
 Printed: 02/03/2014

Caltrans Maintenance Program 2011 Pavement Condition Survey Inventory Caltrans Drive Order

District 5
 County MON
 Route 101
 Begin PM R 39.789

District 5, MON, Rte 101, PM 37.1 - 42.0

District 5 County MON Route 101

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL	Alligator Cracking		Rutting, Bleeding	Fauling		Patching Area %	Ride, IRI	Priority	Skid	Defect
						A %	B %		C (Y/N)?	1st %					
R 39.789	0.584	2.336	MLD	15	1							5	71	33	MISC. UNSEALED CRACKS
L1	F-DG	0										12	116	32	ALL. A, NO B, OPEN CRKS
L2	F-DG	20										5	77	98	GOOD CONDITION
R1	F-DG	0										12	115	32	ALL. A, NO B, OPEN CRKS
R2	F-DG	3													
R 40.373	0.003	0.012	MLD	15	1										
L1	B														N/A - Bridge
L2	B														N/A - Bridge
R1	F-DG	0												98	GOOD CONDITION
R2	F-DG	3												32	ALL. A, NO B, OPEN CRKS
R 40.376	0.047	0.188	MLD	15	1										
L1	B														N/A - Bridge
L2	B														N/A - Bridge
R1	F-DG	0												0	N/A - Bridge
R2	F-DG	3												0	N/A - Bridge
R 40.423	0.003	0.012	MLD	15	1										
L1	F-DG	0													N/A - Bridge
L2	F-DG	20													N/A - Bridge
R1	B													33	MISC. UNSEALED CRACKS
R2	B													32	ALL. A, NO B, OPEN CRKS
R 40.426	0.284	1.136	MLD	15	1										
L1	F-DG	0													N/A - Bridge
L2	F-DG	20													N/A - Bridge
R1	F-DG	0												0	N/A - Bridge
R2	F-DG	3												0	N/A - Bridge
R 40.710	0.006	0.024	MLD	15	1										
L1	B														N/A - Bridge
L2	B														N/A - Bridge
R1	F-DG	0												98	GOOD CONDITION
R2	F-DG	3												32	ALL. A, NO B, OPEN CRKS

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program 2011 Pavement Condition Survey Inventory Caltrans Drive Order

District 5
 County MON
 Route 101
 Begin PM R 40.716

District 5, MON, Rte 101, PM 37.1 - 42.0

District 5 County MON Route 101

Begin PM - End PM	Length	Lane	Surface Type	Alligator Cracking		LaneMi. (Est.)	Type	AADT (,000)	MSL	Faulthing		Ride, IRI	Priority	Skid	Defect
				A %	B %					1st %	3rd %				
R 40.716	- R 40.733	0.017	0.068	MLD	15	1				N/A	0				N/A - Bridge
	L1 B									N/A	0				N/A - Bridge
	L2 B									N/A	0				N/A - Bridge
	R1 B									N/A	0				N/A - Bridge
	R2 B									N/A	0				N/A - Bridge
R 40.733	- R 40.739	0.006	0.024	MLD	16	1				N/A	33				MISC. UNSEALED CRACKS
	L1 F-DG	0								N/A	32				ALL. A, NO B, OPEN CRKS
	L2 F-DG	20								N/A	0				N/A - Bridge
	R1 B									N/A	0				N/A - Bridge
	R2 B									N/A	0				N/A - Bridge
R 40.739	- R 41.048	0.309	1.854	MLD	19	1				5	67	33			MISC. UNSEALED CRACKS
	L1 F-DG	0								14	122	32			ALL. A, NO B, OPEN CRKS
	L2 F-DG	20								5	66	98			GOOD CONDITION
	R1 F-DG	0								6	91	32			ALL. A, NO B, OPEN CRKS
	R2 F-DG	3													
R 41.048 R	- R 41.074 R	0.026	0.078	MLD	10	1				5	73	98			GOOD CONDITION
	R1 F-DG	0								7	94	32			ALL. A, NO B, OPEN CRKS
	R2 F-DG	3													
R 41.074 R	- R 41.178 R	0.104	0.208	MLD	10	1				16	130	33			MISC. UNSEALED CRACKS
	R1 F-DG	0								22	154	32			ALL. A, NO ALL. B
	R2 F-DG	3													
R 41.178 R	- R 41.200 R	0.022	0.044	MLD	12	1				N/A	0				N/A - Bridge
	R1 B									N/A	0				N/A - Bridge
	R2 B														
R 41.200 R	- R 41.364 R	0.164	0.328	MLD	12	1				5	80	33			MISC. UNSEALED CRACKS
	R1 F-DG	0								11	111	32			ALL. A, NO ALL. B
	R2 F-DG	3													

*Surface type of 'EB' is Enhanced Binder.
 California Department of Transportation, Maintenance Program, Pavement Management Information Branch, Phone (916) 595-4586

Caltrans Maintenance Program 2011 Pavement Condition Survey Inventory Caltrans Drive Order

District 5, MON, Rte 101, PM 37.1 - 42.0

District 5 County MON Route 101

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL	Alligator Cracking		Rutting	Bleeding	Slab Cracking		Faulting	Patching Area %	Poor Cond.?	Ride, IRI	Priority	Skid	Defect
						A %	B %			C (Y/N)?	1st %							
R 41.364 R - R 41.708 R	0.344	0.688	MLD	12	1										20	161	0	N/A - Bridge
R1 B																		N/A - Bridge
R2 B															43	222	0	N/A - Bridge
R 41.708 R - R 41.954 R	0.246	0.492	MLD	12	1										15	127	33	MISC. UNSEALED CRACKS
R1 F-DG 0 0															14	121	32	ALL. A, NO ALL. B
R2 F-DG 3 0																		
R 41.954 R - R 41.976 R	0.022	0.044	MLD	12	1										5	113	0	N/A - Bridge
R1 B															13	143	0	N/A - Bridge
R2 B																		
R 41.976 R - R 42.102 R	0.126	0.252	MLD	12	1										5	59	33	MISC. UNSEALED CRACKS
R1 F-DG 0 0															8	98	32	ALL. A, NO ALL. B
R2 F-DG 3 0																		
R 42.102 R - R 42.394 R	0.292	0.584	MLD	12	1										5	67	99	NO DISTRESS OBSERVED
R1 F-DG 0 0															5	82	99	NO DISTRESS OBSERVED
R2 F-DG 0 0																		
R 41.048 L - R 41.166 L	0.118	0.236	MLD	12	1										N/A	N/A	33	MISC. UNSEALED CRACKS
L1 F-DG 0 0															N/A	N/A	32	ALL. A, NO B, OPEN CRKS
L2 F-DG 2 0																		
R 41.166 L - R 41.187 L	0.021	0.042	MLD	12	1										N/A	N/A	0	N/A - Bridge
L1 B																		N/A - Bridge
L2 B																		
R 41.187 L - R 41.271 L	0.084	0.168	MLD	12	1										23	159	33	MISC. UNSEALED CRACKS
L1 F-DG 0 0															19	141	32	ALL. A, NO B, OPEN CRKS
L2 F-DG 2 0																		
R 41.271 L - R 41.645 L	0.374	0.748	MLD	12	1										36	204	0	N/A - Bridge
L1 B															29	186	0	N/A - Bridge
L2 B																		

*Surface type of 'EB' is Enhanced Binder.
 California Department of Transportation, Maintenance Program, Pavement Management Information Branch, Phone (916) 595-4586

Caltrans Maintenance Program 2011 Pavement Condition Survey Inventory Caltrans Drive Order

District 5, MON, Rte 101, PM 37.1 - 42.0

District 5 County MON Route 101

Lane	Surface Type	Begin PM - End PM	Length	LaneMi. (Est.)	Rutting, Bleeding	Alligator Cracking A % B % C (Y/N)?	Type	AADT (,000)	MSL	Faulting	Patching		Ride, IRI	Priority	Skid	Defect
											1st %	3rd %				
R 41.645 L	- R	41.921 L	0.276	0.552			MLD	12	1				5 102	98		GOOD CONDITION
L1 R													13 142	7		THIRD ST.CRKNG
L2 R													N/A	0		N/A - Bridge
R 41.921 L	- R	41.943 L	0.022	0.044			MLD	12	1				N/A	7		THIRD ST.CRKNG
L2 B																
R 41.943 L	- R	42.000 L	0.057	0.114			MLD	12	1							
L2 R								37 22 13								
R 42.000 L	- R	42.401 L	0.401	0.802			MLD	12	1				5 92	98		GOOD CONDITION
L1 R													19 159	7		THIRD ST.CRKNG
L2 R								45 45 5								

M e m o r a n d u m

To: AARON HENKEL
Project Engineer
Design II

Date: February 6, 2014

File: MON-101-R37.1/42.0
EA 05-1F750K
King City Rehab

From: Materials Engineering Branch, District 5

Subject: Preliminary Materials Report - Pavement Structure Recommendations

This is in response to your request for preliminary pavement structure recommendations for the above project. The proposed project would rehabilitate mainline and ramps. Mainline 40 and 20 year traffic indices of 14.0 and 13.0 were used for the analysis.

