ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
Christy Ave UC Roadway Rehab & Lane Replacement (EA 07-30960)

Resolution SHOPP-P-1819-04B
(will be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☒ State Highway Operation and Protection Program
- ☐ Trade Corridor Enhancement Program

2. PARTIES AND DATE

2.1 This Project Baseline Agreement (Agreement) for the *Christy Ave UC Roadway Rehab & Lane Replacement (EA 07-30960)*, effective on, OCTOBER 17, 2018 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Caltrans*, and the Implementing Agency, *Caltrans*, sometimes collectively referred to as the "Parties".

3. RECITAL

3.2 Whereas at its March 22, 2018 meeting the Commission approved the State Highway Operation and Protection Program, and included in this program of projects the *Christy Ave UC Roadway Rehab & Lane Replacement (EA 07-30960)*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.

3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.

4.2 To adhere, as applicable, to the provisions of the Commission:

- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☒ Resolution G-18-13, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated March 22, 2018
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated

4.3 All signatories agree to adhere to the Commission's State Highway Operation and Protection Program, Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.

4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.

4.5 Caltrans agrees to secure funds for any additional costs of the project.

4.6 Caltrans agrees to report on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.

4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.

4.8 Caltrans agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost
See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions

Attachments:

Exhibit A: Project Programming Request Form
Exhibit B: Project Report

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

Christy Ave. UC Rdwy Rehab & Lane Replacement EA 07-30960

Resolution SHOPP-P-1819-04B

Sujaya Kalainesan — 08/02/2018
Date

Project Manager

Project Applicant

Derek Higa — 8/3/18
Date

Interim SB 1 Program Manager

Implementing Agency

FOR Shirley Choate, Interim — 8/3/2018
Date

District Director

California Department of Transportation

For Laurie Berman — 9/19/18
Date

Director

California Department of Transportation

Susan Bransen — 10/26/18
Date

Executive Director

California Transportation Commission

Baseline agreement information was extracted from Caltransâ„¢ project data systems. Project description, funding and performance measures are from CTIPS. Project delivery milestones are from PRSM. All information is current and accurate.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

BASELINE AGREEMENT

Date:	08/03/18 09:21:27 AM

District	EA	Project ID	PPNO	Project Manager
07	30960	0714000299	4801	KALAINESAN, SUJAYA

County	Route	Begin Postmile	End Postmile	Implementing Agency	
LA	210	R 0.0	R 9.7	PA&ED	Caltrans
				PS&E	Caltrans
				Right of Way	Caltrans
				Construction	Caltrans

Project Nickname

Pavement Preservation

Location/Description

In the city of Los Angeles, from Route 5 to North Wheatland Avenue. Rehabilitate roadway.

Legislative Districts

Assembly:	39	Senate:	18	Congressional:	29

PERFORMANCE MEASURES

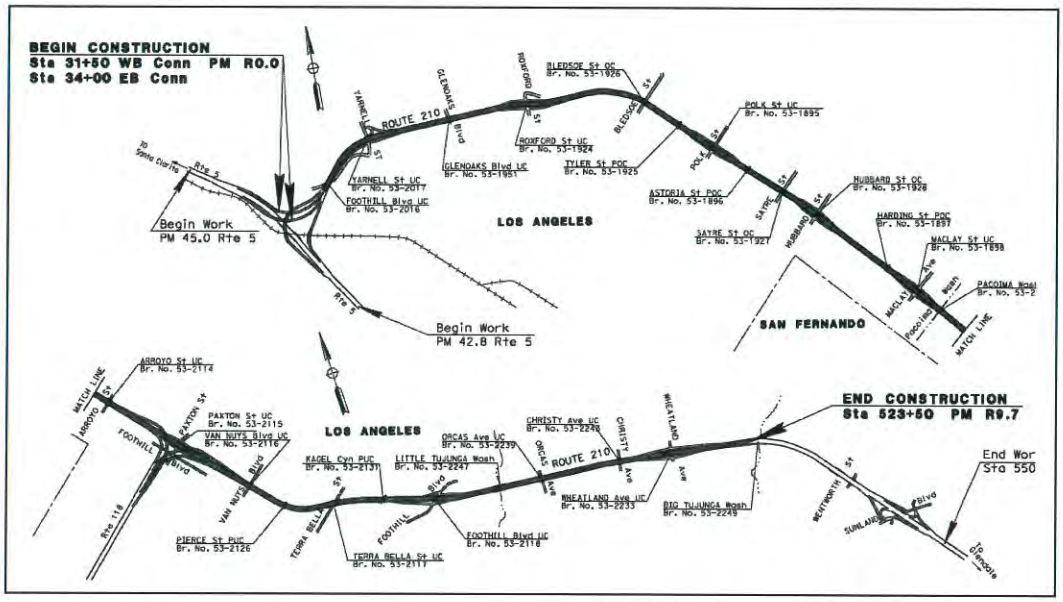
	Primary Asset	Good	Fair	Poor	New	Total	Units
Existing Condition	Pavement	13.3	49.7	1.3		64.3	Lane-miles
Programmed Condition	Pavement	64.3				64.3	Lane-miles

Project Milestone	Actual	Planned
Project Approval and Environmental Document Milestone	09/29/17	
Right of Way Certification Milestone		04/30/19
Ready to List for Advertisement Milestone		05/31/19
Begin Construction Milestone (Approve Contract)		02/25/20

FUNDING

Component	Fiscal Year	SHOPP					Total
PA&ED	17/18	750					750
PS&E	17/18	8,200					8,200
RW Support	17/18	500					500
Const Support	18/19	16,500					16,500
RW Capital	18/19	490					490
Const Capital	18/19	120,000					120,000
Total		146,440					146,440

Supplemental Project Scope Summary Report (Roadway Rehabilitation)



On Route **Interstate 210,**

From **Interstate 5 (PM R0.0)**

To **to Wheatland Ave Undercrossing (PM R9.7)**

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

***ANDREW P. NIERENBERG**, DEPUTY DISTRICT DIRECTOR, RIGHT OF WAY*

APPROVAL RECOMMENDED:

SUJAYA KALAINESAN, *PROJECT MANAGER* — DATE 09/26/2017

APPROVED BY:

JERREL KAM, *DEPUTY DISTRICT DIRECTOR, DESIGN* — DATE 9/29/17

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.

Quang Thai — 9/26/2017

REGISTERED CIVIL ENGINEER — *DATE*

1. INTRODUCTION

This Pavement Rehabilitation (2R) project proposes to replace the existing pavement along the outer two lanes on I-210 between PM R0.0 and PM R9.7 in Los Angeles County, with a pavement structure that should provide a minimum service life of 40 years. The 2R Certification is found in Attachment B. This project also proposes a pavement rehabilitation for the on/off-ramps, connectors and adjacent shoulders. In addition, this project recommends upgrading various highway appurtenances and facilities, including, Metal Beam Guardrail (MBGR), dikes, sign structures and panels, curb ramps, traffic loop detectors, and some other appurtenances within the project limits.

The purpose of this Supplemental Project Scope Summary Report is to update the scope of work, address the cost changes and schedule changes from the original Project Scope Summary Report (PSSR), approved on June 29, 2015 (See Attachments 1 & 2). The scope changes include increased use of Rapid Strength Concrete and additional electrical systems improvement. The project's schedule is updated and the cost increase is based on updated scope and estimates.

Project Limits	07-LA-210 PM R0.0/PM R9.7	
	Current Cost Estimate:	**Escalated Cost Estimate:**
Capital Outlay Support		$ 23.45 million
Capital Outlay Construction	$ 113.89 million	$ 120.00 million
Capital Outlay Right-of-Way	$ 0.324 million	$ 0.487 million
Funding Source	20.XX.201.122	
Funding Year	2018/2019	
Type of Facility	3 to 4 lanes freeway	
SHOPP Project Output	52 lane miles	
Environmental Determination or Document	Categorically Exempt/ Categorically Excluded	
Legal Description	In Los Angeles County In Los Angeles From Interstate 5 To Wheatland Avenue Undercrossing	
Project Development Category	5	

2. RECOMMENDATION

It is recommended to approve the project's updated scope of work, so that the project can proceed to the design phase.

3. BACKGROUND

No Change (See Attachment 2)

4. SCOPE UPDATE

The following are the scope changes to the project:

- The segment between R0.0 and R6.2, lanes #1, #2, and #3 will be replaced with Jointed Plain Concrete Pavement Rapid Strength Concrete (JPCP-RSC). This is due to the limited work area restricting the use of regular setting concrete.
- Based on results of the R-value test on the coring material of the existing sub-base, the structural section has been revised to Type 2 as shown on the Typical Cross Sections X-1 (Attachment 3).
- Upgrade traffic signals at Polk Street EB and WB ramps, Hubbard Street EB and WB ramps, Maclay Street EB and WB ramps, and Osborne/Foothill Blvd EB and WB ramps. This improvement upgrades the traffic signals to the current standards.
- Upgrade BSL lighting at Paxton On/Off ramps.
- Upgrade lighting systems to LEDs and tamper-resistant pull boxes.

5. COST ESTIMATE BREAKDOWN

The construction capital estimated for this project based on the PSSR dated 06/29/2015 is $104 Million. This supplemental PSSR has an updated cost estimate and estimates construction capital at $120 Million, which is an increase in cost by $16 Million from the previous estimate.

