06-Kin-5-PM 9.0/16.5
20.20.201.122
Project ID 0612000086
October 2011

PROJECT SCOPE SUMMARY REPORT (ROADWAY REHABILITATION)

To

Request Programming in the 2012 SHOPP And Provide Project Approval

On Route 5 in Kings County near Kettlemen City

Between 3.3 Miles South of Utica Avenue Overcrossing

And Route 5/41 Separation

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

SPIROS KARIMBAKAS
DISTRICT DIVISION CHIEF- RIGHT OF WAY

APPROVAL RECOMMENDED:

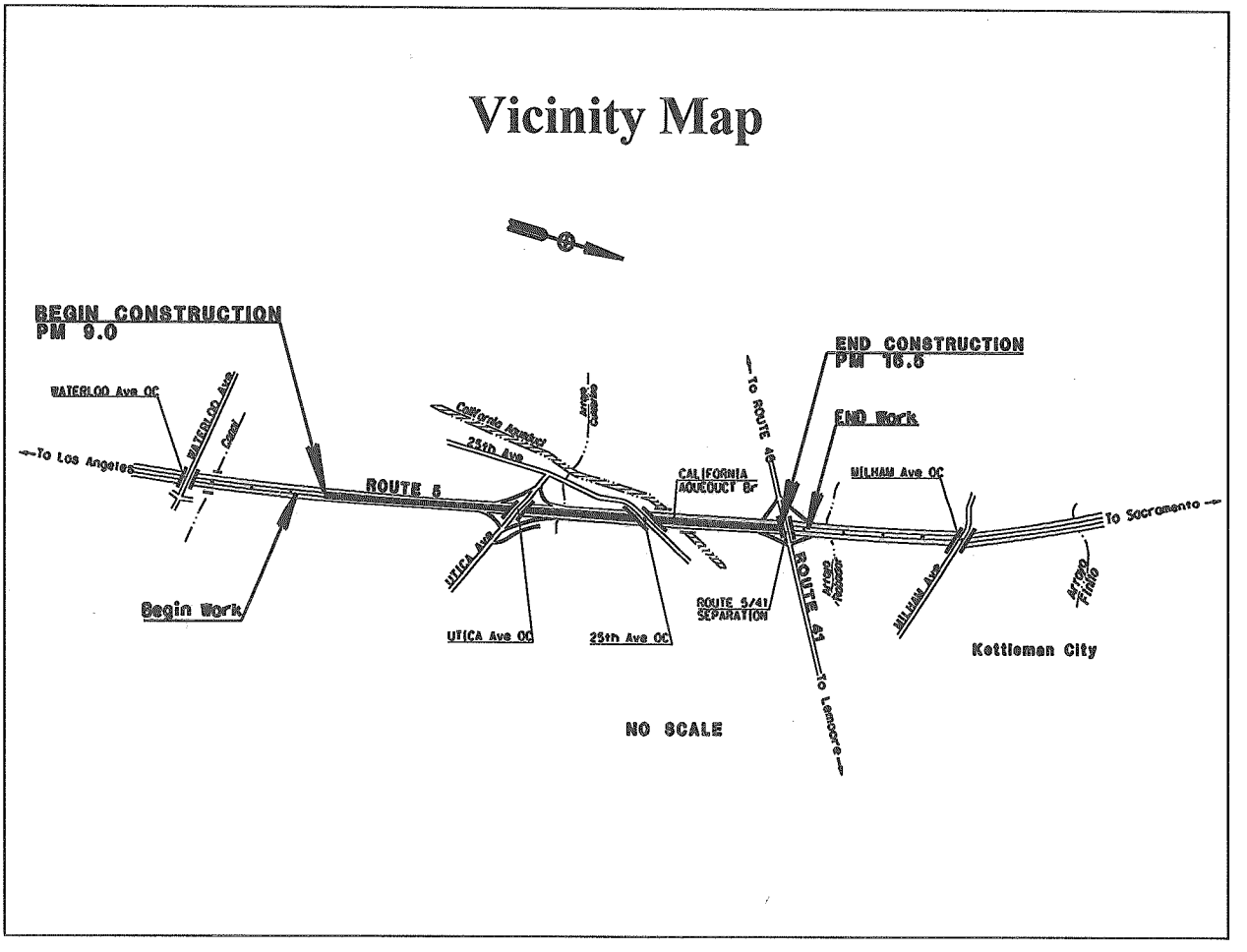
CHRIS GARDNER
PROJECT MANAGER

APPROVED:

SHARRI BENDER-EHLERT
INTERIM DISTRICT 6 DIRECTOR

10/25/2011
DATE

Vicinity Map



On Route 5 in Kings County near Kettlemen City

Between 3.3 Miles South of Utica Avenue Overcrossing

And Route 5/41 Separation

This Project Scope Summary Report has been prepared under the direction of the following Registered Engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Rodrigo M. Cruz
REGISTERED CIVIL ENGINEER

10-21-11
DATE

Table of Contents

Table of Contents

1. INTRODUCTION AND BACKGROUND

Brief Project Description:

The Safety Screening (Attachment D) has identified that this is a "pavement focused" (2R) project that proposes to rehabilitate the existing pavement on State Route 5 in Kings County near Kettlemen City from 3.3 miles south of Utica Avenue Overcrossing to the Rte 5/41 Separation (Attachment A).

It is proposed for the pavement to be rehabilitated by cold plane and replacing the 0.35' layer of Asphalt Concrete on the number two lane with Dense Graded Hot Mixed Asphalt (DGHMA) (Type A), remove and replace failed panels in the number two lanes with 1.08' full depth DGHMA (Type A) and then cap the entire roadway width including the shoulder with 0.20'/0.20' Rubberized HMA (Type G)/HMA (Type A) (See Attachment B).

All work will be within the existing State right of way.

See the 6-page Cost estimate (Attachment J) for specific work items included in this project.

Project Limits	06-Kin-5-PM 9.0/16.5
Capital Costs:	$ 13,587,000.00
Right of way Costs:	$3,750.00
Funding Source:	Pavement Preservation 20.20.201.122
Number of Alternatives:	1
Recommended Alternative (for programming and scheduling):	Alternative 1
Type of Facility (conventional, expressway, freeway):	Freeway
Number of Structures:	4
Environmental Determination/Document:	Categorical Exemption/Categorical Exclusion
Legal Description	Kin 5 2R Rehabilitation

2. RECOMMENDATION

It is recommended that this project be approved and programmed in the 2012 SHOPP, Pavement Preservation Program (20.10.201.122) cycle and funded for 2013/14 FY.

3. PURPOSE AND NEED STATEMENT

Need:

The condition of the pavement within the project limits is severely deteriorated due to surface pavement failure. This has resulted in increasing cost of maintaining the existing pavement and the inability of state forces to continually maintain this section of freeway in good condition for the traveling public.

Purpose:

The purpose of this project is to restore the facility to a state of good repair and prolong the pavement life. It would also improve riding quality for traffic and reduce maintenance cost.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. ROADWAY GEOMETRIC INFORMATION

	Facility (1)	Min	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)
	Loc	Curve Radius	No. of Lanes	Lane Width	Type (Flex, Rigid, or Composite)	Left	Right	Width	Width	Width	(Y/N)	(Code/Width)
Existing	PM 9.0-16.5	N/A	4	12 foot	Flex	5 foot	10 foot	84 foot	N	N/A	N	N/A
Proposed	PM 9.0-16.5	N/A	4	12 foot	Flex	5 foot	10 foot	84 foot	N	N/A	N	N/A

Column "Other Bicycle Lane Width": Width of a bicycle lane that is outside the shoulder and is part of the traveled way.
Code for Column "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

* *Enter EXISTING Post Mile limits (Expand as needed, for varied geometrics.)*

** *Enter PROPOSED Post Mile (Expand as needed, for varied geometrics.)*

4B. CONDITION OF EXISTING FACILITY
(Repeat info for each homogeneous segment):

(1) Traveled Way Data

PMS Category (1-29) 7 Priority Classification (.1-.4) 0.3

Ride Score 36

*Rigid Pavement: *Flexible Pavement:
* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking % 32	Alligator B Cracking % 39
Faulting No	Patching % 17
Joint Spalls No	Rutting No
Pumping No	Bleeding No
Corner Breaks % No	Raveling No

Locations(s) of subsurface or ponded surface-water problem: None

Deflection Study Results (if available):

Remarks: Due to time constraints associated with the acceleration of this project, a Deflection Study has been waived. HQ Pavement, The District 6 SHOPP Manager and District 6 Maintenance has given concurrence of the waiver. A Deflection Study will be performed at the PS&E phase.

(2) Shoulder Data

The existing shoulders are 5 feet inside and 10 feet outside with rumble strips.

(3) Pedestrian Facility Data

Not applicable. Pedestrians are prohibited on this segment of State Route 5.

(4) Bicycle Path Data

Bicycle traffic is allowed on this segment of State Route 5.