40 year design life

Mainline overlay alternatives-

0.10' HMA or RHMA-O	0.10' RHMA-O	0.90' JPCP	0.85' CRCP
0.20' HMA (PM)	0.20' RHMA-G	0.10' HMA (LC)	0.10' HMA (LC)
0.50' HMA	0.50' HMA		
Fabric Interlayer	Fabric Interlayer		
0.10' HMA (LC)	0.10' HMA (LC)		

New mainline traveled way pavement structure alternatives-

0.10' HMA or RHMA-O	0.90' JPCP	0.85' CRCP
0.20' HMA (PM)	0.25' HMA	0.25' HMA
0.40' HMA	1.35' ASB	1.35' ASB
0.55' LCB		
1.80' CL1 ASB		

Widened slab configuration is assumed for rigid alternatives. The shoulder pavement structure may be the same as the traveled way or JPCP. Also, the PCC shoulder thickness' may be reduced by 0.20' and the HMA increased by 0.20'.

New flexible mainline shoulder - 0.45' HMA, 0.45' AB, 1.10' ASB

Widened mainline shoulders - overlay thickness plus 1.00' AB

Reconstructed ramps serving Wild Horse Rd., First St., and Jolon Rd.-

0.10' HMA or RHMA-G
0.20' HMA (PM)
0.40' HMA
0.55' LCB
1.80' CL1 ASB

It is recommended that ramp shoulders for these ramps also use the above structure due to off tracking truck traffic.

Reconstructed ramps elsewhere within the project limits -

Traveled Way	Shoulder
0.10' HMA or RHMA-G	0.35' HMA
0.20' HMA (PM)	0.90' AB
0.25' HMA	0.60' CL1 ASB
0.50' LCB	
1.25' CL1 ASB	

20 year design life

Mainline overlay alternatives-

0.40' HMA	0.20' RHMA-G	0.85' JPCP	0.80' CRCP
Fabric Interlayer	SAMI-R	0.10' HMA (LC)	0.10' HMA (LC)
0.15' HMA (LC)	0.15' HMA (LC)		

New mainline traveled way pavement structure alternatives-

0.55' HMA	0.80' JPCP	0.75' CRCP
0.50' LCB	0.25' HMA	0.25' HMA
1.70' CL1 ASB	1.35' ASB	1.35' ASB

Widened slab configuration is assumed for rigid alternatives. The shoulder pavement structure may be the same as the traveled way or JPCP. Also, the PCC shoulder thickness' may be reduced by 0.20' and the HMA increased by 0.20'.

New flexible mainline shoulder - 0.40' HMA, 0.40' AB, 0.95' ASB

Widened mainline shoulders - overlay thickness plus 1.00' AB

Reconstructed ramps serving Wild Horse Rd., First St., and Jolon Rd.-

Traveled Way - 0.50' HMA, 0.50' LCB, 1.50' ASB

It is recommended that ramp shoulders for these ramps also use the above structure due to off tracking truck traffic.

Reconstructed ramps elsewhere within the project limits -

Traveled Way - 0.40' HMA, 0.50' LCB, 1.05' ASB
 Shoulder - 0.30' HMA, 0.35' AB, 0.70' ASB

For the above new and reconstructed structures, RHMA-G, up to 0.20 feet, may be substituted in the HMA surfacing thickness above when conditions are acceptable.

Aaron Henkel
EA 05-1F750K
February 6, 2014
Page 3

Notes:

- New mainline alternatives are provided for use in reconstructing the mainline pavement including that at structures where the existing profile must be maintained.
- See the attached pavement considerations for further discussion on RHMA and pavement edge treatments.

The recommendations in this report are preliminary and suitable for estimation purposes only. They ARE NOT suitable for design. The final design will be based on thorough investigations supported by field exploration and laboratory testing. This office should be contacted at the beginning of the PS&E phase so that the investigations can be performed and design recommendations provided.

If you have any questions, please contact me at (805) 549-3158.



Glenn Johnson
Materials Engineer

Legend:

HMA-	Hot Mix Asphalt Type A	AB-	Aggregate Base Class 2
RHMA-	Rubberized Hot Mix Asphalt	LCB-	Lean Concrete Base
JPCP--	Jointed Plain Concrete Pavement	AS-	Aggregate Subbase Class 1
CRCP-	Continuously Reinforced Concrete Pavement	LC-	Leveling Course
PM-	Polymer Modified	AC-	Asphalt Concrete
SAMI-R	Stress Absorbing Membrane Interlayer - Rubberized		

Attachment

Pavement Considerations

RUBBERIZED PAVEMENT

In order to comply with CA Public Resources Code 42703 that mandates 35% of the total weight of asphalt paving materials be rubberized, the Department has been directed to consider rubberized pavement alternatives. At the discretion of the Project Development Team (PDT), 0.20 foot of RHMA-G may be substituted for 0.20 foot of HMA, and PG 64-16 binder shall be used instead of PG 64-10. Some conditions and criteria to be considered when selecting the use of rubberized materials are:

- Damp, windy, and ambient temperatures below 65 degrees Fahrenheit are not recommended for placement of rubberized pavements.
- Higher cost and lower availability - tonnages less than 3000 tons are difficult to obtain.
- When constructing a single lane or shoulder adjacent to existing, there may be a drainage concern when using rubberized pavements. The slope of the pavement would need to direct runoff away from existing adjacent lanes or shoulders in order to minimize the water on the pavement.
- Rubberized pavements are not recommended in the method process of pavement placement for gore areas, maintenance pullouts, and medians.
- For new pavement structures, no additional pavement life would be gained by use and additional cost of RHMA.
- When hauling distance is a concern it is suggested to consider RWMA-G, which gives the contractor the option to use warm mix to address temperature losses over long hauls.
- When Local Agencies are involved on a project and rubberized pavement is being considered it is advised to get that Agency's concurrence and approval.

SAFETY EDGE

Safety edge can prevent oversteer for motorists reentering the paved road, but is not placed next to features such as curbs, dikes, guardrails, and others. Refer to the 2010 revised Standard Plans "Pavement Edge Treatments" for the appropriate use of Safety Edge and adjoining embankment or shoulder backing. For more information about Safety Edge, please refer to the FHWA Safety Edge website at <http://www.fhwa.dot.gov/everydaycounts/technology/safetyedge/intro.cfm>.

Memorandum

To: John Luchetta

Date: 3/14/2014

Attn: Aaron Henkel

File: CD 05 EA 1F7501 Alt NA

John Fouche

Co MON RTE 101

DESCRIPTION:

King City Rehab-Reconstruct travel lanes, shoulders, and ramps. Install new guardrail, adjust DI to grade, and place new dike.

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

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 2/27/2014

The following assumptions and limiting conditions were identified:

Appraisal

Utility

On the datasheet request the PE indicates that potholing and utility involvement/relocation is not anticipated; a permit search was not conducted. A safety analysis with recommendations and considerations has been submitted. According to discussion at the kick-off PDT it is assumed that project excavation will be 18"-24" maximum. Ramps at all 5 interchanges are included as well as selected ADA curb ramp upgrades. There are 4 or 5 UG transverse crossings (US 101) of communications and one 8" HP gas line. The gas line is at the Jolon Rd I/C in the vicinity of where 1500' of MGS installation and SB on-ramp MGS are anticipated. The permit record indicates there are UG utilities within the local roads adjacent to the ramp termini. MGS depth is typical at 43". An aerial cable is transverse at the NB Canal St off-ramp. At the NB Wildhorse off-ramp there is a PGE pole with multi-guy - distance relative to CRZ is unknown (not referenced in safety analysis). It is assumed that the ADA ramp work will not include the Broadway SB hook ramp intersection - otherwise there may be city utilities that are unknown at this time. Where the median MGBR replacement is proposed at First St I/C there are UG communication lines. It is assumed that the utility pole adjacent to the First Street NB off-ramp is a Caltrans service pole. Assumptions include 1. Guy at NB off-ramp Wildhorse will not require relocation; 2. aerial cable at NB off-ramp Canal will not require elevating; 3. all UG utilities will be protected in place or avoided. If these assumptions change project cost may increase and project schedule may be at-risk. Comply with USA alert requirements, including at construction sign locations. Avoid and protect in place all existing buried and aerial facilities not subject to relocation.

Right of Way Lead Time will require a minimum of 12 months after we receive Certified Appraisal Maps and/or Utility Conflict Plans, obtained necessary environmental clearance and applicable freeway agreements have been approved.



JOHN T. MAGORIAN, Sr. Right of Way Agent
San Luis Obispo Field Office
(805) 549-3002

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:	\$15,000	25%	5%	\$17,364
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
Total Current Value:	\$15,000			\$17,364

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

Estimated Construction Contract Work (CCW):

R/W LEAD TIME/Mo. 12

Cost Break Down	
Pot Hole	12,000
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:	yes
Estimated Lead-time	3 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:
Totals:	0 Totals: 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	0
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	0
U5-7: Utility verification, no relocation/potholing	5
U5-8: Utility verification, w/ some relocation/potholing	
U5-9: Utility verifications, relocation/potholing required	

EA: 05-1F7501 ALT: NA

Parcel Area

Total RW 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 as freeway through the project limits. The project proposes to reconstruct travel lanes, shoulders and ramps; install new guardrail, adjust drain inlets to grade and place new dike. Landscape Architecture has received extensive utility information for EA 1C090. Recommend this information be obtained for review. Encroachment Permit 780784 indicates a 12kv UG electric in 3" steel casing is UG transverse approx. 375 north of San Lorenzo bridge. It is not known if this facility still exists. Pothole estimate includes both hi and lo risk facilities.

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 multi-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: sah 2/28/2014

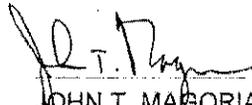
Utility Relocation Coordinator: Chris Shaeffer 3/14/2014

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 3/14/2014

BY: Patrick Mason


 JOHN T. MAGORIAN
 Sr. Right of Way Agent, Right of Way

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM

05-MON-101	R36.9/43.2	05-1F750	N/A
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.)