The three primary factors that led to the increase is construction capital are:

1. An increase in the quantity of rapid set concrete required for the pavement structural section to accommodate a change in structural section strategy (due to limited working area and restricted traffic closure work windows) resulted in an increase in cost by approximately $9 Million.
2. Additional drainage modifications were required due to reconstruction of the median, resulting in a cost increase by approximately $5 Million.
3. Additional traffic electrical systems were included to mitigate impacts to existing traffic electrical facilities, increasing the cost by approximately $2 Million

A detailed cost estimate and a cost breakdown comparison of items that increased or decreased in cost compared to the previous cost estimate (dated 06/29/2015) is presented in Attachment 5.

6. EXISTING FACILITY

Refer to Original PSSR (See Attachment 2).

7. NEED AND PURPOSE

A. Problem, Deficiencies, Justification

No Change (See Attachment 2)

B. Regional and System Planning

No Change (See Attachment 2)

C. Traffic

No Change (See Attachment 2)

D. Right of Way Data

No Change (See Attachment 2 and 4)

8. CONSIDERATIONS REQUIRING DISCUSSIONS

A. Hazardous Waste

Disposal sites for Treated Wood Waste will be determined during construction. Treated Wood Waste, which is considered a hazardous waste material will be removed and disposed of in approved facilities. All materials generated during construction and deemed hazardous shall be disposed of in conformance with Federal and State laws and regulations as well as county and municipal ordinances and regulations. (See Attachment 8)

B. Storm Water Compliance

A separate Supplemental Project Scope Summary Report (PSSR) is being prepared to address the Trash Total Maximum Daily Load (TMDL) requirements along the I-210, which is within the same project limits of PM R0.0 and R9.7 (EA25940). As a result, permanent treatment Best Management Practices (BMPs) will not be proposed for this project. (See Attachment 7).

C. Environmental Compliance

This pavement rehabilitation project is categorically exempt and categorically excluded. (See Attachment 6) The updated Environmental Document was approved 2/3/2017.

D. Value Analysis

A Value Analysis (VA) will be done during the PS&E phase, but the principles of VA have been applied in this Phase.

E. Resource Conservation

This project will salvage existing precast concrete slabs removed within the project limits and stored at the Altadena Maintenance Field Office.

F. Right Of Way

Right of way acquisition is not required for this pavement rehabilitation project. All the work will occur within the existing State right of way. An amount of $487,000 was allocated for field potholing, minor relocation and adjustments to grade (See Right of Way Data Sheet, Attachment 4).

G. Risks

Project risks are outlined in the Risk Register (See Attachment 10).

9. PROGRAMMING

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

Programming
The support cost ratio is 22%.

Fund Source SHOPP	Fiscal Year Estimate						Total	Support vs. Capital %	Historical Support % (Based on State Wide Average)
20.XX.201.122	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23			
Component	In thousands of dollars ($1,000)								
PA&ED Support	750						750	0.6%	1.5%
PS&E Support	3,075	4,100	1,025				8,200	6.8%	8.4%
Right-of-Way Support	250	250					500	0.4%	1.4%
Construction Support			4,125	5,500	5,500	1,375	16,500	13.7%	12.1%
Right-of-Way		487					487		
Construction		120,000					120,000		
Total	4,075	124,837	5,150	5,500	5,500	1,375	146,437	22%	23%

10. SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
APPROVE PID	M010	06/30/15	Actual
PA & ED	M200	09/30/17	Target
PS&E TO DOE	M377	10/30/18	Target
PROJECT PS&E	M380	01/15/19	Target
RIGHT OF WAY CERTIFICATION	M410	02/15/19	Target
READY TO LIST	M460	03/28/19	Target
FUND ALLOCATION	M470	04/29/19	Target
HEADQUARTERS ADVERTISE	M480	06/13/19	Target
AWARD	M495	10/30/19	Target
APPROVE CONTRACT	M500	01/06/20	Target
CONTRACT ACCEPTANCE	M600	01/05/23	Target
END PROJECT	M800	03/31/25	Target

11. RISKS

There are eleven risks identified in the Risk Register (Attachment 10): late discovery of aerially deposited lead, unidentified utilities, utility relocation requires more time than planned, unable to meet Americans with Disabilities Act requirements, the low shrinkage Rapid Strength Concrete (RSC) specification may lead to higher costs, increase of individual distressed slabs, differing site condition of concrete pavement, differing site condition of AC pavement, interference of existing planting and irrigation, high traffic volumes affecting lane closure duration, and conflicting parallel project.

12. PROJECT PERSONNEL

Name	**Department**	**Phone #**
Quang Thai	Project Engineer, Office of Design B	213-897-2762
Oji Kalu	Design Manager, Senior, Office of Design B	213-897-1609
Sam Alameddine	Office Chief, Office of Design B	213-897-2989
Sujaya Kalainesan	Project Manager, Office of Program/Project Management	213-897-1704
Dan Murdoch	Office Chief, Right of Way	213-897-1816
Ali Bamshad	DTM North, Senior	213-897-4152
Grish Biglarian	Traffic Design, Senior	213-897-9300
Farid Nowshiravan	Traffic Investigation, Senior	213-897-4655

Shirley Pak	District Storm Water Coordinator, Senior	213-897-0428
Godson Okereke	District Pavement Program Manager	213-897-2667
Yi Tsau	Electrical, Senior	213-897-0343
Kirsten Stahl	District Material Engineer, Senior	213-897-0470
Prakash Yadav	Hydraulic, Senior	213-897-7534
Kevin Kwan	North Region Maintenance Senior	213-897-2512

13. ATTACHMENTS

1. Location Map
2. Original Project Scope Summary Report
3. Typical Cross Sections
4. Right of Way Data Sheets
5. Preliminary Cost Estimate Worksheet
6. Categorical Exemption / Categorical Exclusion
7. Storm Water Data Report
8. Hazardous Waste Clearance
9. TMP Datasheet
10. Risk Register

ATTACHMENT 1

LOCATION MAP

INDEX OF PLANS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

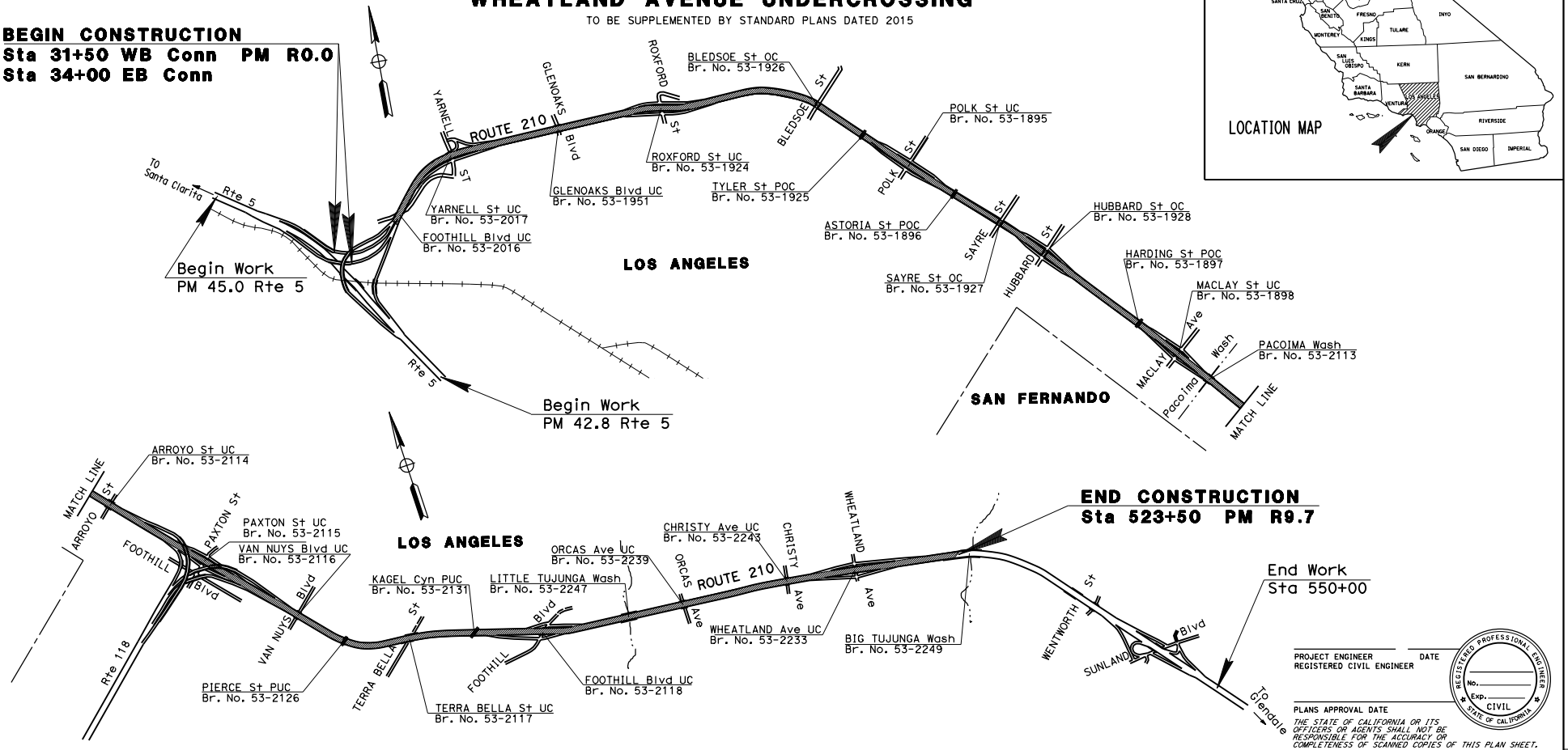
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
IN LOS ANGELES
FROM INTERSTATE 5 TO
WHEATLAND AVENUE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R0.0/R9.7		

BEGIN CONSTRUCTION
Sta 31+50 WB Conn PM R0.0
Sta 34+00 EB Conn

END CONSTRUCTION
Sta 523+50 PM R9.7



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.