4C. STRUCTURES INFORMATION

Structures	Replace Bridge Railings	Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/No.	(Y or N)	(Y or N)	(Y or N)	(Y/N)	#
Utica Ave OC/45-67	N/A	N	N	N	N/A
25th Ave OC/45-68	N/A	N	N	N	N/A
Cal Aqua Br/45-69	N/A	Y	Y	N	N/A
SR 5/41 Sep/45-70	N/A	N	Y	N	N/A

4D. VEHICLE TRAFFIC DATA

Present Year ADT 30,000

Construction Year ADT 36,500 20-Year ADT 58,000

DHV 14,800 40-Year ADT 93,000

D _____ % Trucks 30.5

*T.I. (20-Year) 15.5 ESAL (20-Year) 90,800,000

*T.I. (40-Year) 17.5 ESAL (40-Year) 248,640,000

Must correlate with T.I. in Materials Report

Safety Field-Review 09/27/11
(date)

Latest 3-year accident data (04-01-2007 to 03-31-2010)

Freeway Segment	Actual (MVM)			Statewide Average (MVM)		
	Fatal	F+1	Total	Fatal	F+1	Total
Kin 5 Northbound (PM 9.0/16.5)	0.016	0.14	0.39	0.010	0.16	0.45
Kin 5 Southbound (PM 9.0 /16.5)	0.000	0.10	0.16	0.010	0.16	0.45

Location(s) of Accident Concentration:
Kin 5 Northbound (PM 9.0/16.5), 48 accidents including 2 fatality
Kin 5 Southbound (PM 9.0/16.5, 19 accidents

The accident analysis does not indicate that there are any identifiable collision patterns that are correctable or any other issues requiring geometric improvements (See Attachment D).

4E. MATERIALS

A preliminary structural section and pavement rehabilitation recommendations have been prepared for this project dated October 3, 2011.

A Life Cycle Cost Analysis using the recommended 20-year asphalt strategy and placing a 40-year concrete overlay (JPCP) was prepared. The Equivalent Uniform Annual Cost (EUAC) for a 20-year asphalt overlay would cost approximately $1.5M compared to a 40-year concrete overlay option that amounts to approximately $2.0M. The initial cost for a 20-year asphalt overlay would be $33.0M and that of a 40-year concrete overlay would be $44.0 M.

5. CORRIDOR AND SYSTEM COORDINATION

This project is consistent with the Caltrans Maintenance program. There are presently no projects planned in the vicinity of this project.

6. ALTERNATIVES

6A. REHABILITATION STRATEGY:

ALTERNATIVE 1
The scope of work will include cold plane and replacing the existing 0.35' layer of AC on the number two lane with DGHMA (Type A), remove and replace failed panels in the number lane with 1.08' full depth DGHMA (Type

A) and then cap the entire roadway width including shoulder with 0.20'/0.20' RHMA (Type G)/DGHMA (Type A).

The four ramps at Utica Ave Overcrossing (Bridge No. 45-67) and the two ramps at Route 5/41 Separation (Bridge No. 45-70) will be cold planed 2 inches and overlaid with 2 inches of RHMA (Type G).

Transition lengths will be utilized at the beginning and end of project to ensure a smooth ride. Imported shoulder backing will be placed and metal beam guard rail will be reconstructed where needed. Existing drainage inlets along the outside shoulders will be raised to grade. Thermoplastic striping, dikes, rumble strips and detection loops will be replaced throughout the project limit where needed. All work will be within the existing State right of way. See the 6-page cost estimate for specific work items included in this project.

ALTERNATIVE 2

The "No-Build" alternative is not considered viable because without rehabilitation, deterioration of the pavement will continue and will result in costly maintenance and on-going impacts to the traveling public.

6B. DESIGN EXCEPTIONS:

Both Mandatory and Advisory Design Exception fact sheets will not be required for geometric design features. However, all newly proposed nonstandard features will be documented as appropriate.

6C. ENVIRONMENTAL COMPLIANCE:

The project is Categorically Exempt under Class 1 of the California Environmental Quality Act (CEQA) guidelines and Section 6004 Categorical Exclusion under National Environmental Policy Act (NEPA). See Attachment F.

6D. HAZARDOUS WASTE DISPOSAL SITE REQUIRED? IF YES, WHERE ARE SITES?

Disposal of thermoplastic traffic stripe material and aerial deposited lead will be addressed in the Caltrans Standard Specifications and Special Provisions.

6E. OTHER AGENCIES INVOLVED (PERMITS/APPROVALS FROM FISH & GAME, CORPS OF ENGINEERS, COASTAL COMMISSION, ETC.):

No other agencies are involved. No permits/approvals from other agencies are anticipated.

6F. MATERIALS AND OR DISPOSAL SITE NEEDS AND AVAILABILITY?

Disposal sites will be needed for surplus grinding material and will be the responsibility of the contractor to secure.

6G. HIGHWAY PLANTING AND IRRIGATION:

Not applicable.

6H. ROADSIDE DESIGN AND MANAGEMENT:

Not applicable.

6I. STORMWATER COMPLIANCE:

A short form Storm Water Data Report (SWDR) has been prepared and approved for this project (See Attachment K). Project activities create less than one acre of disturbed soil area. Therefore, a Storm Water Pollution prevention plan is not required under Caltrans Statewide permit, and it is not necessary to file a Notice of Construction with State Board to obtain coverage of the Construction General Permit. Nevertheless, Caltrans own minimum standards require implementation of a Water Pollution Control Program (WPCP) which should adequately address protecting surface water quality from pollution.

6J. RIGHT OF WAY ISSUES: INCLUDE UTILITY ISSUES IN GUIDANCE:

All work will be performed within the existing right of way and no additional right of way will be required. It is anticipated that there will not be any utility involvement, however due to the time constraints associated with developing this project report, a utility search has not been conducted. This will be performed at the design phase.

6K. RAILROAD INVOLVEMENT:

Not applicable.

6L. SALVAGING AND RECYCLING OF HARDWARE AND OTHER NON-RENEWABLE RESOURCES:

Not applicable.

6M. PROLONGED TEMPORARY RAMP CLOSURES:

Ramps will only be closed during resurfacing work but consecutive ramps will not be closed at the same time.

6N. RECYCLED MATERIALS:

Asphalt concrete grindings will be considered for recycling during the design phase.

6O. LOCAL AND REGIONAL INPUT:

Not applicable.

6P. WHAT ARE THE CONSEQUENCES OF NOT DOING THIS ENTIRE PROJECT?

The roadway will continue to deteriorate resulting in increased maintenance cost and exposing maintenance workers to high-speed traffic and potentially causing delay to motorists.

6Q. LIST ALL ALTERNATIVES STUDIED, COST, REASONS NOT RECOMMENDED, ETC.:

- CAPM Project: This alternative was rejected because of the area's high temperature, truck traffic and high amount of recurring distress.
- Truck Lane Replacement with Portland Cement Concrete: This alternative was rejected due to the Life Cycle Cost Analysis.
- Rigid Pavement (40-year design): This alternative was rejected due to significantly high cost.
- Do nothing: Do nothing will allow deterioration to continue which will result in a costly maintenance and will impact the traveling public.

7. TRANSPORTATION MANAGEMENT

7A. TRANPORTATION MANAGEMENT PLAN

Preliminary traffic impacts and mitigation for this project have been outlined in the attached Transportation Management Plan (TMP) Data Sheet (See Attachment L). Costs associated with the traffic impact mitigation measures listed in the TMP Data Sheet have been included in this document estimate.

A TMP for this project is required and will be requested when the design is complete enough to determine specific traffic impacts, but early enough to make design changes/additions required for traffic mitigation.

A three-day lane closure, approximately one to one a half mile long is being recommended by Construction to take the number two lane continuous from Tuesday 6 AM to Thursday 6 PM when doing the sequence of work for cold plane, locating panels to be repaired and replacing panels at full depth HMA and then paving the final HMA lift. Lane closure charts and a detailed TMP will be provided during the design phase. Daytime work is anticipated for this project.

7B. VEHICLE DETECTION SYSTEMS

Not anticipated.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

The project is Categorically Exempt under Class 1 of the California Environmental Quality Act (CEQA) guidelines and Section 6004 Categorical Exclusion under National Environmental Policy Act (NEPA). See Attachment F.