The roadway structural section has exceeded its original useful life due to increased traffic loading and volumes. By replacing the structural section, the quality of ride would be greatly improved, further deterioration would be eliminated, and the cost of future maintenance would be significantly reduced. All work will be within the existing R/W. Total disturbed area to be within 5 feet of edge of pavement except for areas as shown in the mapping. Work will be a combination of replacement of the existing structural section and overlay the existing lanes with the shoulders and ramps requiring reconstruction. See attached continuation sheets pages 2-4 for a detailed description of the proposed work.

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.):

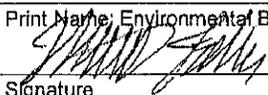
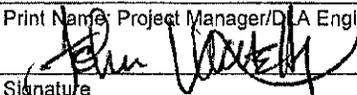
- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects 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	John Luchetta
Print Name: Environmental Branch Chief	Print Name: Project Manager/DLA Engineer
	
Signature	Signature
04/02/14	4/2/14
Date	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)()
 - 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.

Print Name: Environmental Branch Chief	Print Name: Project Manager/DLA Engineer
	
Signature	Signature
Date	Date

Date of Categorical Exclusion Checklist completion: _____ Date of ECR or equivalent: _____

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

05-MON-101	R36.9/43.2	05-1F750	N/A
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:

Safety enhancements:

- 1) ADA ramps at Broadway on and off-ramps.
- 2) Remove curb and dike throughout project limits that do not have a drainage function as well as replace all curb and dike that are not standard height. Some regrading will be necessary at locations with existing 8 to 12 inch dike.
- 3) Remove curb at on and off-ramp gores.
- 4) Refresh all pavement delineation including aircraft markings within Caltrans R/W.
- 5) Widen and repair inside shoulders on Route 101 to 5 feet. Install rumble strip and safety edge where dike or curb is not present. Place shoulder backing as required.
- 6) Repair and/ or overlay outside shoulders and install rumble strip and safety edge where dike or curb is not present. Place shoulder backing as required.
- 7) Install Safety Edge where dike or curb is not installed.
- 8) Retain vertical clearance at First Street overcrossing structure.
- 9) Raise existing MBGR to 29 inches, or replace with MGS railing throughout project limits.
- 10) Install anchor blocks with WB connections at all approach bridge rails and concrete barriers.
- 11) Install STB connections at all bridge departures where railing connects to structure, and concrete barrier locations.
- 12) Install "Curve Sharpens" sign in head on position (facing south) from Route 101 at merge section of NB Broadway on-ramp, and north of existing Chevron signs, PM 41.3.
- 13) Replace median MBGR with Thrie beam barrier at First Street overcrossing with end treatments.
- 14) Install STB connection, approximately 1500 feet of MGS railing, and anchor block with WB connections on inside and outside shoulders, NB between Salinas River Bridge and Jolon Road U.C.

Safety enhancements for ramps:

- 1) First Street NB off-ramp and First Street: Install anchor block and WB connection with terminal end treatment for southwest corner of First Street O.C.
- 2) Remove concrete gutter adjacent right of edge of traveled way and adjust shoulder cross slope to drain away from traveled way when feasible.
- 3) First Street NB off-ramp: Reset two utility boxes, right shoulder.
- 4) First Street NB on-ramp, NE corner and on First Street: Replace MBGR with MGS and extend approximately 1000 feet to 120 feet north of over side drain, right shoulder, near ramp inlet.
- 5) Canal Street NB on-ramp: Remove approximately 500 feet of 8 to 12 inch dike and re-grade slope.
- 6) Canal Street NB on-ramp: Reset utility box right shoulder.
- 7) Broadway NB off-ramp: Reset utility box right shoulder.
- 8) Broadway NB off-ramp: Replace 2 posts (sign) and make breakaway, at ramp terminus, right shoulder.
- 9) Broadway NB off-ramp: Check stop sign (R1-1) for proper height of 7 feet. Replace if necessary.
- 10) Broadway NB on-ramp: Extend MBGR, or MGS if new rail to shield utility pole near ramp inlet, right shoulder.
- 11) Jolon Road SB on-ramp to Salinas River Bridge: Replace MBGR with MGS railing and extend up to 200 feet north, right shoulder. Connect to Salinas River Bridge with Anchor block and WB connections, right and left shoulders.
- 12) Canal Street SB off-ramp: Reset utility box, right shoulder near gore.
- 13) First Street NB off-ramp: Reset utility box, right shoulder near illuminare.

February 12, 2014

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM
Continuation Sheet

Noise:

- Implement a construction noise and/or vibration monitoring program to limit impacts.
- Limit construction activities to daytime hours, if possible.
- Keep noise levels relatively uniform and avoid impulsive noises.
- Maintain good public relations with the community to minimize objections to the unavoidable construction impacts. Provide frequent activity updates of all construction activities.
- Per Caltrans Standard Specifications 14-8.02 Noise Control: Do not exceed 86 dBA LMax at 50 feet from the job site activities from 9 pm to 6 am. Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job without the appropriate muffler.

Cultural:

Ground disturbing activities will be limited to the area depicted on project details (February 3, 2014). Please contact Archaeologist Terry Joslin at 805.549.3778 or Terry_Joslin@dot.ca.gov.

Biology:

1. Avoidance and minimization of ground disturbance due to project related actions will be achieved with the establishment of an Environmentally Sensitive Area (ESA). The ESA will ensure that unnecessary disturbance does not occur outside of the project limits. ESA fencing will be used only if sensitive species are found.
2. 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.
3. 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 a tree 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.
4. A Caltrans Biologist will conduct botanical surveys in the appropriate time of year (spring 2014) to confirm that the marginal habitat that exists on the project does not support sensitive plant species. If plants are located, temporary ESA fencing will be used to completely avoid these areas. If avoidance is not feasible, additional consultation will be required.

Caltrans proposes to implement the following avoidance and minimization measure for San Joaquin whipsnake:

5. 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.

Caltrans proposes to implement avoidance and minimization measures for San Joaquin kit fox and American badger, as adapted from the USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011):

6. No less than 14 days and no more than 30 days prior to any construction activities or any project activity likely to impact the San Joaquin kit fox and American badger, a preconstruction survey shall be conducted for San Joaquin kit fox and American badger. The survey shall identify San Joaquin kit fox and/or American badger habitat features on the project site, evaluate use by San Joaquin kit fox and/or American badger and, if possible, assess the potential impacts to the San Joaquin kit fox and/or American badger by the proposed activity. The status of all dens should be determined and mapped. Known dens, if found occurring within the footprint of the activity, shall be monitored for three days with tracking medium to determine the current use. If no San

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM
Continuation Sheet

Joaquin kit fox and/or American badger activity is observed during this period, the den shall be destroyed immediately to preclude subsequent use. If San Joaquin kit fox and/or American badger activity is observed at the den during this period, the den shall be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den is determined to be unoccupied shall the den be excavated under the direction of the biologist. A biological opinion will not be required since these are recommendations, due to likelihood of species on project.

7. Written results of the preconstruction/preactivity survey will be submitted to CDFW within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If the preconstruction/preactivity survey reveals an active den or new information regarding San Joaquin kit fox or American badger presence within 200 feet of the project boundary, CDFW and USFWS shall be immediately notified.
8. Prior to ground breaking, a qualified biologist shall conduct an environmental education and training session for all construction personnel.
9. Project employees shall be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards. Construction activity shall be confined within the project site, which may include temporary access roads and staging areas specifically designated and marked for these purposes.
10. A litter control program shall be instituted within the BSA. No canine or feline pets or firearms (except for law enforcement officers and security personnel) shall be permitted on construction sites in order to avoid harassment, killing, or injuring of San Joaquin kit fox and/or American badger.
11. Maintenance and construction excavations greater than 2-feet deep shall be covered (e.g., with plywood, sturdy plastic, steel plates, or equivalent), filled in at the end of each working day, or have earthen escape ramps no greater than 200 feet apart to prevent trapping San Joaquin kit fox and/or American badger.
12. The resident engineer or their designee shall be responsible for implementing these conservation measures and shall be the point of contact.
13. 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.
14. Any restoration and revegetation work associated with temporary impacts should be done using California endemic plants appropriate for the location. To the maximum extent practicable, topsoil shall be removed, cached, and returned to the site according to successful restoration protocols. Loss of soil from run-off or erosion shall be prevented with straw bales, straw wattles, or similar means provided they do not entangle or block escape or dispersal routes of San Joaquin kit fox and/or American badger.