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

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

CONTRACT No.	07-309601
PROJECT ID	0714000299

PROJECT MANAGER
DESIGN ENGINEER

LAST REVISION 09-20-16
DATE PLOTTED => 25-SEP-2017
TIME PLOTTED => 08:32

ATTACHMENT 2

ORIGINAL PROJECT SCOPE SUMMARY REPORT

Project Scope Summary Report
(Pavement Rehabilitation)
To
Request for Programming in the 2016 SHOPP

On Route Interstate 210

Between Interstate 5

And Wheatland Ave Undercrossing

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:

DAN MURDOCH, *ACTING DEPUTY DISTRICT DIRECTOR, RIGHT OF WAY*

APPROVAL RECOMMENDED:

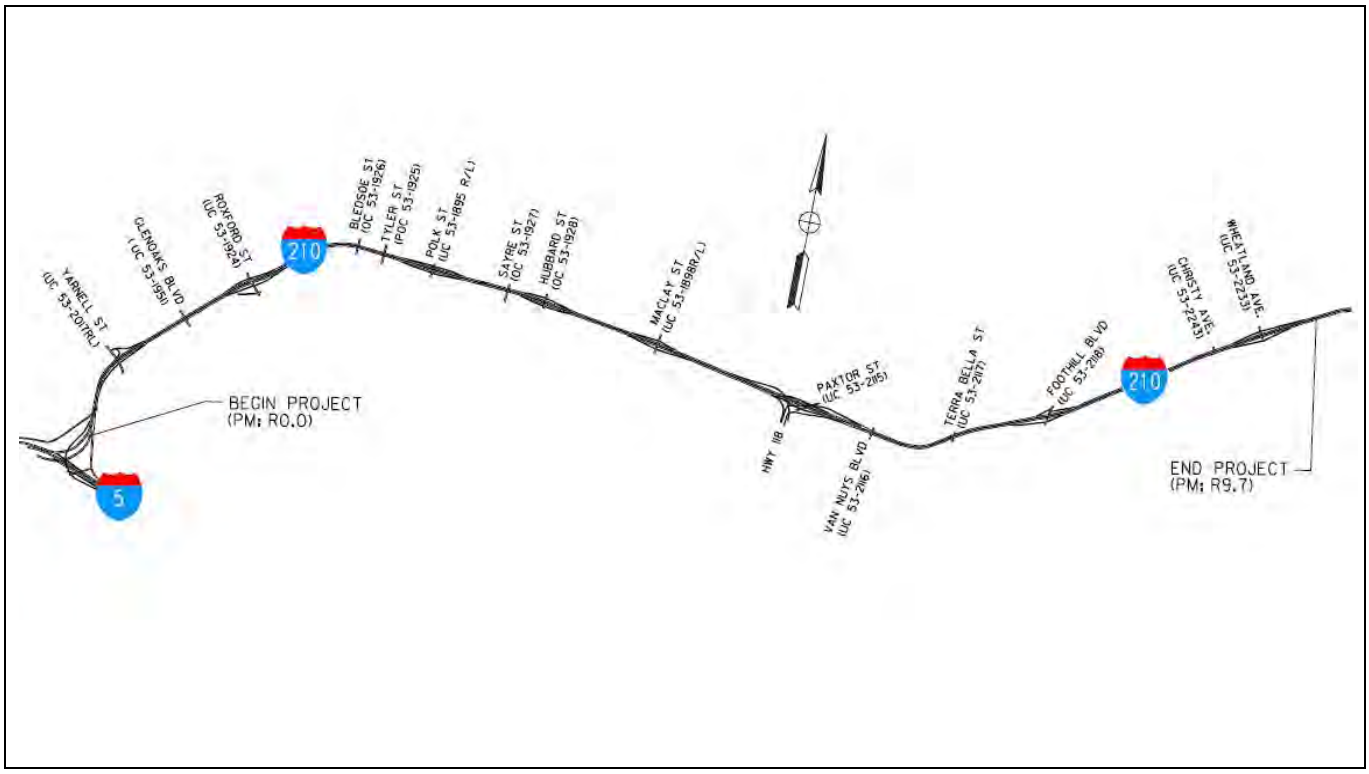
MIRNA DAGHER, *PROJECT MANAGER*

APPROVED:

CARRIE BOWEN, *DISTRICT DIRECTOR*

6/29/15
DATE

Vicinity Map



On Route Interstate 210

Between Interstate 5 (PM R0.0)

And Wheatland Ave Undercrossing (PM R9.7)

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.

6/28/2015

REGISTERED CIVIL ENGINEER *DATE*

Table of Contents

1. INTRODUCTION AND BACKGROUND 1
2. RECOMMENDATION 2
3. PURPOSE AND NEED.....2
4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA.....2
5. CORRIDOR AND SYSTEM COORDINATION.....9
6. ALTERNATIVES.....9
7. TRANSPORTATION MANAGEMENT.....17
8. ENVIRONMENTAL DETERMINATION/DOCUMENT.....18
9. PROJECT ESTIMATE.....18
10. FUNDING/PROGRAMMING.....18
11. SCHEDULE.....19
12. RISKS 19
13. FHWA COORDINATION 19
14. PROJECT REVIEWS.....19
15. PROJECT PERSONNEL.....20
16. ATTACHMENTS.....20

1. INTRODUCTION AND BACKGROUND

Interstate 210 (I-210) is part of the National Highway System (NHS); it is classified as an Interstate, Urban and Principal Arterial. This route is also part of the Federal Surface Transportation Assistance Act (STAA) route network for oversized trucks. I-210 is an Interregional Freeway which originates at Interstate 5 (I-5) near the community of Sylmar in the San Fernando Valley and extends beyond the San Bernardino County Line; within Los Angeles County, it spans 52.15 miles.

Within the project limits, the terrain consists of rolling hills with some grades exceeding 3.0%. There are three-12 foot wide Mixed Flow Lanes (MFL) between PM R0.0 to R6.2, and four-12 foot wide MFL between PM R6.2 to R9.7 in each direction. The ramp and connector lane widths are 12 feet. The left shoulder widths vary from 3-21 feet, and the right shoulder widths vary from 10-15 feet. The posted speed limit is 65 MPH.

This Pavement Rehabilitation (2R) project proposes to replace the existing pavement along the outer two lanes on I-210 between PM R0.0 and PM R9.7 in Los Angeles County, with a pavement structure that should provide a minimum service life of 40 years; the 2R Certification is found in Attachment C. This project also proposes pavement rehabilitation for the on/off-ramps, connectors and adjacent shoulders. In addition, this project recommends upgrading the following: Metal Beam Guardrail (MBGR); dikes; sign structures and panels; curb ramps; traffic loop detectors; and some other highway appurtenances and facilities within the project limits.

This project will be submitted for programming into the 2016 State Highway Operation Protection Program (SHOPP) cycle as part of the Pavement Rehabilitation Program (201.122); the proposed program year is 2018/19. The estimated capital cost is shown in table below:

Project Limits	07-LA-210 PM R0.0/R9.7	
Number of Alternatives	Two	
Programmable Project Alternative	Alternative Two	
	Current Cost Estimate:	**Escalated Cost Estimate:**
Capital Outlay Support	-	$ 21.00 million
Capital Outlay Construction	$ 89.91 million	$ 104.08 million
Capital Outlay Right of Way	$ 0.23 million	$ 0.36 million
Funding Source	SHOPP (201.122)	
Funding Year	2018/19	
Type of Facility	3 to 4 lanes highway	
Number of Structures	35	
SHOPP Project Output	51.7 lane miles	
Anticipated Environmental Determination or Document	Categorically Exempt/ Categorically Excluded	
Project Development Category	5	

2. RECOMMENDATION

It is recommended that this project be programmed using alternative two and that the project proceed to the design phase.

3. PURPOSE AND NEED

Purpose:

This project proposes to restore the facility to a state of good repair and improve the ride quality by rehabilitating the existing pavement (as proposed in Section 6) with a pavement structure that should provide a service life of 40 years, so that the pavement will be in a condition that only requires minimal maintenance expenditures by the Department.