Date Approved: 09/16/11

9. FUNDING/SCHEDULING

9A. COST ESTIMATE

Pavement & Misc Work	Lane-Miles	Number	*Cost
Lane Miles	30		
RHMA (Type G)	43,300 Ton		$ 3,460,000
DGHMA (Type A)	73,800 Ton		$5,529,000
Cold Plane AC Pavement	105,600 CY		$ 158,500
Remove Concrete Pavement	3,800 CY		$ 475,000
Shoulder Backing	8,600 Ton		$ 137,500
Metal Beam Guard Rail Upgrade	Lump Sum		$ 80,000
Adjust DIs	Lump Sum		$ 25,000
Rumble Strip	1,600 sta		$ 25,000
Electrical	Lump Sum		$ 95,000
Traffic Delineation/Signs	Lump Sum		$ 71,000
Traffic Management Plan	Lump Sum		$ 187,000
Water Pollution Control	Lump Sum		$ 72,200
	COSTS SUBTOTAL		$10,347,000
Other Minor Items (5%)			$ 518,000
Roadway Mobilization (5%)			$ 544,000
Supplemental Work (5%)			$ 544,000
Contingencies (15%)			$ 1,630,000
	COSTS SUBTOTAL		$ 3,236,000
	TOTAL CONSTRUCTION COST		$13,583,000

9B. PROJECT SUPPORT & CAPITAL COST:

(Capital Cost Estimate provided by Design & R/W, Support Cost Estimate from XPM.)

Project Cost Component	Fiscal Years						Total
	11/12	12/13	13/14	14/15	15/16	16/17	
R/W Capital		$4					$4
Const. Capital**			$14,410				$14,410
PA&ED*							
PS&E*		$724					$724
R/W Support*		$15					$15
Const.Support*			$1,075				$1,075
Total		$743	$15,485				$16,228

All costs X$1000. Support Categories are the same as those identified by SB45.

*** Construction Capital escalated at 3%. Right of Way Capital estimate is escalated.*

** Support cost escalated at 3.1%*

Support Cost ratio: 13% [All Support Costs (*) divided by the sum of the escalated Construction Capital (**) and the escalated R/W Capital]

9C. PROJECT SCHEDULE:

Milestones	Delivery Date (Month, Day, Year)
PA&ED	11/01/2011
Project PS&E	06/03/2013
Right of Way Certification	09/01/2013
Ready to List	10/01/2013
Approve Contract	03/01/2014
Contract Acceptance	07/01/2015
End Project	07/01/2017

10. FEDERAL COORDINATION

This project is eligible for federal-aid funding and is considered to be STATE-AUTORIZED under the 2007 FHWA-Caltrans Stewardship Agreement.

11. SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER:

Attachment I Date 09/27/11

12. PROJECT REVIEWED BY:

Field Review	Task Force Scoping Team	Date 09/27/11
District Maintenance	Bill Moses	Date 10/20/11
District Safety	District Safety Review Committee	Date 10/19/11
District Materials	Ahmad Shokrpoor	Date 10/19/11
HQ Design Coordinator/Reviewer	Christine Inouye	Date 10/21/11
HQ Maintenance Program	Ron Jones	Date 10/20/11
FHWA		Date
Others		Date

13. ATTACHMENTS

A. Vicinity Map
B. Typical Cross Section
C. Conceptual Report
D. Safety Screening
E. 2R Certification
F. Categorical Exception / Programmatic Categorical Exclusion Statement
G. Right of Way Data Sheet
H. Pavement Condition Survey Inventory
I. Constructability Review Roster
J. 6-Page Cost Estimate
K. Storm Water Data Report
L. Transportation Management Plan Data Sheet
M. Risk Management Plan

c: FHWA – Dominic Hoang
HQ Division of Design (2)
HQ Environmental – Bob Pavlik
HQ Maintenance – Ron Jones
HQ SHOPP Program Advisor -
Project Manager – Chris Gardner
Design Manager – Jun Xu
Resident Engineer
Regional Materials – Ted Mooradian
Regional Environmental – Susan Schilder
Region Right of Way – Nick Dumas
District Planning – Steve Curti
PPM – Andrea Nason
District Surveys – Hanna Kassis (elect copy only)
District Records – Beverly Connolly (elect copy only)

ATTACHMENT A – Vicinity Map

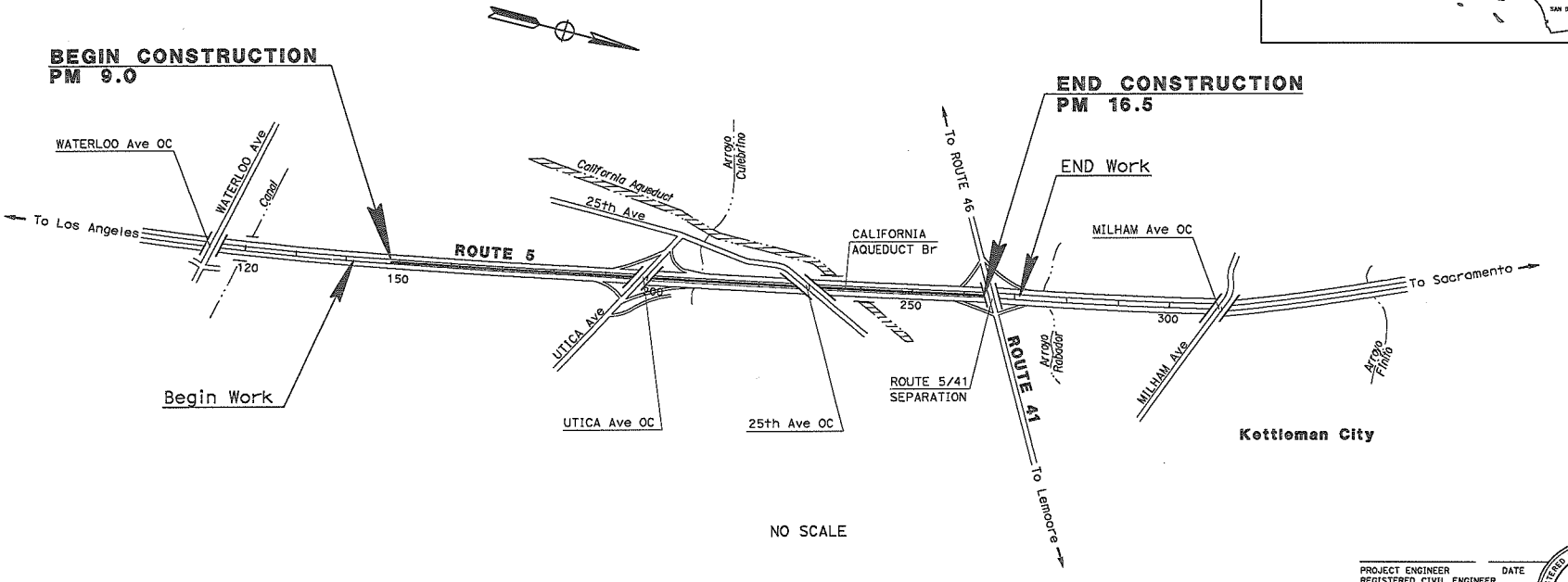
INDEX OF PLANS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN KINGS COUNTY NEAR KETTLEMEN CITY
FROM 3.3 MILES SOUTH OF UTICA AVENUE OVERCROSSING
TO ROUTE 5/41 SEPARATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	5	9.0/16.5		



NO SCALE

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

PID

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.

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

DESIGN ENGINEER: JUN XU
PROJECT MANAGER:

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

CONTRACT No.	06-0P1804
PROJECT ID	0612000086

LAST REVISION 08-30-11
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TIME PLOTTED => &TIME

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ATTACHMENT B – Typical X-sections

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	5	9.0/16.5		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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.

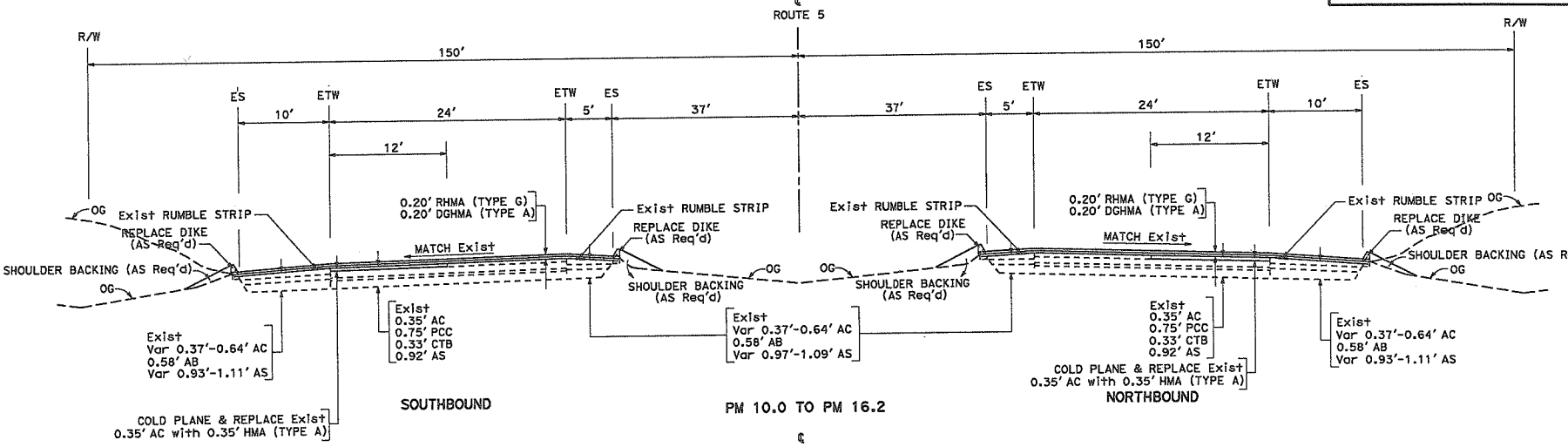
PRELIMINARY PLAN (SUBJECT TO REVISION)