STRUCTURE REPLACEMENT AND IMPROVEMENT NEEDS REPORT

SMS15010
MAR, 2014

District : 05

Bridge Number : 44 0032L Total Length: 602.3 Permit Rating: PPPPP Suff Rating : 72.00
 Feat Intersected: SALINAS RIVER Total Width : 11.8 Rail Rating : 00N0 Approach Width: 11.2
 Structure Name : SALINAS RIVER Location : 05-MON-101-R41.36L

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	03/28/2007	70 - Seismic-Retrofit	2 Years	\$3,579,500	2-Programmed	0.40

Project Details :

1 Short seat hinges, possible liquefaction. Priority 4. Final Score 0.396.

Bridge Number : 44 0032R Total Length: 550.4 Permit Rating: PPPPP Suff Rating : 71.10
 Feat Intersected: SALINAS RIVER Total Width : 10.2 Rail Rating : 0011 Approach Width: 8.5
 Structure Name : SALINAS RIVER Location : 05-MON-101-R41.36R STRUCTURALLY DEFICIENT

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	02/10/1984	62 - Railing-Upgrade	2 Years	\$1,845,000	2-Programmed	4.96
2	03/28/2007	70 - Seismic-Retrofit	2 Years	\$3,137,500	2-Programmed	1.98

Project Details :

1 F1-03 / F2-0 / F3-0 / Rail Type-C.WIN
 2 Short seat hinges, possible liquefaction. Priority 4. Final Score 1.98.

Bridge Number : 44 0033L Total Length: 59.7 Permit Rating: PPPPP Suff Rating : 62.00
 Feat Intersected: UP RR & AMTRAK Total Width : 9.7 Rail Rating : 0010 Approach Width: 11.6
 Structure Name : CASTROVILLE OH Location : 05-MON-156-R1.59 FUNCTIONALLY OBSOLETE

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	02/10/1984	62 - Railing-Upgrade	2 Years	\$234,520	2-Programmed	14.65

Project Details :

1 F1-10 / F2-6 / F3-1 / Rail Type-WOOD

Bridge Number : 44 0035 Total Length: 72.8 Permit Rating: PGGGG Suff Rating : 53.50
 Feat Intersected: CASTRO CANYON Total Width : 9.3 Rail Rating : 00N0 Approach Width: 8.4
 Structure Name : CASTRO CANYON Location : 05-MON-001-43.12 FUNCTIONALLY OBSOLETE

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	02/10/1984	62 - Railing-Upgrade	2 Years	\$278,800	8-Ten Year Plan	16.28

Project Details :

1 F1-10 / F2-0 / F3-5 / Rail Type-WOOD

STRUCTURE REPLACEMENT AND IMPROVEMENT NEEDS REPORT

SMS15010
MAR, 2014

District : 05

Bridge Number : 44 0190R Total Length: 29.9 Permit Rating: P P P P P Suff Rating : 95.60
 Feat Intersected: WILD HORSE ROAD Total Width : 12.5 Rail Rating : 1111 Approach Width: 11.9
 Structure Name : WILD HORSE UC Location : 05-MON-101-R37.31

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	07/01/2012	62 - Railing-Upgrade	4 Years	\$137,760	0-Proposed	0.00

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Bridge Number : 44 0193L Total Length: 37.2 Permit Rating: P P P P P Suff Rating : 93.60
 Feat Intersected: PARIS VALLEY ROAD Total Width : 12.5 Rail Rating : 0000 Approach Width: 11.9
 Structure Name : SAN ARDO UC Location : 05-MON-101-R21.99

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	07/01/2012	62 - Railing-Upgrade	4 Years	\$160,720	0-Proposed	1.75

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Bridge Number : 44 0193R Total Length: 37.2 Permit Rating: P P P P P Suff Rating : 92.60
 Feat Intersected: PARIS VALLEY ROAD Total Width : 12.5 Rail Rating : 0000 Approach Width: 11.9
 Structure Name : SAN ARDO UC Location : 05-MON-101-R21.99

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	07/01/2012	62 - Railing-Upgrade	4 Years	\$160,720	0-Proposed	1.75

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Bridge Number : 44 0196 Total Length: 130.5 Permit Rating: Suff Rating :
 Feat Intersected: STATE ROUTE 156 Total Width : 3 Rail Rating : N N N N Approach Width:
 Structure Name : GEIL STREET POC Location : 05-MON-156-R1.35

Item	Recom. Date	Project Type	Urgency Factor	Cost	Status	Tech. rank
1	07/01/2000	AD - ADA Compliance Work	6 Years		5-Deferred	23.66

Project Details :

1 This structure has been identified as needing Americans with Disabilities Act (ADA) compliance work. Consult the District ADA coordinator for information on required modifications.

STRUCTURE REPLACEMENT AND IMPROVEMENT NEEDS REPORT

SMS15010
MAR, 2014

District : 05

Bridge Number : 44 0183R
 Total Length: 29.3
 Permit Rating: P P P P P
 Suff Rating : 91.70
 Feat Intersected: LOCKWOOD-SAN LUCAS ROAD
 Total Width : 12.5
 Rail Rating : 0111
 Approach Width: 11.9
 Structure Name : LOCKWOOD-SAN LUCAS ROAD UC
 Location : 05-MON-101-R29.90
 FUNCTIONALLY OBSOLETE
 Item Recom. Date Project Type Urgency Factor Cost Status Tech. rank
 1 07/01/2012 62 - Railing-Upgrade 4 Years \$136,120 0-Proposed 1.77

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Bridge Number : 44 0184L
 Total Length: 40.2
 Permit Rating: P P P P P
 Suff Rating : 97.70
 Feat Intersected: LOCKWOOD SAN LUCAS ROAD
 Total Width : 12.5
 Rail Rating : 0111
 Approach Width: 11.9
 Structure Name : RANCHO UNDERCROSSING
 Location : 05-MON-101-R30.65
 Item Recom. Date Project Type Urgency Factor Cost Status Tech. rank
 1 07/01/2012 62 - Railing-Upgrade 4 Years \$170,560 0-Proposed 1.72

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Bridge Number : 44 0184R
 Total Length: 40.2
 Permit Rating: P P P P P
 Suff Rating : 95.70
 Feat Intersected: LOCKWOOD SAN LUCAS ROAD
 Total Width : 12.5
 Rail Rating : 0100
 Approach Width: 11.9
 Structure Name : RANCHO UNDERCROSSING
 Location : 05-MON-101-R30.65
 Item Recom. Date Project Type Urgency Factor Cost Status Tech. rank
 1 07/01/2012 62 - Railing-Upgrade 4 Years \$170,560 0-Proposed 1.72

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Bridge Number : 44 0190L
 Total Length: 29.9
 Permit Rating: P P P P P
 Suff Rating : 95.60
 Feat Intersected: WILD HORSE ROAD
 Total Width : 12.5
 Rail Rating : 1111
 Approach Width: 11.9
 Structure Name : WILD HORSE UC
 Location : 05-MON-101-R37.31
 Item Recom. Date Project Type Urgency Factor Cost Status Tech. rank
 1 07/01/2012 62 - Railing-Upgrade 4 Years \$137,760 0-Proposed 0.00

Project Details :

1 Upgrade Type 9 rail to current standards. (SMS)

Memorandum

*Flex your power!
Be energy efficient!*

To: **JOHN FOCHE**
Senior Transportation Engineer
Project Development

From: **MARTIN NISHIKAWA**
Senior Transportation Engineer
Branch Manager - Office of Construction Estimate Review
Project Development

Date: April 1, 2014

File: EA 05-1F750k
05-MON-101-R36.9/43.2

Subject: Life Cycle Cost Analysis

The Life Cycle Cost Analysis (LCCA) has been completed.

The results of the LCCA have been determined for the ramps and mainline Route 101.

For the ramps in the project corridor, it has been determined that Alternative R20b would have the lowest LCCA when compared to Alternative R40d for final surfacing (see results below).

Total Cost				
Total Cost	Alternative R20b - HMA Reconstruction		Alternative R40d - HMA w/ RHMA Reconstruction	
	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)
Undiscounted Sum	\$2,748.30	\$25.93	\$4,745.57	\$20.13
Present Value	\$1,287.33	\$16.22	\$2,253.60	\$15.29
EUAC ¹	\$58.23	\$0.73	\$101.93	\$0.69
Lowest Present Value Agency Cost: Alternative R20b - HMA Reconstruction				
Lowest Present Value User Cost: Alternative R40d - HMA w/ RHMA Reconstruction				

¹ EUAC = Equivalent Uniform Annual Cost

For the mainline section on Route 101 between Wild Horse Road and the 1st Street OC (PM R36.9 to R39.77), it has been determined that Alternative M40c would have the lowest LCCA when compared to the other proposed alternatives for final surfacing (see results below).

Total Cost	Total Cost									
	Alternative M20a HMA Overlay		Alternative M40c JPCP Overlay		Alternative M40e HMA w/ RHMA Reconstruction		Alternative M40f JPCP Reconstruction		Alternative M40g CRCP Reconstruction	
	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)
Undiscounted Sum	\$49,191.11	\$389.32	\$9,855.34	\$346.76	\$18,284.66	\$838.01	\$9,870.34	\$638.15	\$9,178.97	\$519.69
Present Value	\$20,483.28	\$147.95	\$8,715.06	\$243.08	\$11,960.52	\$485.98	\$8,796.52	\$534.47	\$9,107.27	\$519.69
EUAC ¹	\$926.48	\$6.69	\$394.19	\$10.99	\$540.99	\$21.98	\$397.88	\$24.17	\$411.93	\$23.51
Lowest Present Value Agency Cost: Alternative M40c - JPCP Overlay										
Lowest Present Value User Cost: Alternative M20a - HMA Overlay										

¹ EUAC = Equivalent Uniform Annual Cost

April 1, 2014
Page 2

For the mainline section on Route 101 between the 1st Street OC and Jolon Road (PM R39.77 to 43.2), it has been determined that Alternative M40f would have the lowest LCCA when compared to the other proposed alternatives for final surfacing (see results below).