Need:

The 2011 Pavement Condition Survey Inventory found in Attachment D, and briefly summarized in Section 4B, indicates the existing pavement has minor structural problems and needs pavement rehabilitation. A recent field investigation shows the pavement condition is in need of a major rehabilitation. The continued deterioration of the pavement will decrease the ride quality of existing roadway.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. Roadway Geometric Information

Facility (PM)	Minimum Curve Radius (ft)	Through Traffic Lanes				Paved Shoulder Width (ft)				Median Width (ft)	Shoulder is a Bicycle Lane (Y/N)	Bicycle Route	Facilities Adjacent to the Roadbed[1]
		No. of Lanes		Lane Width (ft)	Type	EB (ft)		WB (ft)					
		EB	WB			Left	Right	Left	Right				
3R Standards	***3,000***	**-**	**-**	***12***	**-**	***10***	***10***	***10***	***10***	***22***			
R0.000/R0.305 (SB5/EB210) Connector	1,200	3	NA	12	PCC	5	10	NA	NA	NA	N	N	L
R0.000/R0.363 (SB5/EB210) Connector	1,236	NA	3	12	PCC	NA	NA	5	10	NA	N	N	L
R0.305/R0.363 (WB210/NB5) Connector	Tangent	3-4	NA	12	PCC	5-23	10	NA	NA	NA	N	N	L
R0.363/R0.576	Tangent	3-4	3	12	PCC	17	10	17	10	36	N	N	L
R0.576/R0.914	2,000	3	3	12	PCC	17	10	17	10	36	N	N	L
R0.914/R1.777	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R1.777/R1.897	3,000	3	3	12	PCC	17	10	17	10	36	N	N	L

Facility (PM)	Minimum Curve Radius (ft)	Through Traffic Lanes				Paved Shoulder Width (ft)				Median Width (ft)	Shoulder is a Bicycle Lane (Y/N)	Bicycle Route	Facilities Adjacent to the Roadbed[1]
		No. of Lanes		Lane Width (ft)	Type	EB (ft)		WB (ft)					
		EB	WB			Left	Right	Left	Right				
R1.897/R1.994	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R1.994/R2.093	2,500	3	3	12	PCC	17	10	17	10	36	N	N	L
R2.093/R2.316	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R2.316/R2.785	3,000	3	3	12	PCC	17	10	17	10	36	N	N	L
R3.013/R3.224	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R3.224/R3.352	30,000	3	3	12	PCC	17	10	17	10	36	N	N	L
R3.382/R3.873	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R3.873/R4.021	10,000	3	3	12	PCC	17	10	17	10	36	N	N	L
R4.021/R4.566	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R4.566/R4.760	30,000	3	3	12	PCC	17	10	17	10	36	N	N	L
R4.760/R5.918	Tangent	3-4	3-4	12	PCC	17	10	17	10	36	N	N	L
R5.918/R5.984	Tangent	3	3	12	PCC	17	10	17	10	36	N	N	L
R5.984/R6.765	Tangent	3	3-6	12	PCC	17	10	17	10	36	N	N	L
R6.765/R7.060	2,020	4	4-6	12	PCC	14	15	14	10	36	N	N	L
R7.138/R7.157	Tangent	4	4	12	PCC	14	15	14	10	36	N	N	L
R7.157/R7.380	5,000	4	4	12	PCC	14	10	14	15	36	N	N	L
R7.380/R7.753	Tangent	4	4	12	PCC	14	10	14	15	36	N	N	L
R7.753/R8.193	10,000	4	4	12	PCC	14	10	14	10	36	N	N	L
R8.193/R8.894	Tangent	4	4	12	PCC	14	15	14	15	36	N	N	L
R8.894/R9.054	10,000	4	4	12	PCC	14	15	14	15	36	N	N	L
R8.894/R9.882	Tangent	4	4	12	PCC	14	10	14	10	36	N	N	L

Note:

1: L – Landscaped area between the curb and sidewalk

Remarks:

None

4B. Condition of Existing Facility

The latest available (2011) pavement condition survey inventory for I-210 is summarized below:

1) Traveled Way Data

PMS Category (1-29) 9 Priority Classification (.1-.4) .33
International Roughness Index (IRI) 75-266 (Avg. 126)

Rigid Pavement:		Flexible Pavement:	
3rd Stage Cracking %	0.6%	Alligator B Cracking %	N/A
Faulting	YES	Patching %	N/A
Joint Spalls	NO	Rutting	N/A
Pumping	NO	Bleeding	N/A
Corner Breaks %	0.1 %	Raveling	N/A

Locations(s) of subsurface or ponded surface-water problem:

Based on the observations during the field scoping meeting, there were no subsurface or ponded surface-water problems identified within the project limits.

Deflection Study Results:

Since the existing mainline pavement is rigid, a deflection study is not required for this project.

2) Shoulder Data

The existing paved left and right shoulders are constructed with asphalt concrete (AC) pavement. The left paved shoulder width varies from 14-17 feet and the right shoulder width varies from 10-15 feet.

Condition:

The existing AC pavement is in fair condition; rutting and some alligator cracks are visible along the shoulders.

Deficiencies

N/A

3) Pedestrian Facility Data

Within the project limits, existing curbs at intersections and crosswalks with pedestrian facilities that are either without curb ramps or with curb ramps that are not meeting current standards, will be upgraded to current standards, per Design Information Bulletin (DIB) 82-05 (Attachment E).

4) Bicycle Path Data

There are no bicycle facilities within the project limits.

4C. Structures Information

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/Br No./PM	Exist (ft)	3R Std (ft)	Proposed	(Y or N)	Exist (ft)	3R Std (ft)	Prop.	(Y or N)	(Y or N)	(Y or N)	#
North Connector OC (WB210-NB5 Connector) Br No 53-1991F PM R0.02	**50.83**	56	Exist.	N	17	16.50	Exist.	Y	N	N	-
WB210-SB5 Connector OC Br No 53-1989F PM R0.06	**32.15**	39	Exist.	N	18.90 25	16.50	Exist.	N	N	N	-
WB210-SB5 Connector Sep Br No 53-1988F PM R0.12	**32.15**	39	Exist.	N	21.10	16.50	Exist.	Y	N	N	-
NB5-EB210 Connector OC Br No 53-1990G PM R43.83	**32**	39	Exist.	N	25	16.50	Exist.	N	N	N	-
SB5-EB210 Connector OC Br No 53-1985F PM R44.01	**63**	68	Exist.	N	**15.80**	16.50	Exist.	Y	N	N	-
Foothill Blvd UC Br No 53-2016 L/R PM R0.43	EB **63** WB **63**	EB 68 WB 68	Exist.	N	18.24	15	Exist.	Y	N	N	-
Yarnell St UC Br No 53-2017 L/R PM R0.84	EB **50.85** WB **63**	EB 56 WB 68	Exist.	N	15.22 18.73	15	Exist.	Y	N	Y	1
Glenoaks Blvd UC Br No 53-1951 L/R PM R140	EB **50.85** WB **50.85**	EB 56 WB 56	Exist.	N	19.42 15.68	15	Exist.	Y	N	N	-
Roxford St UC Br No 53-1924 L/R PM R1.92	EB **50.85** WB **50.85**	EB 56 WB 56	Exist.	N	15.55	15	Exist.	Y	N	N	-
Bledsoe St OC Br No 53-1926 PM R2.74	N/A	N/A	Exist.	N	18.83	16.50	Exist.	N	N	N	-
Tyler St POC Br No 53-1925 PM R3.01	N/A	N/A	Exist.	N	18.83	18	Exist.	Y	N	N	-
Polk St UC Br No 53-1895 L/R PM R3.28	EB **50.85** WB **50.85**	EB 56 WB 56	Exist.	N	15.49	15	Exist.	Y	N	N	-
Astoria St POC Br No 53-1896 PM R3.57	N/A	N/A	Exist.	N	19.06	18.50	Exist.	Y	N	N	-

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/Br No./PM	Exist (ft)	3R Std (ft)	Proposed	(Y or N)	Exist (ft)	3R Std (ft)	Prop.	(Y or N)	(Y or N)	(Y or N)	#
Sayre St OC Br No 53-1927 PM R3.84	N/A	N/A	Exist.	N	17.49	16.50	Exist.	N	N	N	-
Hubbard St OC Br No 53-1928 PM R4.11	N/A	N/A	Exist.	N	18.57	16.50	Exist.	N	N	N	-
Harding St POC Br No 53-1897 PM R4.70	N/A	N/A	Exist.	N	18.24	18.50	Exist.	Y	N	N	-
Maclay St UC Br No 53-1898 L/R PM R4.94	EB **50.85** WB 63	EB 56 WB 56	Exist.	N	15.06	15	Exist.	Y	N	Y	6
Pacoima Wash Br No 53-2113 PM R5.14	148.29	EB 68 WB 68	Exist.	N	N/A	N/A	Exist.	N	N	N	-
Arroyo St UC Br No 53-2114 PM R5.46	160.43	EB 80 WB 68	Exist.	N	16.67	15	Exist.	N	N	N	-
EB118-WB210 Connector Br No 53-2102G PM R13.94	40	39	Exist.	N	32	16.50	Exist.	N	N	N	-
EB210-WB118 Connector Br No 53-2105G PM R5.96	40	39	Exist.	N	21	16.50	Exist.	N	N	N	-
Paxton St UC Br No 53-2115 PM R6.01	123	EB 56 WB 56	Exist.	N	19.25	15	Exist.	N	N	N	-
WB210-WB118 Connector Br No 53-2104F PM R6.08	40	39	Exist.	N	22.15 25 25 40	16.50	Exist.	N	N	N	-
EB118-EB210 Connector Br No 53-2103G PM R13.89	40	39	Exist.	N	19.07	16.50	Exist.	N	N	N	-
Van Nuys Blvd UC Br No 53-2116 PM R6.56	183.40	EB 80 WB 92	Exist.	N	17.16	15	Exist.	N	N	N	-
Pierce St PUC Br No 53-2126 PM R6.84	175.85	EB 68 WB 92	Exist.	N	N/A	N/A	Exist.	Y	N	N	-
Lopez Canyon Br No 53-2369 PM R6.94	169.95	EB 68 WB 80	Exist.	N	N/A	N/A	Exist.	N	N	N	-
Terra Bella St UC Br No 53-2117 PM R7.16	142.39	EB 68 WB 68	Exist.	N	15.22	15	Exist.	N	N	N	-
Kagel Canyon St PUC Br No 53-2131 PM R7.51	150.92	EB 68 WB 68	Exist.	N	N/A	N/A	Exist.	Y	N	N	-
Foothill Blvd UC Br No 53-2118 PM R7.82	142.39	EB 68 WB 68	Exist.	N	17.65	15	Exist.	N	N	Y	4
Little Tujunga Wash Br No 53-2247 PM R8.28	142.39	EB 68 WB 68	Exist.	N	N/A	N/A	Exist.	N	N	N	-
Orcas Ave UC Br No 53-2239 PM R8.55	142.39	EB 68 WB 68	Exist.	N	15.32	15	Exist.	N	N	-	-