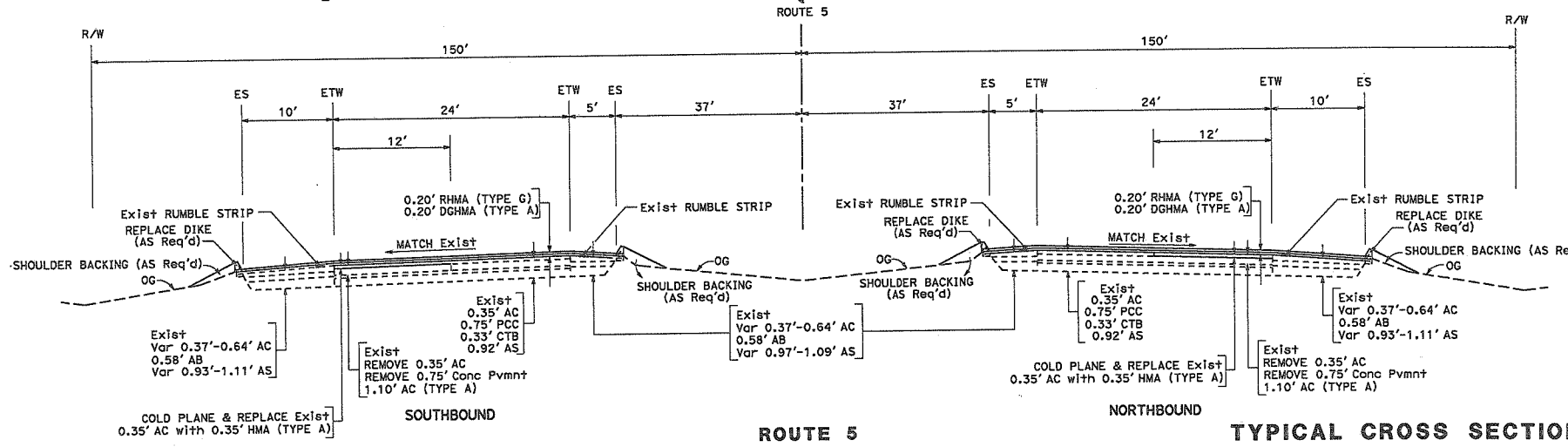
NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES IN THE STANDARD SPECIFICATIONS.

ABBREVIATION

HB HIGH BINDER





ROUTE 5
PM 9.0 TO PM 10.0

TYPICAL CROSS SECTIONS

NO SCALE

X-1

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR: JUN XU
CALCULATED-DESIGNED BY: ROD CRUZ
CHECKED BY
REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1463

PROJECT NUMBER & PHASE 0612000086

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	5	9.0/16.5		

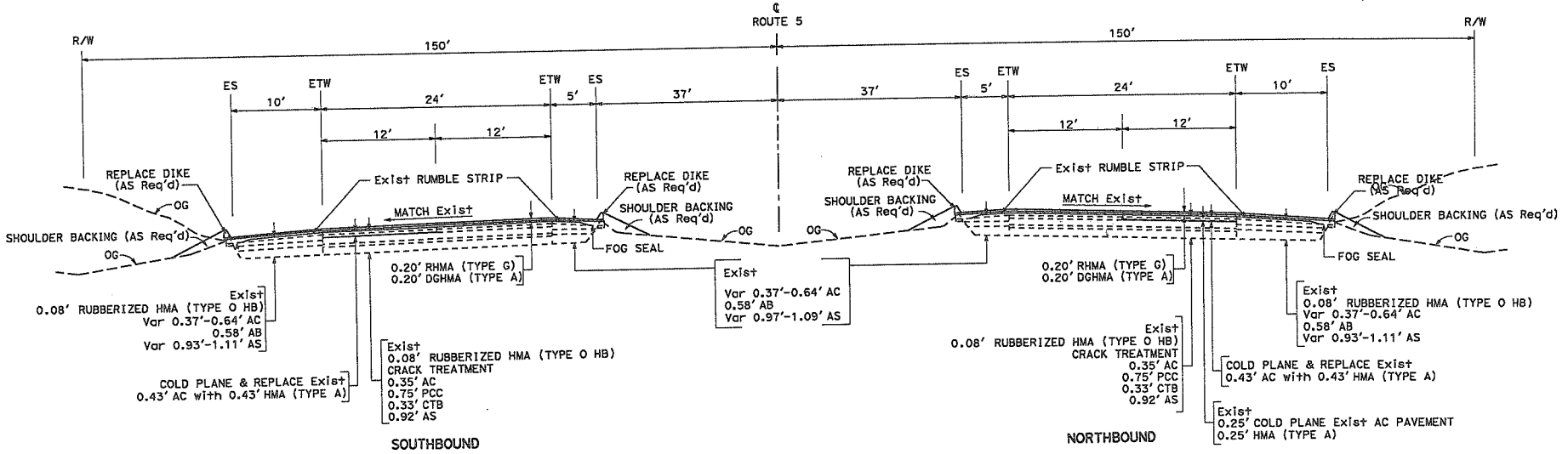
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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.

PRELIMINARY PLAN (SUBJECT TO REVISION)



ROUTE 5

PM 16.2 TO PM 16.5

TYPICAL CROSS SECTIONS

NO SCALE

X-2

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FUNCTIONAL SUPERVISOR: JUN XU
CALCULATED-DESIGNED BY: ROD CRUZ
CHECKED BY
REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1463

PROJECT NUMBER & PHASE 0612000086

LAST REVISION DATE PLOTTED => 11-OCT-2011
10-10-11

ATTACHMENT C – Conceptual Report

06-0P180K
Kin-5-PM 9.0/16.5

CONCEPTUAL REPORT

It is proposed to rehabilitate (2R) the existing northbound and southbound lanes of asphaltic concrete pavement of Interstate 5 in Kings County, near Kettlemen city from 3.1 mile South of Utica Ave to the 5/41 Junction.

The proposed 2R project cost is estimated at $14,600,000 and is to be funded from the 2012 SHOPP Pavement Rehabilitation Program (20.10.201.122) in the 2015/16 F Y.

BACKGROUND AND DEFICIENCY

Interstate 5 is functionally classified as a principal arterial in the national highway system and runs in the North and South direction with 31 percentage of truck traffic.

The existing PCC pavement within the project limits had a crack & seat project with an asphalt overlay of 0.35 feet with several panel replacement projects thereafter.

PROPOSAL

It is proposed to rehabilitate Interstate 5 within the project limits by cold planing and replacing the existing 0.35 foot layer on the # 2 lane with HMA (Type A) and fabric, remove and replace failed panels in the # 2 lanes with HMA (Type A) repave and cap the entire width of pavement with RAC (Type G) as recommended by materials lab and the Deflection Study Report. This strategy is in compliance with Caltrans policies reducing costs and impacts to the traveling public and the transportation of goods.

Other alternatives that have been considered and not accepted were:

1. A CAPM project. This alternative was rejected because of the high amount of recurring distress.
2. Truck lane replacement with Portland Cement Concrete, this alternative was rejected due to cost/time verses benefit analysis.
3. Do nothing. This alternative was rejected because doing nothing will allow further deterioration of the pavement and ride which will result in costly maintenance and will impact the traveling public.

ENVIRONMENTAL AND RIGHT-OF-WAY CONCERNS

There is no additional right-of-way required for this project. No significant environmental impacts are known at this time.

PROJECT PERSONNEL

District 06 (201.120) Coordinator — Akmal Mostafa — 559-488-4114

APPROVAL RECOMMENDED BY

Bill Moses, District 06 Maintenance Engineer

8-21-2011
Date

Attachment: Pavement Condition Survey

ATTACHMENT D – Safety Screening

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Bill Moses
District 6 - Maintenance Engineer

Attn: Akmal Mostafa

Date: September 15, 2011

File: 06-Kin-5
PM 9.0/16.5
EA 0P180

From: ALBERT LEE, Chief
District 6 - Office of Traffic Operations

Subject: Safety Screening for 2R Project

This is in response to your request for safety screening for the proposed 2R project on Interstate 5 in Kings County. The project propose to cold plane and replace the existing 0.35ft pavement on the #2 lane with HMA, replace failed panels on the #2 lane, and cap the entire width of pavement with rubberized AC from 3.1 miles south of Utica Ave to I-5/SR41 Junction.