Total Cost								
Total Cost	Alternative M20e HMA Reconstruction		Alternative M40e HMA w/ RHMA Reconstruction		Alternative M40f JPCP Reconstruction		Alternative M40g CRCP Reconstruction	
	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)
Undiscounted Sum	\$26,585.50	\$1,234.12	\$14,687.96	\$1,355.46	\$8,445.16	\$690.01	\$7,879.03	\$400.90
Present Value	\$13,050.87	\$480.98	\$9,742.59	\$533.73	\$7,605.85	\$432.79	\$7,822.71	\$400.90
EUAC ¹	\$590.31	\$21.76	\$440.67	\$24.14	\$344.02	\$19.58	\$353.83	\$18.13
Lowest Present Value Agency Cost: Alternative M40f - JPCP Reconstruction								
Lowest Present Value User Cost: Alternative M40g - CRCP Reconstruction								

¹ EUAC = Equivalent Uniform Annual Cost

Agency Cost is the sum of initial construction costs, project support costs and future maintenance and rehabilitation costs. User Cost includes travel time costs, vehicle operating costs and crash costs incurred by the traveling public.

Attached is the RealCost_V2.5(2) output report used for the Life Cycle Cost Analysis. If you have any questions, please contact me at (559) 230-3122.

Attachments:
RealCost_V2.5(2) output report

DISTRICT 5 TRAFFIC MANAGEMENT PLAN CHECK LIST

District / EA: 05/1F750K
 Project Engineer: Aaron Henkel
 Date Prepared: 6/10/2014

Co.-Rte-PM: Mon-101 R37.0/42.0
 Description: King City rehab
 Working Days: 535 days

Check each box and reference your attachments to the item(s) number(s) shown on the list.

1.0 Public Information

- 1.1 Public Awareness Campaign
- 1.2 Other Strategies

Required	Not required	Not Applicable	COMMENTS
x			Include \$25,000 for public info
	x		

2.0 Motorist Information Strategies

- 2.1 Changeable Message Signs (Portable)
- 2.2 Construction Area Signs (SSP 12-003)
- 2.3 Highway Advisory Radio (fixed and mobile)
- 2.4 Planned Lane Closure Web Site
- 2.5 Caltrans Highway Information Network (CHIN)

x			Min. 1 CMS for lane closures, 1 for ramp closure
x			(CMS \$200/day)
	x		
	x		Construction to provide information to TMC
	x		Construction to provide information to TMC

3.0 Incident Management

- 3.1 COZEEP - as directed by Engineer
- 3.2 Freeway Service Patrol

x			Include \$100/hour days, \$200/hour nights
	x		(Maybe \$600K??)

4.0 Traffic Management Strategies

- 4.1 Lane/Ramp Closures Charts
- 4.2 Total Facility Closure
- 4.3 Coordination with adjacent construction
- 4.4 Contingency Plan
 - 4.4.1 Material/Equipment Standby
 - 4.4.2 Emergency Detour Plan
 - 4.4.3 Emergency Notification Plan
- 4.5 SSP 12-220 and Others
- 4.6 Other Strategies:

x			To be provided @ PS&E
	x		
	x		
x			Standard (SSP 12-220)
x			Construction/Contractor to provide - as needed
x			Construction/Contractor to provide - as needed
x			Construction/Contractor to provide - as needed
x			Standard
x			
x			Use amended table for 12-4.04

- Provide 5 working days advance notification for ramp closures using ground mounted signs.

Address wide load issues with lane width reduction

Special Days include Salinas Valley Fair

5.0 Anticipate Delays

- 5.1 Lane Closure Review Committee (for anticipated delays over 30 minutes)
- 5.2 Planned freeway closures

	x		
	x		

- 5.3 Minimal delay anticipated - no further action required if above strategies implemented.

yes no If no, explain additional measures on attached sheet.

Shayne Sandeman
 District TMP Coordinator

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
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: \$ _____

Project ID/District-EA: 0514000050/05-1F750

Project Description: Pavement Rehabilitation – King City Rehab

Project Manager (PM): JOHN LUCHETTA

Project Risk Manager: John Luchetta
 (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: _____ Date: _____

PA&ED (Required for Capital Projects Only)

FDR
 JOHN LUCHETTA
 Project Manager
 _____ Date: 6-3-14

for
 CHRISTINE COX-KOVACEVICH
 Chief, Central Region Environmental
 _____ Date: 6-25-14

BRIAN EVERSON
 Chief, Central Region Project Development
 _____ Date: 6/25/14

SARA VON SCHWIND
 Deputy District Director, Program/Project Management
 _____ Date: 6-30-14

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

JOHN LUCHETTA
 Project Manager
 _____ Date: _____

BRIAN EVERSON
 *Chief, Central Region Project Development
 _____ Date: _____

MARK DER MATOIAN
 Chief, Central Region Construction
 _____ Date: _____

SUZETTE SHELLOOE
 Chief, Central Region Right of Way
 _____ Date: _____

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

SARA VON SCHWIND
 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

Dist - E.A 05-1F750 Project Name King City 2R Rehab
 Co-Rte-PM 101R36.9/R43.2 MON-
 Date 6/25/2014
 Project Mngr John Luchetta Telephone Number 805-549-3175

PROJECT RISK REGISTER																	
Priority	Identification					Qualitative Analysis				OPTIONAL Quantitative Analysis			Risk Response Plan		Monitoring and Control		
	Status	ID #	Date Identified	Functional Assignment	Threat/Opportunity Event	Risk Trigger	Type	Probability	Impact	Risk Matrix	Probability (%)	Impact (\$ or days)	Effect or days (\$)	Strategy	Response Actions including advantages and disadvantages	Responsibility (Risk Manager)	Last date changes made to risk and Comments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)=(12)x(13)	(15)	(16)	(17)	(18)
3	Active	6	4/11/2014	Design	Delay in determination of who prepares Rapid Stream Stability Assessment (RSSA) and lack of approved guidelines.	Delay in PS&E Milestone	Schedule	Moderate	Low		30%			Acceptance	Focused PDT to discuss issue and seek guidance from Mgmt and HQ SWPPP liaison.	Design Manager John Fouche SWPPP Coord Pete Reigelhuth	
6	Active	3	4/3/2014	Project Mgr.	Reduced CTC meeting schedule may result in funds vote that doesn't occur promptly after RTL.	Potential delay in Advertising date.	Schedule	Low	Low		30%			Acceptance	Team to deliver RTL as scheduled, accept that CTC vote date out of team control.	Project Manager John Luchetta Design Manager John Fouche	
4	Active	2	4/1/2014	R/W Utilities	Unforeseen issue involving unidentified utility.	Potential ROW delay during construction, increased cost.	Cost	Low	Moderate		30%			Acceptance	Design to work closely with R/W utility agent by communicating project location and features and any changes that may occur during PS&E.	R/W Manager John Magorian Design Manager John Fouche	
8	Retired	1	4/3/2014	Project Mgr	The project will be delayed if it is not picked up in the 2014 SHOPP due to other projects being a higher priority.	Project not programmed in the 2014 SHOPP	Schedule	Low	High		50%			Acceptance	Team will deliver project as scheduled; if project is not programmed in 2014 will be shelved and readied for 2016 SHOPP cycle.	Project Manager John Luchetta	
7	Active	4	6/25/2014	Project Mgr	Delay to FTIP Approval	If the 2015 FTIP is not approved in a timely manner there is the potential for a schedule delay.	Schedule	Moderate	Moderate		50%			Mitigation	If FTIP approval delayed, PM to request a workaround (as granted in past years) to allow early start prior to FTIP approval.	Project Manager John Luchetta	
9	Active	5	4/2/2014	CON	Delay to Construction schedule	If sensitive species are discovered within the project limits during construction, consultation with resource agencies may be required.	Schedule	Low	Moderate		30%			Acceptance	Construction staff and project biologist to closely coordinate and monitor for sensitive species.	CON Manager Tim Campbell Biologist Paul Andreano	
5	Active	7	4/11/2014	DES	RSSA from StormWater identifies need for additional items of work	Potential Cost Increase.	Cost	Moderate	Low		30%			Mitigation	Design to carry additional funds in estimate to cover potential cost increase. Amount to be determined between SWPPP coordinator and Design.	Design Manager John Fouche	
1	Retired	8	4/17/2014	Project Mgr	Project is not amended into the 2014 SHOPP	Potential Schedule Delay.	Schedule	High	High		70%			Acceptance	Current schedule as shown in the PSSR assumes project will be amended into the 2014 SHOPP and that the phase 1 work can begin by Sept. 1, 2014.	Project Manager John Luchetta	
2	Retired	9	4/17/2014	Project Mgr	Project is not amended into the 2014 SHOPP	Potential Cost increase.	Cost	High	Low		50%			Acceptance	Schedule shown in the PSSR assumes project will be amended into the 2014 SHOPP and that phase 1 work can begin by Sept. 1, 2014. A delay in the schedule will require all capital costs to be updated.	Project Manager John Luchetta	
	Active	10	6/25/2014	Project Mgr	The project will be picked up in the 2016 SHOPP	Programming will be delayed	Schedule	Moderate	Low		50%			Acceptance	Team will deliver project as scheduled; if project is not programmed in 2016 will be shelved and readied for 2018 SHOPP cycle. Schedule shown in the PSSR assumes project will be amended in the 2016 SHOPP and that phase 1 work can begin by Sept. 1, 2016. A delay in the schedule will require all capital costs to be updated.	Project Manager John Luchetta	



Dist-County-Route: 05-MON-101
 Post Mile Limits: -36.9/43.2
 Project Type: PAVEMENT REHABILITATION (2R)
 Project ID (or EA): 05.1400.0050-K (05-1F750-K)
 Program Identification: SHOPP 201.122
 Phase: PID
 PA/ED
 PS&E