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/Br No./PM	Exist (ft)	3R Std (ft)	Proposed	(Y or N)	Exist (ft)	3R Std (ft)	Prop.	(Y or N)	(Y or N)	(Y or N)	#
Christy Ave UC Br No 53-2243 PM R9.08	142.39	EB 68 WB 68	Exist.	N	16.67	15	Exist.	N	N	-	-
Wheatland Avenue UC Br No 53-2233 PM R9.43	142.39	EB 68 WB 68	Exist.	N	16.24	15	Exist.	N	N	-	-
Big Tujunga Wash Br No 53-2249 PM R9.89	142.39	EB 68 WB 68	Exist.	N	N/A	N/A	Exist.	N	N	-	-

Note: The **bold** figures do not meet Mandatory Highway Design Manual requirements.

Remarks:

The work indentified in the Structure Replacement and Improvement Needs Report (STRAIN) is primarily for bridge rail replacement; these locations could be addressed by other projects as part of the Bridge Rehabilitation Program.

4D. Traffic Data

Present Year AADT (2014) 119,400

Construction Year AADT (2020) 126,700 20-Year AADT 145,600

DHV 6.7 40-Year AADT 177,700

D 60% % Trucks 7.13

T.I. (20-Year) 14.8 ESAL (20-Year) 64,000,000

T.I. (40-Year) 16.0 ESAL (40-Year) 128,000,000

Safety Field-Review 8/12/2014

3-Year Table B Accident Data: 4/1/2009 to 3/31/2012

Mainline:

A summary of the actual accident rates and the statewide average rates for similar facilities are given in the following table.

Direction	Accidents Per Million Vehicle Miles (accs/mvm)					
	Actual Rates			Average Rates		
	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
EB	0.00	0.07	0.28	0.003	0.21	0.67
WB	0.00	0.17	0.47	0.003	0.21	0.67

The Traffic Accident Surveillance and Analysis System (TASAS) Table B summary for the three year study period shows that I-210 within the project limits has lower than the average accident rates for similar freeways statewide for fatal, fatal + injury and total accident rates.

The aforementioned summary showed 361 accidents on the mainline (227 eastbound and 134 westbound). Of the total accidents, none were fatal, 114 were injuries, and 247 were property damage only accidents.

The types of collisions were as follows: 131 (36.3%) hit object; 121 (33.5%) rear end; 81 (22.4%) sideswipe; 2 (0.6%) head-on; 10 (2.8%) overturn; 8 (2.2%) other; 6 (1.7%) broadsides; 2 (0.6%) auto-pedestrian; and 0 (0.0%) not stated.

The primary collision factors for the majority of the accidents are as follows: 133 (36.8%) speeding; 81 (22.4%) improper turns; 76 (21.1%) other violations; 34 (9.4%) alcohol influence and 27 (7.5%) other than driver.

Locations of Collision Concentration:

During the study period, only one Table C "WET investigation" location was identified. (EB I-210 to WB SR-118 Connector PM R5.762). A project (EA 4T3704) that installed a concrete barrier along the left shoulder and improved both pavement skid resistance and highway lighting to address wet pavement and run-off-road accidents at the connector was completed in early 2014.

Ramps:

The table below shows ramp locations where the actual fatal+injury accident rates are higher than the statewide average accident rates, for the period between April 1, 2010 and March 31, 2013.

Post Mile	Ramp	Actual (accs/mvm)			Average (accs/mvm)		
		Fatal	F+I	Total	Fatal	F+I	Total
R1.755	WB On from Roxford St.	0.00	0.22	0.67	0.002	0.22	0.63
R2.137	EB On from Roxford St.	0.00	0.00	0.74	0.002	0.22	0.63
R3.949	WB On from Hubbard St.	0.00	1.03	1.81	0.002	0.22	0.63
R3.969	EB Off to Hubbard St.	0.00	0.28	1.66	0.003	0.35	1.01

Post Mile	Ramp	Actual (accs/mvm)			Average (accs/mvm)		
		Fatal	F+I	Total	Fatal	F+I	Total
R4.792	WB On from Maclay St.	0.00	0.98	0.98	0.002	0.22	0.63
R5.086	EB On from Maclay St.	0.00	0.16	0.65	0.002	0.22	0.63
R6.169	WB Off to Paxton St.	0.00	1.12	1.86	0.003	0.35	1.01

Corrective Strategy:

Pursuant to Design Information Bulletin (DIB) 79-03, a Safety Screening (Attachment F) was conducted. As part of the 2R safety screening process, the mainline, ramps and connectors within the project limits were analyzed for potential safety issues. Cost effective counter measures for accident patterns in these locations were recommended by the Office of Traffic Engineering-North, that should help reduce collisions are included as part of Alternative 2.

4E. Materials

The District's Materials Engineer pavement structural section recommendations are found in Attachment G.

5. CORRIDOR AND SYSTEM COORDINATION

The District System Management Plan is under development. The Corridor System Management Plan (CSMP) dated September 2010 provides no long-term transportation plan for the corridor within this project limits in the CSMP.

Pursuant to the June 2013 Transportation Concept report (TCR), this project is located within Segments 1 and 2. The ultimate TCR alterative for Segment 1 is six mixed flow lanes (both directions) and nine mixed flow lanes (both directions) for Segment 2.

The scope for this project is consistent with the two pavement rehabilitation projects on I-210 listed below:

Project	Location (PM)	Scope	Milestones
ID: 0700020957 EA: 07-28801	R9.7-R16.1	Roadway Rehabilitation	RTL on: 4/26/2013 CCA on: 12/9/2016
ID: 0712000149 EA: 07-2881U	R16.1-R25.8	Roadway Rehabilitation	RTL on: 3/28/2014 CCA on: 1/16/2018

6. ALTERNATIVES

There are two alternatives considered for this project.

1) No Build Alternative. This alternative will have as a consequence, the continued deterioration of the pavement surface and the structural section leading to continued repairs, decreased ride quality, and potentially decreased mobility. Pavement rehabilitation will still be required in the future.

2) Build Alternative. This is the recommended alternative to address the pavement needs within the project limits. The proposed pavement rehabilitation strategies, and scope of work are stated below:

6A. Pavement Rehabilitation Strategy:

Mainline:

I-210 is a 6-lane freeway (three lanes in each direction) from PM R0.0 to R6.2 and an 8-lane freeway (four lanes in each direction) from PM R6.2 to R9.7. Due to the different lane configurations, the two segments of the freeway will require different lane replacement and pavement rehabilitation strategies and are discussed below:

- The segment between PM R0.0 to R6.2 has predominantly three lanes in each direction. The lane adjacent to the median is referred to as the #1 lane, the middle lane is the #2 lane, and the outer lane adjacent to the right shoulder is the #3 lane. The individual distressed slabs found in the #1 lane will be replaced with RSC or precast concrete panels in each direction; the #2 lane will be reconstructed with JPCP-Rapid Strength Concrete (RSC); and the #3 lane will be reconstructed with Jointed Plain Concrete Pavement (JPCP). Following the slab replacement, the entire surface of lane #1 will be grinded to correct faulting problems and provide smooth driving conditions.

- The #3 lane will be constructed at a width of 14 feet, with the extra two feet encroaching into the right shoulder. After striping, the #3 lane will be 12 feet wide. See Attachment B (Typical Sections) for more information.

- The segment between PM R6.2 to R9.7 has four lanes in each direction. The outer two lanes, the #3 and #4 lanes, will be reconstructed with JPCP. Individual distressed slabs found in the #1 and #2 lanes will be replaced with RSC or precast concrete panels in each direction. Following the slab replacement, the entire surface of lanes #1 and #2 will be grinded to correct faulting problems and provide smooth driving conditions. The #4 lane will be constructed at a width of 14 feet, with the extra two feet encroaching into the right shoulder. After striping, the #4 lane will be 12 feet wide.