Existing Conditions:

This segment of I-5 is a rural four-lane divided freeway with 12-foot lanes, 5-foot inside shoulders and 10-foot outside shoulders. The terrain in the project limits consist of mostly tangent alignment, level grade, and good sight distance. The posted speed limit is 70 mph. The current (2010) ADT within the project limits is 30,000.

The accident rate for the project segments for the most recent three-year study period (between 04-01-2007 and 03-31-2010) are indicated in the Table B in number of accidents per million-vehicle-miles (MVM) are as shown below:

Freeway Segment	Actual (MVM)			Statewide Average (MVM)		
	Fatal	F+I	Total	Fatal	F+I	Total
Kin 5 Northbound (PM 9.0/16.5)	0.016	0.14	0.39	0.010	0.16	0.45
Kin 5 Southbound (PM 9.0/16.5)	0.000	0.10	0.16	0.010	0.16	0.45

Safety Screen 1.0: Fatal plus Injury (F + I) Accident Rate:

Safety Screen 1.1.

- Kin 5 Northbound (PM 9.0/16.5), the actual F +I accident rate is 0.14 acc/mvm, which is below the statewide average F +I rate of 0.16 acc/mvm.

  >>>>> passes Safety Screen 1.1

- Kin 5 Southbound (PM 9.0/16.5), the actual F +I accident rate is 0.10 acc/mvm, which is below the statewide average F +I rate of 0.16 acc/mvm.

  >>>>> passes Safety Screen 1.1

Safety Screen 1.2.

Not applicable for expressways with four lanes or more and freeways.

Safety Screen 2.0: Highway Width F + I screen:

Not applicable for expressways and freeways

Safety Screen 3.0: Safety Analysis

Safety Screen 3.1.

An analysis of the accident history for the three-year period between 4/1/2007 and 3/31/2010 indicate a total of the total of 67 accidents that occurred within project limits.

- Kin 5 Northbound (PM 9.0/16.5), 48 accidents (2 F, 15 I, 31 PDO). The first fatal accident occurred at PM 9.36. Two vehicles sideswiped each other and overturned beyond the left shoulder. "Other violation" was the primary collision factor. It happened during clear, dark, and dry surface conditions. The second fatal accident occurred at PM 13.59. The vehicle collided with cut slope/embankment and overturned. "Improper Turn" was the primary collision factor. It happened during clear, daylight, and dry surface conditions:

Primary Collision Factor	Type of Collision						
	Side Swipe	Rear End	Broadside	Hit Object	Overturn	Other	Not Stated
Influence of Alcohol					1		
Improper Turn	2	1	1	11	10		1
Speeding	1	6			1		
Other Violation	3	1		1	2		
Other Than Driver				4	1	1	
Total	6	8	1	16	15	1	1

s
truck from the 16 hit object accidents are the following:

Object Struck	Hit Object
Dike or Curb	1
Cut Slope or Embankment	2
Over Embankment	1
Fence	5
Other Object on the Road	2
Unknown Object Struck	1
No Object Involved	2
Other Vehicle (V1 through V9)	2
Total	16

- Kin 5 Southbound (PM 9.0/16.5), 19 accidents (0 F, 12 I, 7 PDO):

Primary Collision Factor	Type of Collision				
	Side Swipe	Broadside	Hit Object	Overturn	Other
Influence of Alcohol	1				
Improper Turn	1	1	2	10	
Speeding			1		
Other Violation			2		1
Total	2	1	5	10	1

The objects struck from the 5 hit object accidents are the following:

Object Struck	Hit Object
Dike or Curb	1
Fence	1
Other Object on the Road	1
Other Vehicle (V1 through V9)	2
Total	5

The accident analysis does not indicate that there are any identifiable collision patterns that are correctable, or any other issues requiring general geometric improvements.

>>>>> passes Safety Screen 3.1

Safety Screen 3.2.

Accident data indicated that collisions are spread throughout the project limit; spot locations for roadway improvements could not be identified.

>>>>> passes Safety Screen 3.2

Safety Screen 4.0: Pedestrian and Bicycle Needs in or near Communities

Not applicable, pedestrians and bicycles are prohibited on this segment of I-5.

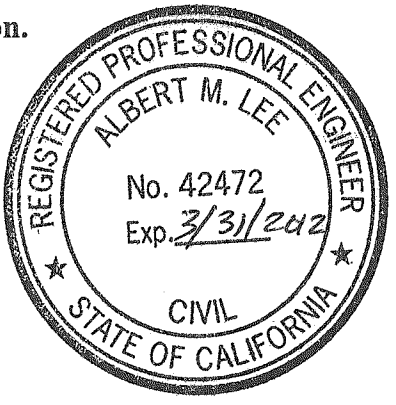
In summary, this project passes the safety screens in accordance with procedures developed in conjunction with the updated DIB 79-03. If you have any questions, please call Jason Miao at 445-5999.

ATTACHMENT E – 2R Certification

06-Kin-5
PM 9.0/16.5
EA 0P180

2R PROJECT CERTIFICATION [1, 2]

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



Chief, District Traffic Operations Branch — Date: 9/16/2011

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.

Kim E. Anderson
Deputy District Director for Design — Date: 9/21/11

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

Design Coordinator — Date: 10/6/11

I concur that this project should be scoped and designed as a 2R Project per 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.

District Deputy for Maintenance and Operations [3] — Date: 10-10-11

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.
3. District organizations with separate Deputies for Maintenance and Operations need the signatures of both individuals.

ATTACHMENT F – Environmental Document

CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM

06-KIN-5	9.0/16.5	06-0P180	EFIS: 0612000086
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	Federal-Aid Project No. (Local project)/ Proj. No.

PROJECT DESCRIPTION:

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

Enter project description in this box. Use Continuation Sheet, if necessary

Cold plane and replace the existing 0.35 foot layer on the #2 lane with Hot Mix Asphalt (HMA) (Type A) and fabric, remove and replace failed panels in the #2 lanes with HMA (Type A) then repave and cap the entire width of pavement with Rubberized Asphalt Concrete (RAC) (Type G).

CEQA COMPLIANCE *(for State Projects only)*

Based on an examination of this proposal, supporting information, and the following statements (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])

Kelly Hobbs	Chris Gardner
Print Name: Environmental Branch Chief	Print Name: Project Manager/DLA Engineer
Kelly Hobbs 9/16/2011	Chris Gardner 9/16/11
Signature Date	Signature Date

NEPA COMPLIANCE

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

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b) (http://www.fhwa.dot.gov/hep/23cfr771.htm - sec.771.117).

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to 42 USC 7506(c) and 40 CFR 93.

CALTRANS NEPA DETERMINATION (Check one)

☒ **Section 6004:** 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 (MOU) dated June 7, 2010, 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)(1)
- ☐ Activity ___ listed in the MOU between FHWA and the State

☐ **Section 6005:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

Kelly Hobbs	Chris Gardner
Print Name: Environmental Branch Chief	Print Name: Project Manager/DLA Engineer
Kelly Hobbs 9/16/2011	Chris Gardner 9/16/11
Signature Date	Signature Date

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). Revised June 7, 2010

ATTACHMENT G – Right of Way Data Sheet

State of California Business, Transportation and Housing Agency

Memorandum

To: CHRIS GARDNER

Date: 10/21/2011

File: CD 06 EA 0P180K Alt REV1
Co KIN RTE 5

Attn

DESCRIPTION:
OVERLAY 2R

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 10/20/2011

The following assumptions and limiting conditions were identified:

Appraisal

Utility
According to the Right of Way Data Sheet Request Form and an e-mail from Rod Cruz, Project Engineer, no utility involvement is required. No manholes or valve adjustments are required either. He also stated there are a couple of drainage inlets along the outside shoulders in both directions. Rod will also do a permit search now. Originally, the request indicated no potholing was required. Per e-mail dated 10/20/11 from David Sherman, now need to inlcude potholing.

Right of Way Lead Time will require a minimum of 1 months after we receive Certified Appraisal Maps and/or Utility Conflict Plans, obtained necessary environmental clearance and applicable freeway agreements have been approved.

NICHOLAS G DUMAS
Assistant Region Division Chief, Right of Way
(559)445-6195

EA: 06-0P180K CO/RTE/PM-PM (Rte 1 and Rte 2) : KIN/5/9-16.5 & //-

ALT: REV1

Request Date: 10/20/2011

Revised Date:

Right Of Way Cost Estimate

	Current Year 2012	Contingency Rate	Right of Way Escalation Rate	Escalated Year 2016
Acquisition:	$0	25%	5%	$0
Mitigation:	$0	25%	5%	$0
State Share of Utilities:	$3,750	25%	5%	$4,558
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: If RW Cost Est fields are blank, Costs = $0	$3,750			$4,558

Estimated Construction Contract Work (CCW):

R/W LEAD TIME/Mo. 1

Cost Break Down

Pot Hole	3,000
Mitigation	
Land	
Bank	
Permit Fee	

RR Involvement

Railroad Facilities or Right of Way Affected?	
Const/Maint Agreement:	
Service Contract:	
Right of Entry:	
Clauses:	
Estimated Lead-time	

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:

Utilities

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

Misc R/W Work

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

EA: 06-0P180K ALT: REV1

Parcel Area

Total R/W Required:
Total Excess Area:

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

General Description of Utility Involvement:

The project consists of an overlay 2R in Kings County on Interstate 5 near Kettleman City from 3.1 miles South of Utica Avenue to the junction of State Route 41.