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

Is the Project required to consider Treatment BMPs? Yes No
 If yes, can Treatment BMPs be incorporated into the project? Yes No
 If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: _____

Total Disturbed Soil Area: 73 Acres Risk Level: 2
 Estimated: Construction Start Date: 11/15/2018 Construction Completion Date: 05/15/2020
 Notification of Construction (NOC) Date to be submitted: _____

Erosivity Waiver Yes Date: _____ No
 Notification of ADL reuse (if Yes, provide date) Yes Date: _____ No
 Separate Dewatering Permit (if yes, permit number) Yes Permit # _____ No

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

Aaron P. Henkel 4/21/14
 Aaron Henkel, Registered Project Engineer Date

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

John Luchetta 4/29/14
 John Luchetta, Project Manager Date

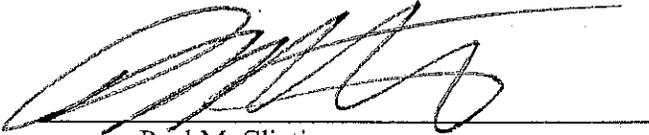
Chris Chalk 5/6/14
 Chris Chalk, Designated Maintenance Representative Date

Dennis Reeves 4/28/14
 Dennis Reeves, Designated Landscape Architect Representative Date

Andrew Prochwatka 5/9/2014
 Andrew Prochwatka, Regional Design SW Coordinator or Designee Date
 (Stamp Required for PS&E only) for

2R PROJECT CERTIFICATION

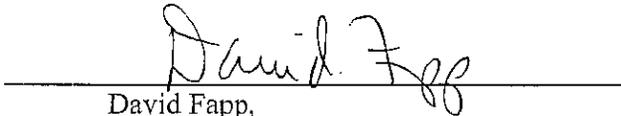
A Safety Screening, as required by Design Information Bulletin Number 79, was conducted for the segment of highway identified above in the project description.



Paul McClintic
Chief, District 5 Traffic Operations

Date: 2/21/2014

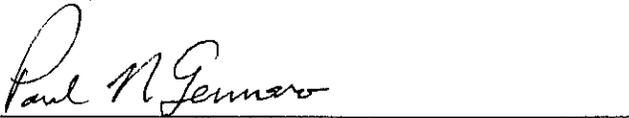
This project will be scoped and designed as a 2R Project per the guidance in Design Information Bulletin Number 79. The Safety Screening that was performed will be an integral part of the development of this project.



David Fapp,
Deputy District Director, Design

Date: 2-24-14

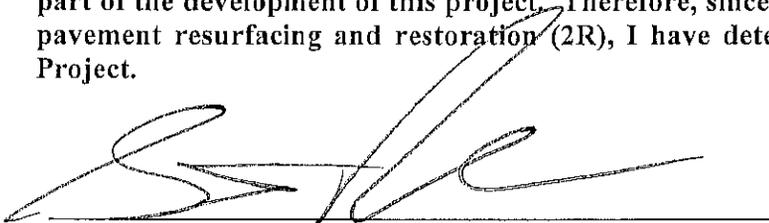
I concur with the 2R Purpose and Need of this project.



Paul Gennaro
Design Coordinator

Date: 2-25-14

I concur that this project should be scoped and designed as a 2R Project per the guidance in Design Information Bulletin Number 79 and that the Safety Screening associated with this project will be an integral part of the development of this project. Therefore, since the appropriate Purpose and Need for this project is pavement resurfacing and restoration (2R), I have determined that this project is to be delivered as a 2R Project.



Steve Price, District 5 Deputy Director
Maintenance and Operations

Date: 3/6/14

Notes:

1. This certification document shall be filed in the district project history files.
2. A copy of this Certification shall be sent to Headquarters Division of Design, attention Design Report Routing.

SAFETY SCREENING EVALUATION

The project segment is located in Monterey County on Route 101, from Post Mile (PM) R37.1 to PM R42.39, is composed of 4-lane divided freeway with two, 12 feet lanes in each direction. Median width varies from 70 feet at the beginning of this Evaluation (PM R37.1) to approximately PM R39.0 where it reduces to 46 feet for the remainder of the PM limits. Other than at bridge entrances and First Street overhead, there is no median barrier within the evaluation PM limits. Paved outside shoulders, excluding bridges, vary in width from 8 to 10 feet in width. Paved inside shoulders vary from 1 to 5 feet. There are 10 entrance ramps and 10 exit ramps within the post miles limits. Collision data is for the three-year period from 1 Jan 2009 to 31 December 2011, the most current available at the time of this report.

1.0: Fatal plus Injury (F+I) Accident Rate screen. This safety screen addresses the overall safety of the facility within the project limits. It must be passed to be eligible as a 2R project.

1.1 For projects on expressways with four lanes or more and freeways, the F+I accident rates must be below either the statewide average or 0.35 accidents per million vehicle miles (acc/mvm):

This project is entirely freeway with four lanes or more:

Actual F+I rate (0.22 col/mvm) > Statewide Average F+I Rate (0.16 col/mvm)
< 0.35 acc/mvm; Passes Safety Screen 1.1

1.2 For projects on other highway types, the F+I accident rates must be below both statewide average and 1.0 acc/mvm.

This project is entirely freeway with four or more lanes, Safety Screen 1.2 does not apply; Passes Safety Screen 1.2.

The proposed project passes Safety Screen 1.0

2.0: Highway Width Fatal & Injury screen. This screen addresses collisions related to roadway widths on 2 and 3 lane conventional highways, where shoulder widths are less than standard per DIB 79-03. This screen applies only to roadways where shoulders do not meet current RRR standards as discussed in DIB 79-03. It must be passed to be eligible as a 2R project.

This safety screen compares average and actual F+I collision rates related to highway width

(HW). HW collisions are defined as head-ons and side-swipes, plus collisions with primary locations of beyond right shoulder. It is recognized that other collision types may also be related to the highway width, but for this screen, only these parameters are to be used. The Highway Groups for this screen and the threshold percentage that apply to the corresponding group are listed in the table shown in DIB 79-03.

This project is entirely freeway with four or more lanes, Safety Screen 2.0 does not apply.

The proposed project passes Safety Screen 2.0

3.0: Safety Analysis. This safety screen addresses other potential safety issues that are not addressed by safety screens 1.0 and 2.0. Section 3.1 of this safety screen must be passed to be eligible as a 2R project. Improvements based on the analysis from Section 3.2 should be incorporated into the 2R project as discussed below.

3.1 The district Traffic Safety unit will perform a safety analysis to determine if there are other issues that would indicate general geometric improvements are needed. These issues can include items such as high fatal rates, and high collision rate related to narrow shoulders in Highway Groups not listed above. Projects failing to pass this threshold should be discussed with the Traffic Liaison and the Design Coordinator.

3.2 The safety analysis should also determine if there are cost effective geometric improvements at spot locations that should be included in the project. Typical spot location improvements include items such as intersection improvements and spot location shoulder or bridge widening. These improvements should be included in the 2R project if they do not significantly impact project cost nor will significantly delay the project. Spot improvements cost totaling less than 10% of the total project cost are not considered significant. A project that can be delivered in the target construction season or the same fiscal year is not considered significantly delayed.

If it is not feasible to include all such spot location improvements in the project, they should be developed as candidate projects in the appropriate program or justify why not.

A Safety Analysis report (attached) has been prepared for this project following the guidance given in Article 5, Chapter 9 of the Caltrans Project Development Procedures Manual. Please review this report for any issues that may indicate that general geometric improvements are needed.

A Safety Analysis report (attached) has been prepared for this project following the guidance given in Article 5, Chapter 9 of the Caltrans Project Development Procedures Manual. Please review this report for any issues that may indicate that geometric improvements are needed. Please see the attached Safety Analysis report for design considerations of cost effective improvements on this project. The attached Safety Analysis contains traffic safety and operational improvement recommendations and considerations. These improvements are intended to reduce collision rates, reduce maintenance worker exposure to traffic, and increase vehicular safety within the corridor.

The proposed project passes Safety Screen 3.0

4.0: Pedestrian and Bicycle Needs in or near Communities. The purpose is to address needs of pedestrians and bikes, and to improve general vehicular safety. Widening in areas of driveways allows a right turning vehicle the ability to use the shoulder thus clearing the traveled way as well as providing width to go around a left turning vehicle. This screen applies to conventional highways where shoulder widths are less than standard per DIB 79-03. This safety screen must be passed or shoulders must be widened to RRR standards to be eligible as a 2R project.

This proposed project is entirely freeway with four or more lanes. Safety Screen 4.0 does not apply because of the freeway designation. Bicyclists are permitted access over the Salinas River Bridge from Broadway northbound on-ramp (PM R41.3) and northbound on Route 101 to the end of the project limits. Similarly, bicyclists are allowed from the end of the project limits, on Route 101, southbound to PM R41.2. Both inside and outside shoulders on northbound Salinas River Bridge are 2 feet wide. Currently in the PA&ED design phase is the Salinas River Bridge Seismic Retrofit project (05-1C960K), which is to widen both the inside and outside shoulders and upgrade barriers.

The ADA Coordinator and Design have identified 4 possible ADA accessible curb ramps that are to be constructed, or reconstructed, on this project, see attached Safety Analysis. This ADA ramp work can be considered as part of a Pavement Focused 2R Project.

The proposed project passes Safety Screen 4.0

This project meets the criteria necessary to be developed as a 2R project under DIB 79-03.