- At locations where traffic will need to be placed on the pavement in less time than is available to remove, place, and cure the new concrete pavement and base, then rapid setting or precast concrete will need to be used. Where possible, Lean Concrete Base Rapid Strength (LCBRS) or Roller Compacted Concrete Base

(RCCB) should be considered to reduce construction time. See Attachment B (Typical Sections) for more information.

- In order to gain better lateral support and provide room for trucks and buses to "off-track" between the outer lane and the right shoulder, the proposed new structural section will be extended two feet into the adjacent shoulder as noted below.

- The structural section to be used for the mainline lane replacement is as follows:

1.20'	JPCP or JPCP-RSC
------	Base Bond Breaker
0.35'	Alternate Treated Base*
0.70	Aggregate Base (AB) Class 3
------	SEG (Subgrade Enhancement Geotextile)
2.25'	Total

* LCB, LCBRS, or RCCB to be selected at the contractor's option.

- Repair of damaged or broken Portland Cement Concrete (PCC) slabs found in the inner lanes (#1 and #2) should be done using current best practices for crack and spall repair. Where warranted, the entire thickness of the existing PCC slabs will be removed with the non-impact method, and subsequently replaced with the same thickness of RSC. A bond breaker shall be placed between the underlying base and new slab pavement. The base should be repaired or replaced as needed.

Left Shoulders:

Long-term lane closures are needed, as the District Traffic Manager requires a minimum of three lanes to be open between PM R0.0 to PM R6.2 and four lanes to be open between PM R6.2 to PM R9.7 during day-time hours. For project initiation purposes, the cost estimate for this project assumes the left shoulder will be used for traffic staging to allow the long-term closure of the #3 and/or the #4 lanes. Between PM R6.2 to R9.7, the left shoulder will be used as a through-lane, thereby allowing a minimum of one lane to be shifted onto the opposite direction roadway in order to allow the long-term closure of the #3 lane.

- The existing AC left shoulders will be reconstructed for temporary use as through-lanes during construction. See Attachment B (Typical Sections) for more information. The new left shoulders pavement structure will be as follows:

0.85'	JPCP
-------	Base Bond Breaker
0.35'	Lean Concrete Base
Varies	Exist Aggregate Base
1.00'	Total

Auxiliary Lanes:

- The existing PCC auxiliary lanes will be removed and reconstructed with the same structural section as the mainline.

Gore Areas:

- The gore areas will be cold-planed and overlaid with 0.25’ Rubberized Hot Mix Asphalt-Type G (RHMA-G).

Right Shoulders:

- The two feet adjacent to the travel way will be reconstructed as part of the mainline lane replacement. The remaining width of the AC shoulder will be cold-planed and overlaid with 0.25’ Rubberized Hot Mix Asphalt-Type G (RHMA-G).

On/Off-Ramps and Connectors:

Ramps

- In-kind replacement of existing cracked PCC slabs with RSC at ramp termini.
- Cold-plane and overlay with 0.15’ RHMA-G on AC lane and shoulders.
- Repair localized failed pavement as needed.
- Replace affected traffic loop detectors.

Connectors

NB & SB I-5 to EB I-210, WB I-210 to NB & SB I-5, EB SR-118 to EB & WB I-210, and EB & WB I-210 to WB SR-118 are included in this project.

- Cold-plane and overlay with 0.15’ RHMA-G on AC lane and shoulder areas.
- Repair localized failed pavement as needed.
- Repair spalling.
- Grind the existing PCC pavement to restore surface friction and provide smooth driving conditions.

Other Improvements:

The following improvements are also proposed as part of this project:

- Upgrade curb ramps to current Americans with Disabilities Act (ADA) standards.
- Upgrade MBGR and their end treatments within the project limits to the new Midwest Guardrail System (MGS).
- Upgrade all existing MBGR connections to either bridge railings or concrete barriers on the approach ends within the project limits.
- Upgrade AC dikes to the 2010 standard height.
- On the approach ends, the existing MBGR connections to either a bridge railing or concrete barrier will be upgraded with a transition railing (Type WB-31) to meet current standards plans requirement.
- Per the bridge inspection reports, this project recommends to replace 11 damaged bridge approach/departure slabs that meet current lane replacement standards.
- Upgrade existing concrete barrier (Type 50) to current standards, where impacted by stage construction or pavement rehabilitation activities.
- Replace existing overhead steel box sign structures with new truss-type sign structures that meet current wind load standards.
- Replace sign panels with new panels consistent with current reflectivity standards.
- Upgrade freeway sign lighting fixtures with energy efficient/lower maintenance systems to improve system reliability.
- Upgrade highway lighting systems with new energy efficient lighting and conduit and theft-resistant pull boxes to improve system reliability.
- Replace roadside signs with new signs where needed at on and off-ramps.
- Replace high night-time visibility thermoplastic striping at on and off-ramps.
- Replace missing Type F and Type G delineators at all on and off-ramps. Install at 200 feet intervals on tangent and variable spacing at curves.
- EB I-210 off-ramp to Polk St (PM R3.12) and WB I-210 on-ramp from Polk St (PM R3.13): replace all 8-inch section traffic signal heads with 12-inch section heads for improved visibility. Signal poles with longer mast-arms may be needed for both directions of Polk St.

- WB I-210 on-ramp from Hubbard St (PM R3.95) and WB I-210 off-ramp to Hubbard St (PM R4.26): upgrade the traffic signal and safety lighting at the on and off-ramps to meet current standards.

- WB I-210 on-ramp from Maclay St (PM R4.79): upgrade the traffic signal and safety lighting at the WB on and off-ramps.

- EB I-210 off-ramp to Paxton St (PM R5.92) and WB I-210 off-ramp to Paxton St (PM R6.17): upgrade intersection safety lighting.

- WB I-210 on-ramp from Osborne St/Foothill Blvd (PM R7.73) and WB I-210 off-ramp to Osborne St/Foothill Blvd (PM R8.01): upgrade the traffic signal at the intersection of Foothill Blvd and the I-210 on and off-ramps to current standards.

- I-210 at Foothill Blvd UC: upgrade the existing MBGR shielding the bridge columns in the median of Foothill Blvd with a concrete barrier and install crash attenuators at the lending ends.

- For the entire project, replace existing lane lines and edge lines striping with enhanced wet and night visibility thermoplastic striping.

The current capital outlay construction cost for this alternative is estimated at $89.91 million; the life-cycle cost is $92.28 million dollars as determined with the "Real Cost" tool (Attachment H).

6B. Design Exceptions:

Pursuant to DIB 79-03, this project was "2R" certified; as such the preparation of a Fact Sheet for Exceptions to Mandatory Design Standards for existing geometric design features was not required.

The existing cross slope of the travel way is 1.5%. The mandatory standard for new construction for the travel way is 2.0% per HDM Index 301.3 (2)(a). This 2R project proposes to keep the existing 1.5%, which is allowed for this program. In the next phase of this project, if schedule/funding permits, additional studies could be under taken to determine if the cross slope should be adjusted to 2.0%. The other existing non-standard features identified in Section 4 will remain as is.

6C. Environmental Compliance:

A Mini-Preliminary Environmental Analysis Report (PEAR) was approved on December 23, 2014 (Attachment L). It is anticipated this project will be found to be categorically exempt and categorically excluded under CEQA and NEPA guidelines respectively.

6D. Hazardous Waste Disposal Site Required? If Yes, Where Are Sites?

The District's Hazardous Waste Unit, through a Memorandum dated December 3, 2014, states the potential that Aerially Deposited Lead (ADL) may exist in the unpaved areas within the project limits. The ADL Site Investigations (SI) that was conducted in the past does not cover the edge of the project areas where MBGRs and dikes will be replaced. Therefore, it will be required to conduct further investigations to determine the actual levels of contamination and provision for handling and disposal of the contaminated soils. The ADL SI will be performed in the PS&E phase. Soils that are contaminated with ADL and yellow thermoplastic traffic stripes that are generated from this project need to be disposed at a Class I facility. The cost for offsite disposal and for the preparation of Lead Compliance Plan (LCP) is included in the project cost.

The contractor shall prepare a project specific LCP to prevent or minimize worker exposure to lead while handling removed traffic stripes residue lead in the soil.

Any treated wood waste will require special handling during removal and subsequent disposal. A special provision to address this concern should be included in the PS&E package.

6E. Other Agencies Involved (Permits/Approvals From Fish And Game, Corps Of Engineers, Coastal Commission, Etc.):

The Los Angeles Region Water Quality control Board (LARWQCB) will oversee the project's compliance with storm water regulations.

6F. Material And/Or Disposal Site Need And Availability?

Any material that is not salvaged by Caltrans shall become the property of the contractor and be disposed of outside the State right of way in accordance with Caltrans standards and specifications. The location and availability of disposal sites will be determined during the design phase.

6G. Highway Planting And Irrigation:

The costs to repair highway planting and irrigation damaged by this project are included in the project cost estimate.

6H. Roadside Design And Management

Roadside safety improvement items such as vegetation control treatments under guardrails; paving areas beyond the gore, narrow areas, and slopes adjacent to concrete ditches are included in this project.