Is there a significant effect on assessed valuation: No

Were any previously unidentified sites with hazardous waste or material found: No

Are RAP displacements required: No

# of single family: # of muliti-family: # of business/nonprofit: # of farms:

Sufficient replacement housing will be available without last resort housing:

Are material borrow or disposal sites required: No

Are there potential relinquishments or abandonments: No

Are there any existing or potential airspace sites: No

Are environmental mitigation parcels required: No

Data for evaluation provided by:

Estimator:

Railroad Liaison Agent:

Utiltiy Relocation Coordinator: Stephanie Rendon-Fuentes 10/20/2011

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 10/21/2011

BY: h yang

NICHOLAS G DUMAS
Assistant Region Division Chief, Right of Way

ATTACHMENT H – Pavement Condition Survey Inventory

Collection: 05/28/2009
Printed: 08/31/2011

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 6, KIN, Rte 005, PM 9 - 16.5

District 6
County KIN
Route 005
Begin PM 8.000

District 6 County KIN Route 005

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
8.000 - 9.000	1.000	4.000	MLD	31	1
9.000 - 10.000	1.000	4.000	MLD	31	1
10.000 - 11.000	1.000	4.000	MLD	31	1
11.000 - 12.000	1.000	4.000	MLD	31	1
12.000 - 13.000	1.000	4.000	MLD	32	1
13.000 - 14.000	1.000	4.000	MLD	32	1

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
8.000 - 9.000															
L1	F-DG	0	0									5 52	33		MISC. UNSEALED CRACKS
L2	F-DG	0	39									5 57	7		HIGH ABC
R1	F-DG	0	0									5 55	99		NO DISTRESS OBSERVED
R2	F-DG	0	0									5 88	33		MISC. UNSEALED CRACKS
9.000 - 10.000															
L1	F-DG	0	0									5 64	33		MISC. UNSEALED CRACKS
L2	F-DG	0	14									6 92	9		MOD ABC
R1	F-DG	0	0									5 65	99		NO DISTRESS OBSERVED
R2	F-DG	0	0									14 123	98		GOOD CONDITION
10.000 - 11.000															
L1	F-DG	0	0									5 74	33		MISC. UNSEALED CRACKS
L2	F-DG	0	0							17		7 93	33		MISC. UNSEALED CRACKS
R1	F-DG	0	0									5 71	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									16 129	33		MISC. UNSEALED CRACKS
11.000 - 12.000															
L1	F-DG	21	0									5 77	32		ALL. A, NO B, OPEN CRKS
L2	F-DG	0	6									5 88	31		ALL. B, OPEN CRKS
R1	F-DG	0	0									5 68	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									11 112	33		MISC. UNSEALED CRACKS
12.000 - 13.000															
L1	F-DG	21	0									5 78	32		ALL. A, NO B, OPEN CRKS
L2	F-DG	0	6									10 106	31		ALL. B, OPEN CRKS
R1	F-DG	3	0									N/A	32		ALL. A, NO B, OPEN CRKS
R2	F-DG	0	0									7 94	33		MISC. UNSEALED CRACKS
13.000 - 14.000															
L1	F-DG	0	0									5 74	33		MISC. UNSEALED CRACKS
L2	F-DG	0	0									5 73	33		MISC. UNSEALED CRACKS
R1	F-DG	0	0									5 67	33		MISC. UNSEALED CRACKS
R2	F-DG	6	0									8 98	32		ALL. A, NO B, OPEN CRKS

*Surface type of 'EB' is Enhanced Binder.

Collection Printed: 05/28/2009 08/31/2011

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 6, KIN, Rte 005, PM 9 - 16.5

District 6 County KIN Route 005

District	6
County	KIN
Route	005
Begin PM	14.000

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI	Priority	Skid	Defect
14.000 - 14.917					**0.917**	**3.668**	**MLD**	**32**	**1**						
L1	F-DG	0	0									5 82	33		MISC. UNSEALED CRACKS
L2	F-DG	0	0									7 93	33		MISC. UNSEALED CRACKS
R1	F-DG	0	0									5 77	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									8 99	33		MISC. UNSEALED CRACKS
14.917 - 14.926					**0.009**	**0.036**	**MLD**	**32**	**1**						
L1	B											N/A	0		N/A - Bridge
L2	B											N/A	0		N/A - Bridge
R1	F-DG	0	0									N/A	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									N/A	33		MISC. UNSEALED CRACKS
14.926 - 14.953					**0.027**	**0.108**	**MLD**	**32**	**1**						
L1	B											N/A	0		N/A - Bridge
L2	B											N/A	0		N/A - Bridge
R1	B											6 125	0		N/A - Bridge
R2	B											36 204	0		N/A - Bridge
14.953 - 14.962					**0.009**	**0.036**	**MLD**	**32**	**1**						
L1	F-DG	0	0									N/A	33		MISC. UNSEALED CRACKS
L2	F-DG	0	0									N/A	33		MISC. UNSEALED CRACKS
R1	B											N/A	0		N/A - Bridge
R2	B											N/A	0		N/A - Bridge
14.962 - 15.000					**0.038**	**0.152**	**MLD**	**32**	**1**						
L1	F-DG	0	0									5 73	33		MISC. UNSEALED CRACKS
L2	F-DG	0	0									13 117	33		MISC. UNSEALED CRACKS
R1	F-DG	0	0									N/A	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									N/A	33		MISC. UNSEALED CRACKS
15.000 - 16.000					**1.000**	**4.000**	**MLD**	**32**	**1**						
L1	F-DG	0	0									5 70	33		MISC. UNSEALED CRACKS
L2	F-DG	0	0									8 100	33		MISC. UNSEALED CRACKS
R1	F-DG	0	0									5 64	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									5 86	33		MISC. UNSEALED CRACKS

*Surface type of 'EB' is Enhanced Binder.

Collection Printed: 05/28/2009 08/31/2011

Caltrans Maintenance Program
2008 Pavement Condition Survey Inventory
Caltrans Drive Order

District 6
County KIN
Route 005
Begin PM 16.000

District 6, KIN, Rte 005, PM 9 - 16.5

District 6 County KIN Route 005

Begin PM - End PM		Length	LaneMi. (Est.)	Type	AADT (,000)	MSL							
Lane	Surface Type	Alligator Cracking A %	B %	C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	3rd %	Corner %	Faulting	Patching Area %	Poor Cond.?	Ride, IRI	Priority	Skid	Defect
16.000 - 16.157			**0.157**		**0.628**	**MLD**	**32**	**1**							
L1	F-DG	6	0									5 70	32		ALL. A, NO B, OPEN CRKS
L2	F-DG	4	0									5 84	32		ALL. A, NO B, OPEN CRKS
R1	F-DG	0	0									5 77	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									5 82	33		MISC. UNSEALED CRACKS
16.157 - 16.565			**0.408**		**1.632**	**MLD**	**32**	**1**							
L1	F-DG	6	0									5 85	32		ALL. A, NO B, OPEN CRKS
L2	F-DG	4	0									12 114	32		ALL. A, NO B, OPEN CRKS
R1	F-DG	0	0									5 82	33		MISC. UNSEALED CRACKS
R2	F-DG	0	0									15 126	33		MISC. UNSEALED CRACKS

*Surface type of 'EB' is Enhanced Binder.

ATTACHMENT I – Constructability Review Roster

CENTRAL REGION
CONSTRUCTIBILITY REVIEW MEETING
ATTENDANCE FORM

?-RTE-PM Kin-05-9.0-16.5 REVIEW TYPE PID DATE 09/27/2011

DISTRICT-EA 06-0P180K SENIOR Jun Xu

SIGNATURE	REVIEWER DEPARTMENT	INVITEE NAME	Returned Checklist	Had Comments	No Comments	Design Responded
[signature]	DESIGN	ROD CRUZ	☐	☐	☐	☐
Sukhjinder Singh	Design	SUKHJINDER SINGH	☐	☐	☐	☐
Chris Gardner	PPM	Chris Gardner	☐	☐	☐	☐
Bill Moses	Maint	[signature]	☐	☐	☐	☐
Ron Jones	HQ Pavement	[signature]	☐	☐	☐	☐
Powell Yang	Hydraulics	Powell Yang	☐	☐	☐	☐
Gurvinderjit Sakhs	ELECT. DESIGN	[signature]	☐	☐	☐	☐
[signature]	STORM WATER	EMMANUEL EVALLE	☐	☐	☐	☐
[signature]	CONSTRUCTION	JOHN BORQUEZ	☐	☐	☐	☐
[signature]	M/Ts Eng.	John Blase	☐	☐	☐	☐
ASh -	Materials Engr	Ahmad Shokrpour	☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐
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			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐

ATTACHMENT J – 6-Page Cost Estimate

PROJECT STUDY REPORT COST ESTIMATE

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

PROJECT DESCRIPTION:

Limits: In Kings County Near Kettlemen City From 3.1 miles south of Utica Ave Overcrossing to Rte 5/41 separation

Proposed Improvement: (Scope of Work) The scope of work will include cold planing and replacing the existing 0.35 foot layer of AC on the #2 lane with DGHMA (Type A), remove and replace failed panels in the #2 lane with 1.08' full depth DGHMA (Type A) and then cap the entire width including shoulder with 0.20'/0.20' RHMA (Type G)/DGHMA (Type A).