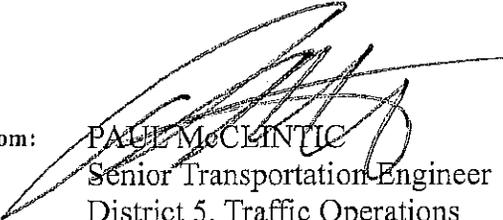
Memorandum

*Flex your power!
Be energy efficient!*

To: JOHN FOUCHE
Senior Transportation Engineer
Central Region Design II, Branch C

Date: February 21, 2014

File: 05-1F750K
MON-101-
R37.10/R42.39
2R vs.3R Screening

From: 
PAUL McCLINTIC
Senior Transportation Engineer
District 5, Traffic Operations

Subject: SAFETY ANALYSIS

A Safety Analysis has been performed as required during project development of the proposed 2R Roadway Rehabilitation project on State Route 101 in and near King City, in accordance with requirements given in Chapter 9, Article 5 of the Project Development Procedure Manual. The Project Initiation Form identified the project as MON-101-PM R37.1 to R42.0. The project development team has revised the current project limits, with concurrence from the District 5 Program Advisor, to the new project limits: MON-101-PM R37.1 to 42.39.

DESCRIPTION OF ROADWAY SEGMENT

Generally, the project location is a 4 lane divided expressway with an open 46 feet median. Paved inside shoulders range from 2 to 5 feet in width. Paved outside shoulders range from 8 to 10 feet, with the exception of NB Salinas River Bridge, No. 44-32, which has 2 feet inside and outside shoulders. Existing pavement in the shoulder areas range from poor to fair condition. Rumble strip on inside and outside shoulders exists from the project beginning (PM R37.1) to approximately R39.6 in the Northbound direction, and to approximately PM R39.85 in the Southbound direction. Rumble strip starts again at End of Bridge (EB) of Jolon Road U.C. to project end at PM R42.39. The existing PCC slabs that make up the lanes are in poor to good condition. There is a pavement overlay in good condition over the NB Salinas River Bridge. Proper signing is in place and visible, with adequate sight distance. This segment of State Route 101 has a posted speed of 70 MPH from PM R37.1 to R39.0, and 65 MPH from PM R39.0 to the end of the project limits. Topography in this area is flat, and the project limits span both Rural and Farming communities. Bicyclists are allowed access to Route 101 in both the northbound and southbound directions from PM R41.29 to the end of the project at PM R42.39.

The 2012 Traffic Volumes Book shows an Annual Average Daily Traffic volume ranging from 16,500 at Wild Horse Road Undercrossing to 27,000 at Jolon Road Undercrossing (PM R41.95). The 2012 Annual Average Daily Truck Traffic on the California State

Highway System Book shows a daily truck traffic volume ranging from 1,654 to 3,225 within the project limits. For future traffic volumes, contact District 5 Planning Division.

The following structures are located within the project limits:

Structure	Post Mile
Wild Horse Road U.C. 44-190	R37.31/R37.33
First Street O.C. 44-178	R39.77
San Lorenzo Creek Bridge 44-179	R40.37/R40.43
Canal Street U.C. 44-180	R40.71/R40.74
Broadway U.C. 44-127	R41.17/R41.20
Salinas River Bridge 44-32	S. R41.27/41.65 N. R41.36/41.71
Jolon road U.C. 44-181	R41.92/41.98

There are 10 off ramps and 10 on ramps within the project limits.

PROPOSED IMPROVEMENTS

Currently listed in the Status Of Projects (December 2013) there are four projects in various stages of project development that are within these proposed project limits. It is anticipated that the Office of Design, and more specifically, the project designers will work in conjunction with each other to maximize safety improvement efforts and dollars. Each project is discussed in further detail below.

05-1C0900 Roadside Safety Improvements, Monterey County

This project is located in Monterey County, on Routes 68 and 101, and in King City, Gonzales, and Salinas at various locations. This is a 201.235 Roadside Safety Improvement project. This project is currently in the PA&ED phase and is scheduled for Ready To List (RTL) on 18 July 2016. Proposed improvements within this projects post miles include contrasting surface treatment, slope paving, dike removal, maintenance vehicle pullout areas, crash cushion replacements, and other roadside safety improvements.

05-0T9900 Tree and MBGR Removal, PM 40.5/ 55.0

This project proposes to remove approximately 300 eucalyptus trees within the State's Right of Way (R/W) of Route 101. This project is currently in the PA&ED phase and is scheduled for Ready To List (RTL) on 15 October 2015. Proposed improvements within this projects PM are tree removal, update drainage systems, MBGR removal, re-planting, and maintenance pullout areas. This project is planning to establish planting and a maintenance vehicle pullout area within the 05-1F750 project limits.

05-1C960 Seismic Retrofit, Salinas River Bridge

This project proposes to seismically retrofit the NB Salinas River Bridge, as well as widen both inside and outside shoulders to current standards, and update concrete barrier. This project is currently in the PID phase and is scheduled for RTL on 1 May 2018.

05-0R530 ADA Curb Ramps

This project will upgrade ADA curb ramps at 43 locations within San Luis Obispo and Monterey counties. RTL for this project was 27 Dec 2013. It is anticipated the contract will be awarded on 24 February 2014. Specifically within this proposed 2R project limits (05-1F750K, R37.10/R42.39) the ADA project will address ADA curb ramps at the on and off ramps at Wild Horse Road, the NB on-ramp and the SB off-ramp at First Street, and the on and off-ramps at Canal Street. Construction should begin Spring 2014.

TRAFFIC DATA

The collision rates within the project limits for the most recent 3-year study period, 1 Jan 2009 to 31 Dec 2011, are as follows:

COLLISIONS PER MILLION VEHICLE MILES

Route 101	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
PM R37.1 to R42.39	0.028	0.22	0.72	0.004	0.16	0.45

There were 76 collisions (20 injury, 3 fatal, 30 multi vehicle, 14 wet, and 22 dark) reported within the project limits. A review of the types of collisions and the primary collision factors found the following:

TYPES OF COLLISIONS

Head-on	1	Sideswipe	14
Rear End	10	Broadside	1
Hit Object	37	Other	13

PRIMARY COLLISION FACTOR

Influence of Alcohol	5	Improper Turn	30
Speeding	23	Other Violations	13
Other Than Driver	4	Unknown	1

The following are the Objects Hit and the number of times of occurrence: Fence (4), Object in road (1), Pole/ Post (6), Metal Beam Guard Rail (8), Dike/ Curb (4), Side of Bridge Rail (10), Temporary cones (1), Barrier (3), and Unknown (2).

SAFTEY ANALYSIS, KING CITY

February 3, 2014

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The following are the locations of the collisions and the number of occurrence: Beyond Shoulder Drivers Right (30), Beyond Shoulder Drivers Left (14), Beyond Median Left (2), Left Lane (9), Right Lane (17), Right Shoulder (1), Other (1), and Unknown (2).

The collision history for the same 3-year study period, 1/1/2009 to 12/31/2011, was accomplished for each of the ramps within the project limits with the following results:

COLLISIONS PER MILLION VEHICLE MILES, RAMPS

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB off-ramp to Wild Horse Rd, PM R37.13	0	0	0	0.007	0.34	1.04

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB on-ramp from Wild Horse Rd, PM R37.15	0	0	0	0.004	0.17	0.53

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB on-ramp from Wild Horse Rd, PM R37.45	0	0	0	0.004	0.17	0.53

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB off-ramp to Wild Horse Rd, PM R37.47	0	0	0	0.007	0.34	1.04

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB on-ramp from First St, PM R39.58	0	0	0	0.002	0.22	0.63

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB off-ramp to First St, PM R39.62	0	0	0	0.003	0.35	1.01

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB off-ramp to First St, PM R39.94	0	0	0.63	0.003	0.35	1.01

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB on-ramp from First St, PM R39.95	0	0	1.11	0.002	0.22	0.63

SAFETY ANALYSIS, KING CITY

February 3, 2014

Page 5 of 9

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB on-ramp from Canal St, PM R40.57	0	0	0	0.002	0.22	0.63

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB off-ramp to Canal St, PM R40.59	0	0.85	1.70	0.003	0.35	1.01

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB off-ramp to Canal St, PM R40.84	0	0.32	0.64	0.003	0.35	1.01

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB on-ramp from Canal St, PM R40.86	0	0	0	0.002	0.22	0.63

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB on-ramp from Broadway, PM R41.03	0	0	0	0.001	0.13	0.46

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB off-ramp to Broadway, PM R41.05	0	0	0	0.003	0.35	1.01

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB on-ramp from Broadway, PM R41.29	0	0.19	0.19	0.003	0.18	0.57

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB off-ramp to Broadway, PM R41.19	0	0.2	0.6	0.004	0.33	1.00

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB on-ramp from Jolon Rd, PM R41.76	0	0	0	0.002	0.22	0.63

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB off-ramp to Jolon Rd, PM R42.05	0	0	0.79	0.003	0.3	1.06

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
SB off-ramp to Jolon Rd, PM R42.1	0	1.07	3.22	0.003	0.35	1.01

Ramp	Actual			Average		
	Fatal	F+I	Total	Fatal	F+I	Total
NB on-ramp from Jolon Rd, PM R42.26	0	0	0	0.003	0.18	0.57

Of the 20 ramps reviewed, 16 returned collision history that was lower than the statewide average for similar facilities. For these ramps, further analysis does not appear to be necessary at this time. The other four ramps are discussed in more detail below:

NB on-ramp from First St, PM R39.95

2 collisions occurred, both at the ramp terminus area while trying to make a right turn onto First St. NB on-ramp from First Street. Both vehicles hit the curb, and speeding was the primary collision factor. 5/16/09, 01:25: Collision occurred at night, with dry pavement conditions. 5/17/10, 12:40: Collision occurred during the day, under cloudy and wet conditions.