The project also proposes to hardscape the bridge embankment slopes at Slayre Overcrossing and Hubbard Overcrossing.

6I. Stormwater Compliance:

A long form Storm Water Data Report (SWDR) was prepared in accordance with the July 2010 Edition of Storm Water Quality Handbook-PPDG and was approved on June 11, 2015. (Attachment I).

6J. Right Of Way And Utility Issues:

Right of way acquisition is not required for this pavement rehabilitation project. All work will occur within existing State right of way. An amount of $228,000 current value (escalated value is $357,635) was allocated for field potholing purposes (See Right of Way Data Sheet, Attachment J).

6K. Railroad Involvement:

No railroad involvement is expected for this project.

6L. Salvaging And Recycling Of Hardware And Other Non-Renewable Resources:

All materials, including but not limited to MBGR should be reused or salvaged, if they match Caltrans standards.

6M. Prolonged Temporary Ramp Closures:

Ramp closures will be required. Traffic detours are anticipated and project specific closure charts will be developed during the design phase.

6N. Recycled Materials:

The project will generate approximately 300 cubic yards of asphalt, concrete, Class 3 aggregate and soil. Material not recycled onsite should be sent to mixing plants for recycling.

6O. Local And Regional Input:

Not applicable.

6P. What Are The Consequences Of Not Doing This Entire Project?

The existing pavement will continue to deteriorate, resulting in decreased ride quality and increased maintenance costs; thereby impacting mobility throughout the corridor.

The scope of this project will eventually need to be undertaken, presumably at an even greater capital cost.

6Q. List All Alternatives Studied, Cost, Reasons Not Recommended, Etc.:

There are three other pavement strategies for the two outer lanes that were studied but not recommended; the rehabilitation strategies for the inner lanes are the same strategies discussed in Section 6A. The capital costs shown are for the entire project (See Attachment H for the respective Life-Cycle Cost for each strategy).

1. Crack, seat and overlay (CSO) the existing pavement with new asphalt pavement. This alternative can be engineered to provide either a 20-year or 40-year design life. This strategy is similar to Hot Mix Asphalt pavement which is not a viable long-term solution. The expected service life is 10 years, and as such, additional maintenance would be needed at unforeseen future costs, in order to obtain a service life of 40 years, which the other strategies provide. Another concern with the CSO strategy is that grade adjustments would be required. Raising the surface profile of the roadbed would affect existing drainage inlets, sound walls, vertical clearances and other unforeseen issues, thereby increasing the project cost. The current capital outlay construction cost for this Alternative is estimated at $60.68 million, and the total life-cycle costs for this strategy are $161.84 million.

2. Rapid Strength Concrete structural section could be used, as construction and roadway closures time is reduced, compared with the other rehabilitation strategies discussed in this report, thereby reducing the impacts to the motorists. Although the initial cost is higher than the other alternatives, lower maintenance, in comparison to the CSO alternative would be required during the expected 40-year service life. Reduced roadway closure times during construction coupled with the anticipated service life of the roadway translates into many hours saved by users in traffic delays. The current capital outlay construction cost for this Alternative is estimated at $98.80 million, and the total life-cycle costs for this strategy are $100.45 million.

3. Precast Prestressed Concrete pavement (PPCP) strategy is similar to the RSC pavement strategy discussed above. The current capital outlay construction cost for PPCP is the highest of all studied alternatives. It is estimated at $108.42 million, and the total life-cycle costs for this strategy are $108.88 million.

7. TRANSPORTATION MANAGEMENT

7A. Transportation Management Plan

A Transportation Management Plan (TMP) will be prepared during the design phase and the Preliminary TMP Data Sheet approved on September 9, 2014 is shown in Attachment K.

7B. Vehicle Detection Systems

Loop detectors removed and/or damaged during construction will be replaced on this project. An amount of $35,000 is allocated in the cost estimate.

A Microwave Video Detection System, which is a temporary vehicle detection system on the mainline, is being incorporated into this project. Actual locations will be determined during the design phase. An amount of $250,000 is allocated in the cost estimate.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

Pursuant to the Mini-PEAR found in Attachment L, it is anticipated this project will be certified as categorically exempt and categorically excluded under CEQA and NEPA guidelines respectively.

9. PROJECT ESTIMATE

The current total capital outlay construction cost including right of way is estimated at $90.14 million based on the recommended alternative (Attachment M).

10. FUNDING/PROGRAMMING

It has been determined that this project is eligible for federal-aid funding. This project will be submitted for programming into the 2016 State Highway Operation Protection Program (SHOPP) cycle as part of the Pavement Rehabilitation "2R" Program (201.122); the proposed program year is 2018/19. The estimated capital outlay cost including right of way is $90.14 million dollars in 2015 dollars; the escalated capital outlay cost including right of way in the proposed program year will be $104.44 million dollars; the escalation factor is 5% per year for construction and 8% per year for right of way; the table below shows the escalated figures:

Fund Source	Fiscal Year Estimate					
20.XX.201.122	Prior	2016/17	2017/18	2018/19	Future	Total
Component	In thousands of dollars ($1,000)					
PA&ED Support		500				500
PS&E Support		2,000	3,000	1,000		6,000
Right of Way Support		100	200	200		500
Construction Support				8,000	6,000	14,000
Right of Way			286	72		358
Construction				104,084		104,084
Total		2,600	3,486	113,356	6,000	125,442

The support cost ratio is 20.13%.

11. SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	8/10/2016
BEGIN ENVIRONMENTAL	M020	8/10/2016
PA&ED	M200	3/1/2017
PROJECT PS&E	M377	6/5/2018
RIGHT OF WAY CERTIFICATION	M410	9/27/2018
READY TO LIST	M460	10/25/2018
APPROVE CONTRACT	M500	4/25/2019
CONTRACT ACCEPTANCE	M600	4/26/2021
END PROJECT	M800	10/13/2021

12. RISKS

Pursuant to District Directive 35 (DD-35), risk management activities were conducted. Based on the project size, these activities included a formal qualitative and quantitative risk analysis. The resulting risk register is found in Attachment P.

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 Project Team Members Date: 8/12/2014
District Program Advisor Godson Okereke Date: 5/21/2015
Headquarters SHOPP Program Advisor Leo Mahserelli Date: 10/8/2014
District Maintenance Kevin Kwan Date: 5/21/2015
Headquarters Design Coordinator Peter Vacura Date: 5/21/2015
District Office of Design B Oji Kalu Date: 5/21/2015
District Traffic Engineering Ken Hatai Date: 5/21/2015
Project Manager Mirna Dagher Date: 5/21/2015
FHWA Josue Yambo Date: 5/21/2015
Quality Review Project Team Members Date: 5/21/2015

15. PROJECT PERSONNEL

Name	Role/Office	Phone
Marco Ruano	Chief, Office of Project and Special Studies (OPSS)	(213) 897-9863
Rafael Molina	Senior Transportation Engineer, OPSS	(213) 897-7945
Kenneth Yip	Project Engineer, OPSS	(213) 897-0076
Mirna Dagher	Project Manager	(213) 897-2786
Godson Okereke	District Program Advisor (201.122)	(213) 897-2667