Alternative: 1

SUMMARY OF PROJECT COST ESTIMATE

I. **ROADWAY ITEMS**	**Sections 1 - 5**	$ 10,347,000
II. **ROADSIDE ITEMS**	**Sections 6 - 7**	$ 0
III. **ROADWAY ADDITIONS**	**Sections 8 - 10**	$ 3,236,000
TOTAL ROADWAY	**Total of Sections 1 - 10 shown above**	$ 13,583,000
TOTAL STRUCTURES		$ 0
SUBTOTAL CONSTRUCTION COSTS		$ 13,583,000
TOTAL RIGHT OF WAY ITEMS (Not Escalated)		$ 3,750
TOTAL PROJECT CAPITAL OUTLAY COSTS		$ 13,587,000

Reviewed by District Program Manager: _____ (Date)

Approved by Project Manager: Chi Gardner CHRIS GARDNER 10/20/11 (Date)

Phone Number: 559-243-8060

Form revised 8/21/07

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

I. ROADWAY ITEMS

Section 1 - Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation		CY	$0	$0	
Imported Borrow		CY	$0	$0	
Clearing & Grubbing		LS	$0	$0	
Develop Water Supply		LS	$0	$0	
Remove Concrete Pavemen	3,802	CY	$125	$475,200	
Imported Material (shoulder	8,613	Ton	$20	$172,260	
				$0	
			Subtotal Earthwork:		$647,460

Section 2 - Pavement Structural Section*					
Hot Mix Asphalt Concrete	73,713	Tons	$75	$5,528,477	
RHMA (Type G)	43,243	Tons	$80	$3,459,456	
Aggregate Base		CY	$0	$0	
Treated Permeable Base	0	CY	$0	$0	
Aggregate Subbase	0	CY	$0	$0	
Cold Plane AC Pavmt	105,600	FT^2	$1.5	$158,400	
				$0	
				$0	
				$0	
			Subtotal Structural Section:		$9,146,333

Section 3 - Drainage					
CMP		FT		$0	
Large Drainage Facilities	0	LS	$0	$0	
Storm Drains	0		$0	$0	
Adjust DI	10	EA	$1,300	$13,000	
Project Drainage	0		$0	$0	
(X-Drains, overside, etc.)					
Dike	7,920	FT	$1.3	$10,296	
RCP	0	FT	$0	$0	
			Subtotal Drainage:		$23,296

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

PROJECT STUDY REPORT COST ESTIMATE

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

Section 4 - Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Remove Exist Fence	0	FT	$0	$0	
Fence (Type BW)	0	FT	$0	$0	
Barriers and Guardrails	1	LS	$80,000	$80,000	
	0		$0	$0	
Water Pollution Control	1	LS	$72,200	$72,200	
Hazardous Waste Investigat and/or Mitigation Work	0		$0	$0	
Environmental Compliance	0	LS	$0	$0	
Resident Engineer Office	0	LS	$0	$0	
Rumble Strip	1,600	Sta	$15.5	$24,800	
				$0	
			Subtotal Specialty Items:		$177,000

Note: ** Environmental Mitigation item is included in the Right of Way Capital Cost.

Section 5 - Traffic Items					
Lighting	0	LS	$0	$0	
Traffic Delineation	1	LS	$60,000	$60,000	
Traffic Signals	0	LS	$0	$0	
Overhead Sign Structures	0	LS	$0	$0	
Roadside Signs	0	LS	$0	$0	
Traffic Control Systems	0	LS	$0	$0	
Traffic Management Plan	1	LS	$187,000	$187,000	
Construction Area Signs	1	LS	$11,000	$11,000	
Portable CMS	1	LS	$0	$0	
Maintain Traffic	0	LS	$0	$0	
Staging	0	LS	$0	$0	
Electrolier	8	EA	$6,000	$48,000	
Traffic Count Station	6	EA	3,350	$20,100	
Traffic Monitoring Stations	1	LS	27,000	$27,000	
			Subtotal Traffic Items:		$353,100

TOTAL ROADWAY ITEMS Sections 1 thru 5 $10,347,000

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

II. ROADSIDE ITEMS

Section 6 Planting and Irriga	Quantity	Unit	Unit Price	Item Cost	Section Cost
Highway Planting	0		$0	$0	
Replacement Planting	0		$0	$0	
Irrigation Modification	0		$0	$0	
Relocate Existing Irrigation	0		$0	$0	
Facilities	0		$0	$0	
Irrigation Crossovers	0		$0	$0	
	0		$0	$0	
	0	LS	$0	$0	
	0		$0	$0	
	0	LS	$0	$0	
				$0	

Subtotal Planting and Irrigation Section: $0

Section 7: Roadside Management and Safety Section					
Vegetation Control Treatmer	0	LS	$0	$0	
Gore Area Pavement	0	LS	$0	$0	
Pavement beyond the gore a	0	LS	$0	$0	
	0	LS	$0	$0	
Erosion Control	9	ACRES	$0	$0	
Slope Protection	0	LS	$0	$0	
Side Slopes/Embankment Sl	0	LS	$0	$0	
Maintenance Vehicle Pullout	0	LS	$0	$0	
Off-freeway Access (gates, stairways, etc.)	0	LS	$0	$0	
Roadside Facilities (Vista Points, Transit, Park & Ride)	0	LS	$0	$0	
Relocating roadside facilities/features	0	LS	$0	$0	
	0	LS	$0	$0	
	0	LS	$0	$0	

Subtotal Roadside Management and Safety Section: $0

TOTAL ROADSIDE ITEMS Sections 6 thru 7 $0

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

III. ROADWAY ADDITIONS

Section 8 - Minor Items

				Item Cost	Section Cost
$10,347,000 (Subtotal Sections 1 thru 7)	x	0.05 (5 to 10%)	=	$518,000	

Minor Items: $518,000

Section 9 - Roadway Mobilization

$10,865,000 (Subtotal Sections 1 thru 8)	x	0.05 (10%)	=	$544,000

Roadway Mobilization: $544,000

Section 10 - Supplemental Work & Contingencies

Supplemental Work

$10,865,000 (Subtotal Sections 1 thru 8)	x	0.05 (5 to 10%)	=	$544,000

Contingencies

$10,865,000 (Subtotal Sections 1 thru 8)	x	0.15 (**%)	=	$1,630,000

Supplemental Work & Contingencies: $2,174,000

TOTAL ROADWAY ADDITIONS Sections 8 thru 10: $3,236,000

TOTAL ROADWAY: $13,583,000
(Subtotal Sections 1 thru 10)

Estimate Prepared by:	Sukhjinder Singh (Print or Type Name)	Phone: 559-243-3822	10/20/11 (Date)
Estimate Checked by:	Rodrigo Cruz (Print or Type Name)	Phone: 559-243-3594	10/20/11 (Date)

****Use appropriate percentage per PDPM, Part 3 Chapter 20.**

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

II. STRUCTURE ITEMS

	STRUCTURE No. 1		
Bridge Name			
Structure Type			
Width (out to out) - (ft)	N/A		
Span Length - (ft)	N/A		
Total Area - ft^2	N/A		
Footing Type (pile/spread)			
Cost Per ft^2 (incl. 10% mobilization & 25% contingencies	$0		
Total Cost for Structure	$0		
Other	$0		

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS $0

Railroad Related Costs (Not incl. in R/W Est) $0

TOTAL STRUCTURES ITEMS $0

COMMENTS:

Estimate Prepared by: _____ Phone: _____ 0/0/00
(Print or Type Name) (Date)

(If appropriate, attach additional pages as backup)

Dist-Co-Rte: 06-Kin-05
PM: PM 9.0/16.5
EA: 06-0P180K
Program Code: 20.10.201.122

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	Escalation Rates		Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	$0	0.0%	-	$0
Utility Relocation (State share)	$3,750	5.0%	-	$3,938
Clearance/Demolition	$0	0.0%	-	$0
RAP	$0	0.0%	-	$0
Title and Escrow Fees	$0	0.0%	-	$0
Construction Contract Work	$0	0.0%	-	$0
TOTAL RIGHT OF WAY**	$3,750			$3,938 ESCALLATED VALUE*