NB off-ramp to Canal Street, PM R40.59

2 collisions occurred at the ramp terminus. 7/21/09, 09:15: This rear end, injury collision occurred under clear, dry and daylight conditions. After stopping vehicle 1 behind vehicle 2, Person 1 released his brake causing his vehicle to rear end Person 2's vehicle. P2 complained of back pain and was 9 months pregnant. 5/29//2011, 09:15: This broadside collision was located on Canal Street, under clear, dry, and daylight conditions. Person 1 entered into the intersection before it was safe to do so.

NB on-ramp from Broadway, PM R41.29

7/6/2010, 17:35: This injury, hit and run collision was miscoded as a ramp collision. This sideswipe collision occurred on State Route 101 in the NB lanes, under clear, dry, and daylight conditions. Person 1 merged into #1 lane due to a van entering expressway from Broadway On-ramp. Person 1 sideswiped Person 2's vehicle.

SB off-ramp to Jolon road, PM R42.1

Three collisions occurred on this ramp. 6/3/2009, 19:00: This rear end collision occurred at the ramp terminus under clear, dry, and daylight conditions. After stopping his vehicle behind vehicle 2, Vehicle 2 started to proceed into the intersection and then re-stopped to allow another vehicle on Jolon road to pass before entering intersection. Person 1 released his brake causing his vehicle to rear end Person 2's vehicle as his head was turned to see if it was clear to proceed. 6/27/2009, 17:17: This injury, rear end collision occurred at the ramp terminus under clear, dry, and daylight conditions. Person 1 was stopped at the intersection when Person 2 failed to stop in time to avoid hitting Person 1's vehicle. 5/21/2010, 06:40: This rear end collision occurred at the ramp terminus, under

clear, dry, dawn conditions. After stopping his vehicle behind vehicle 2, Person 2 started to move slowly forward to see if intersection was clear, Person 1 started to move forward and rear end Person 2's vehicle.

RECOMMENDATIONS

- ~ ADA ramps at Broadway on and off-ramps. Check R/W limits for possible inclusion of sidewalks within R/W. Check with District 5 ADA coordinator Kathy DiGrazia for further details and limits of ADA work. Jolon Road does not require ADA curb ramps at this time..
- ~ Remove curb and dike throughout project limits that do not have a drainage function as well as replace all curb and dike that are not standard height. Some re-grading will be necessary at locations with existing 8 to 12 inch dike.
- ~ Remove curb at on and off-ramp gores.
- ~ Refresh all pavement delineation including aircraft markings within Caltrans R/W.
- ~ Widen and repair inside shoulders on Route 101 to 5 feet. Install rumble strip and safety edge where dike or curb is not present. Place shoulder backing as required.
- ~ Repair and/ or overlay outside shoulders and install rumble strip and safety edge where dike or curb is not present. Place shoulder backing as required.
- ~ Install Safety Edge where dike or curb is not installed.
- ~ Retain vertical clearance at First Street overcrossing structure.
- ~ Raise existing MBGR to 29 inches, or replace with MGS railing throughout project limits.
- ~ Install anchor blocks, WB connections, and terminal sections at all approach and departure bridge rails and concrete barriers in accordance with Revised Standard Plan RSP A77Q1-5. i.e. Midwest Guardrail System Typical Layouts for Structure Approach
- ~ Install anchor blocks and STB connections at all bridge connections and concrete barrier where thrie beam is existing or being utilized.
- ~ Install "Curve Sharpens" sign in head on position (facing south) from Route 101 at merge section of NB Broadway on-ramp, and north of existing Chevron signs, PM 41.3. Contact Traffic Safety for signage size and placement details.
- ~ Replace median MBGR with MGS railing at First Street overcrossing in accordance with RSP A77R1 Midwest Guardrail System Typical Layouts for Fixed Objects Between

Separate Roadbeds (Two Way Traffic). Placement of MGS railing may need to be extended due to drainage feature north of First Street Overhead columns in median.

~ Install WB connection, approximately 1500 feet of MGS railing, and anchor block with WB connections on inside and outside shoulders, NB between Salinas River Bridge and Jolon Road U.C.

~ First Street NB off-ramp and First Street: Install anchor block and WB connection with terminal end treatment for southwest corner of First Street O.C.

~ First Street NB off-ramp: Reset two utility boxes, right shoulder.

~ First Street NB on-ramp, NE corner and on First Street: Replace MBGR with MGS and extend approximately 1000 feet to 120 feet north of over side drain, right shoulder, near ramp inlet.

~ Canal Street NB on-ramp: Remove approximately 500 feet of 8 to 12 inch dike and re-grade slope.

~ Canal Street NB on-ramp: Reset utility box right shoulder.

~ Broadway NB off-ramp: Reset utility box right shoulder.

~ Broadway NB off-ramp: Replace 2 posts (sign) and make breakaway, at ramp terminus, right shoulder.

~ Broadway NB off-ramp: Check stop sign (R1-1) for proper height of 7 feet. Replace if necessary.

~ Broadway NB on-ramp: Extend MBGR, or MGS if new rail to shield utility pole near ramp inlet, right shoulder.

~ Jolon Road SB on-ramp to Salinas River Bridge: Replace MBGR with MGS railing and extend up to 200 feet north, right shoulder. Connect to Salinas River Bridge with Anchor block and WB connections, right and left shoulders.

~ Canal Street SB off-ramp: Reset utility box, right shoulder near gore.

~ First Street NB off-ramp: Reset utility box, right shoulder near illuminare.

CONSIDERATIONS

~ Replace approximately 200 feet of MBGR with concrete barrier, at bridge approach NB right shoulder to Salinas River Bridge. Then WB connection with additional 75 feet of MGS with end treatment. Move Call Box.

- ~ Extend culverts and headwalls out of clear recovery zone.
- ~ Raise D.I. NB right shoulder at PM 39.9 and 40.07.
- ~ Raise D.I. in gore, NB off-ramp to Jolon Road, PM 42.06.
- ~ First Street NB off-ramp, 25 feet south of beginning of MBGR: Remove 25 feet of dike and regrade shoulder.
- ~ First Street NB off-ramp: Move utility pole out of clear recovery zone or shield.
- ~ Canal Street NB off-ramp: Raise D.I. at ramp terminus if overlay on ramp.
- ~ Canal Street NB off-ramp: Repair and/ or replace gutter along right shoulder.
- ~ Canal Street NB on-ramp: 8 feet shoulder reduces to 7 feet due to placement of mountable dike. Possible 1 foot widen shoulder throughout auxiliary lane and replace mountable dike.
- ~ Jolon Road, NB off-ramp/ NB on ramp: Check R/W and Maintenance Agreements for MBGR located in right shoulder in curve. Existing height of MBGR is 23 inches. Replace with MGS if possible.
- ~ Jolon Road SB off-ramp: Raise D.I. in right shoulder at right terminus.
- ~ Canal Street SB off-ramp: Repair small shoulder failure from drainage, right side near gore.

TRAFFIC SAFETY CONTACT

A traffic representative will be available for a filed review of the proposed project. Should you have any questions, or require further information, please contact Mark Ballentine at (805) 549-3024 or myself, at (805) 549-3473.

Field Review
EA 05-1F790 & 05-1F750

8 April 14

Person	Department	
Aaron Henkel	DESIGN	
Mack Ballantine	TRAFFIC	ex 3024
JOHN FOUCHÉ	DESIGN	5493330
Kelly McClain	Misc. Design	549-3278

CENTRAL REGION PID DISTRIBUTION LIST

Division	Project	Project	Count
HQ Division of Design	All Projects	Design Report Routing	1
HQ Program Advisor	SHOPP	HQ Program Advisor gets one copy but do not duplicate other Advisors listed below. For Program Advisors not listed, refer to http://crweb/pjd/docs/CR_SHOPP_Program_Advisors.xlsx	1
HQ Division of Engineering Serv	All Projects	Division of Engineering Services	5
HQ Transportation Programming	SHOPP	Rick Guevel	
HQ Environmental	All Projects	Bob Pavlik	1
HQ Maintenance	HA22	Leo Mahserelli	1
Project Manager	All Projects	Project Manager	1
Design Manager	All Projects	Design Manager	2
Resident Engineer	All Projects	Resident Engineer	1
District Maintenance	All Projects	Lance Gorman	1
	D6 Eastern Kern		0
	SHOPP	Kelly McClain	1
District Traffic Management	All Projects	Jacques Van Zeventer	1
District Traffic Safety	Mon	Mark Ballantine	1
Region Traffic Design	All Projects	Mohammed Qatami	1
District Traffic Operations	All Projects	Paul McClintic	1
Region Materials	All Projects	Boug Lambert ERIC KARLSON	1
Region Environmental	All Projects	Susan Schilder	1
Region Landscape	All Projects	Dennis Reeves	1
Region Right of Way	All Projects	Nick Dumas	1
District Planning	All Projects	Claudia Espino	1
PPM	All Projects	Linda Araujo	1
District Single Focal Point	All Projects	No Copy	0
Surveys	All Projects		0
	All Projects	Jeremy Villegas	1
	Mon/SC/SBt	Bob Fredricks	1
District Records	All Projects	Pat Duty (electronic copy only)	0
TOTAL COPIES		District 5	27