Date to which Values are Escalated: FY 12/13

* Escalated to assumed year of potholing.
** Current total value for use on Sheet 1

Estimate Prepared by: Houa Yang (Print or Type Name) Phone: _____ 10/21/11 (Date)

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

ATTACHMENT K – Storm Water Data Report

Dist-County-Route: 06-Kin-05
Post Mile Limits: 9.0/16.5
Project Type: Pavement Rehabilitation (2R)
Project ID (or EA): 0612000021 (EA 06-0P180K)
Program Identification: 20.10.201.120
Phase: ☒ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Central Valley RWQCB – Region 5F

1.	Is the project required to consider incorporating Treatment BMPs?	Yes ☐	No ☒
2.	Does the project disturb 5 or more acres of soil?	Yes ☐	No ☒
3.	Does the project disturb more than 1 acre of soil and not qualify for the Rainfall Erosivity Waiver?	Yes ☐	No ☒
4.	Does the project potentially create permanent water quality impacts?	Yes ☐	No ☒
5.	Does the project require a notification of ADL reuse	Yes ☐	No ☒

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

Estimate Construction Start Date: 07/01/2015 Construction Completion Date: 07/01/2017

Separate Dewatering Permit (if yes, permit number) Yes ☐ Permit #_____ No ☒

Erosivity Waiver Yes ☐ Date: _____ No ☒

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

10-10-11

Rodrigo M. Cruz, Registered Project Engineert — Date

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

10-11-11

Marissa Nishikawa, District/Regional SW Coordinator or Designee — Date

[Stamp Required for PS&E only)

ATTACHMENT L – TMP Data Sheet

DISTRICT 6 - TRANSPORTATION MANAGEMENT PLAN

DATA SHEET

(TMP Elements and Costs)

CO/RTE/PM	KIN	5	PM	9.0/16.5	PROJ. NO.	0P180K
PROJECT NAME	Kings 5-2R Rehab					
PROJECT LIMIT	On Interstate 5 in Kings County near Kettlemen City from 3.1 miles south of Utica Ave OC to Rte 5/41 Separation					
PROJECT DESCRIPTION	Cold plane and replace with HMA and fabric, remove and replace failed panels with HMA and repave and cap with RHMA.					

A) ***The project includes the following:***
(Check all that applicable type of facility closures.)

- [x] Highway or Freeway Lanes
- [x] Highway or Freeway Shoulders
- [ ] Freeway Connectors
- [x] Freeway Off-ramps
- [x] Freeway On-ramps
- [ ] Local Streets

B) ***Are there any construction strategies that can restore existing number of lanes?***

[x] No [ ] Yes *(Check all applicable strategies.)*

- [ ] Temporary Roadway Widening
  Structure Involvement? [ ] Yes [x] No (If yes, notify Project Manager)
- [ ] Lane Restriping (Temporary narrow lane widths)
- [ ] Roadway Realignment (Detour around work area)
- [ ] Median and/or Right Shoulder Utilization
- [ ] Use of HOV lane as Temporary Mixed Flow Lane
- [ ] Staging Alternatives (Explain Below)

C) ***Calculated Delay***
(To be performed if construction strategies in Item B do not mitigate congestion resulting from Item A or on all projects along Interstate 5 and Route 99)

1. Estimated Maximum Individual delay _____ minutes
2. Existing or Acceptable Individual Vehicle Delay _____ minutes
3. Estimated Individual Vehicle Delay Requiring Mitigation _____ minutes
4. Estimate Delay Cost (Most Applicable)
   - [ ] Extended Weekend Closure
   - [ ] Weekly (7 days)
5. Estimated Duration of Project Related Delays _____ # of Days
6. Cost of Construction Related delays _____

TMP Estimates based on X-Number of Working Days
requiring Lane/Shoulder/Ramp/Freeway/Highway Closures: 146 Working Days

TMP DATASHEET

Date: September 22, 2011
Design Senior: Jun Xu
Branch: Q *Office of Design:*

Cnty/Rte: KIN 5
PM: 9.0/16.5
Project No: 0P180K

D) ***Preliminary TMP Elements and cost:*** (Identify all elements and estimated costs that will be used to mitigate congestion resulting from the proposed construction activities.)

1. Public Information - Bees # **066063**

☐	Brochures & Mailers	
☑	Press Release/Media Alerts	$7,000
☐	Paid Advertisements	
☑	Public Information Center/Kiosks	$0
☐	Telephone Hotline	
☐	Planned Lane Closure Website	
☐	Project Website	
☐	Pubic Meetings	
☑	Freight Travel Information	$0

2. Motorist Information Strategies

☑	Traffic Radio Announcements	$0
☐	Fixed CMS	
☑	Portable CMS BEES **128650**	$55,000
☐	Temporary Motorist Information Signs	
☐	Ground Mounted Signs (Detour)	
☐	Dynamic Speed Message Sign	
☐	Highway Advisory Radio	
☑	CT Hwy Infom. Network (CHIN)	$0

3. Incident Management

☑	Transportation Management Center	$0
☐	Traffic Management Team (TMT)	
☐	Intelligent Transportation Systems	
☐	Traff. Surveillance (Loop & CCTV)	
☐	Helicopter Surveillance	
☐	Tow/Freeway	
☑	COZEEP BEES **066062**	$125,000

4. Construction Strategies (In Addition to Elements Identified on Item B)

☑	Lane Requirement Chart	$0
☐	Construction Staging	
☐	Traffic Handling Plans	
☐	Full Facility Closures	
☐	Local Road Closures	
☐	Lane Modifications	
☐	One-Way Reversing Operation	

4. Construction Strategies (In Addition to Elements Identified on Item B)

☐	Two-way Traffic On One Side	
☐	Reversible Lanes	
☑	Ramp/Connector Closure	$0
☐	Night Work	
☐	Extended Weekend Work	
☐	Ped/Bicycle Access Improvements	
☐	Maintain Business Access	
☑	A + B Bidding	$0
☐	Innovative Const. Techniques	
☐	Coordination w/ Adj. Const. Site	
☐	Speed Limit Reduction	
☐	Traffic Screens	

5. Demand Management

☐	HOV Lane/Ramps	
☐	Variable Work Hours	
☐	Telecommuting	
☐	Truck/Heavy Vehicle Restrictions	
☐	Rideshare Promotions	
☐	Ramp Metering	
☐	Transit Incentives	
☐	Shuttle Services	
☐	Ridesharing/Carpooling Incentives	
☐	Park & Ride Promotion	

6. Alternative Route Strategies

☐	Off-site Detours/Use of Alt. Rtes	
☐	Signal Timing/Coord. Improvements	
☐	Temporary Traffic Signals	
☐	Signal Retiming	
☐	Street/Intersection Improvements	
☐	Turn Restrictions	
☐	Parking Restrictions	

7. Other Considerations

☐	Application of New Technologies	
☐	Other	

TOTAL ESTIMATED COST OF TMP **$187,000**

PROJECT NOTES:

1. Current dollar values used. Inflation was not factored into the estimate.
2. There are no noise restrictions / moratoriums for night work.
3. Traffic Control/Maintain Traffic costs was not provided. Please consult with the OE or construction office for this estimate.
4. Portable CMS specified for this project by this estimate is designed for congestion relief as outlined by DD-60. Portable CMS required for other purposes should be included under other specifications.
5. COZEEP specified for this project by this estimate is designated for congestion relief as outlined by DD-60. COZEEP required for other purposes should be included under other specifications.
6. The TMP is a living document that is subject to change if material changes take place in the final version of the project phase or if changes are required during construction to respond to excessive levels of congestion.

PREPARED BY:	OFFICE OF TRAFFIC MANAGEMENT	DATE:
Florencia Allenger		September 22, 2011

ATTACHMENT M – Risk Management Plan

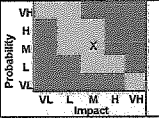
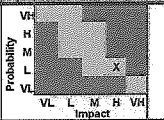
Dist - E.A 06-0P180K **Project Name**

Co-Rte-PM Kin-5-9.0/16.5

Date 9/29/2011

Project Mngr Chris Gardner **Telephone Number** (559) 243-8060

PROJECT RISK MANAGEMENT PLAN

Priority	Identification						Qualitative Analysis				OPTIONAL Quantitative Analysis			Risk Response Plan		Monitoring and Control	
	Status	ID #	Date Identified Project Phase	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)
	Active	1	9/29/2011 PA&ED	Design	Possibility of Potholing	Utility Discovered / Variance to High/Low Policy not granted	Schedule Cost	Moderate	Moderate		50%			Avoidance	Potholing required	Design	
	Active	2	9/29/2011 PA&ED	Design	Resurfacing Strategy changes	Material Recommendation changes in PS&E	Cost	Low	High		30%				Revaluate strategy during PS&E to contain cost