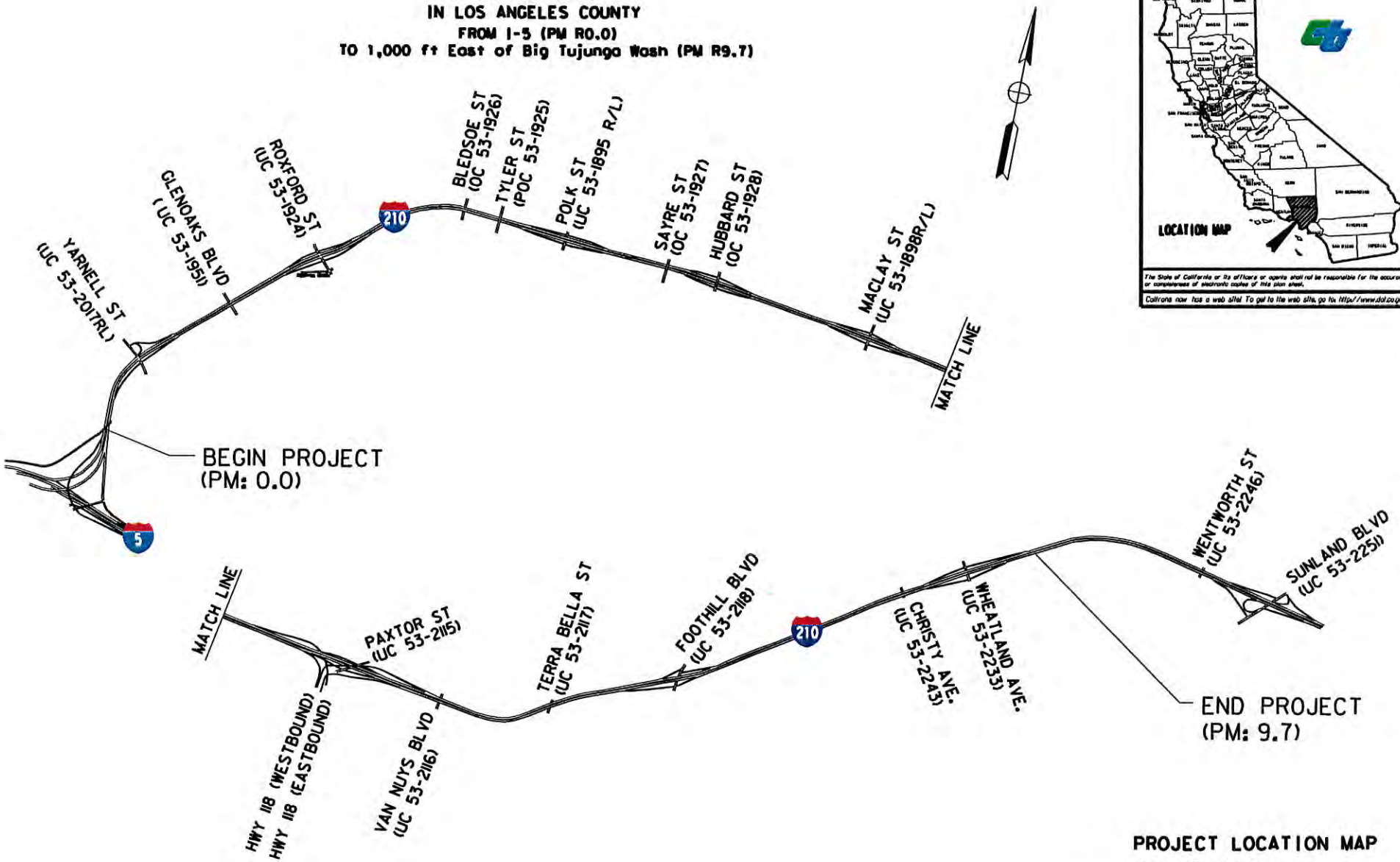
16. ATTACHMENTS

A. Vicinity Map
B. Typical Sections
C. 2R Certification
D. Pavement Condition Survey Inventory
E. Curb Ramp Upgrades (ADA Compliance)
F. Safety Screening
G. Pavement Structural Section Recommendations
H. Life-Cycle Cost Analysis
I. Storm Water Compliance
J. Right of Way Data Sheet
K. Transportation Management Plan Data Sheet
L. Mini Preliminary Environmental Analysis Report
M. Preliminary Cost Estimate
N. Scoping Team Field-Review Attendance Roster
O. SHOPP Project Performance Output
P. Risk Register

VICINITY MAP

ATTACHMENT - A

ROUTE 210
IN LOS ANGELES COUNTY
FROM I-5 (PM R0.0)
TO 1,000 ft East of Big Tujunga Wash (PM R9.7)



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	210	R0.0/R9.7	1	

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov

PROJECT LOCATION MAP
ATTACHMENT A

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER

CALCULATED/ DESIGNED BY

CHECKED BY

DATE	REVISED BY	DATE REVISED

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => %USER
DGN FILE => %REQUEST

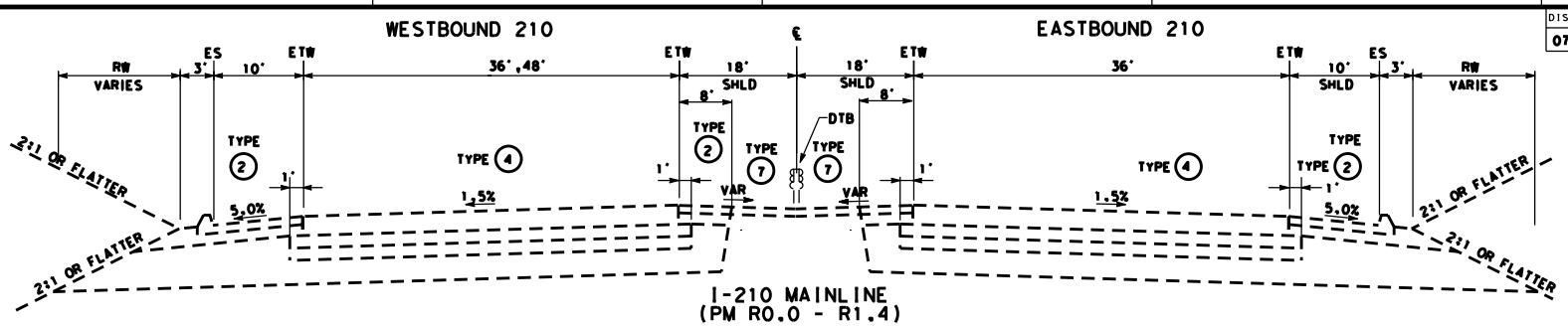
CU 00000

EA 30960K
07-1400-0299

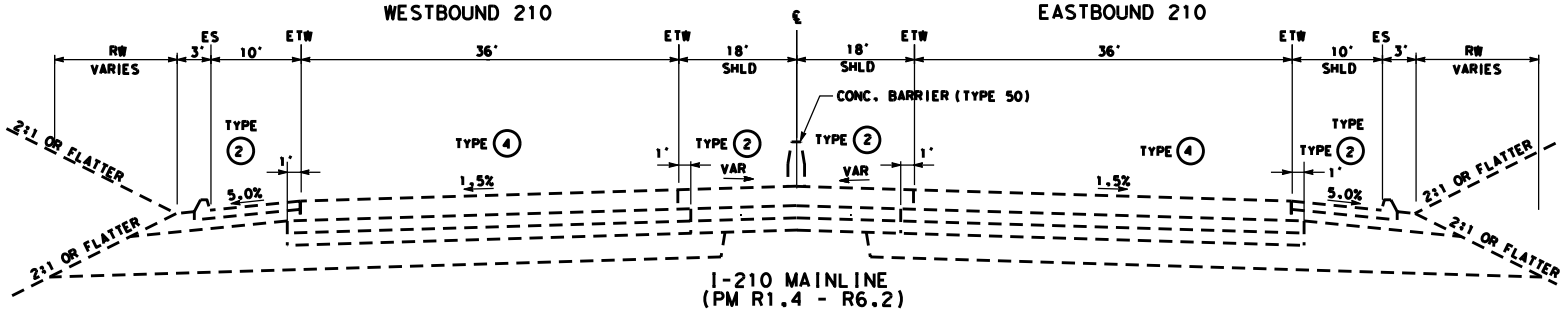
TYPICAL SECTIONS

ATTACHMENT - B

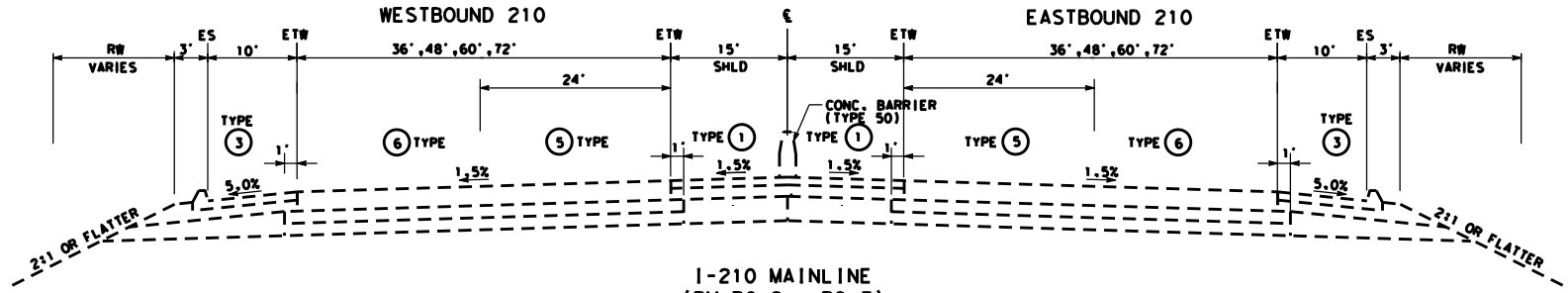
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	210	R0.0/R9.7	1	4



I-210 MAINLINE
(PM R0.0 - R1.4)

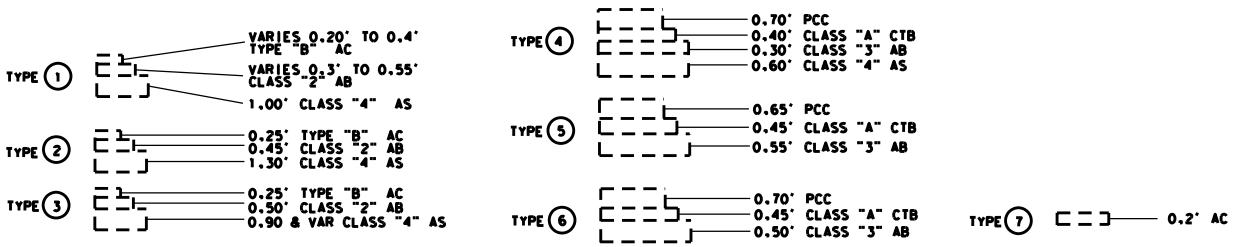


I-210 MAINLINE
(PM R1.4 - R6.2)



I-210 MAINLINE
(PM R6.2 - R9.7)

EXISTING STRUCTURAL SECTIONS



EXISTING TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT STUDIES
PROJECT ENGINEER: KEN YIP
CALCULATED/DESIGNED BY
CHECKED BY
DATE REVISED BY
DATE REVISED

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS (0 20 40 60 80)

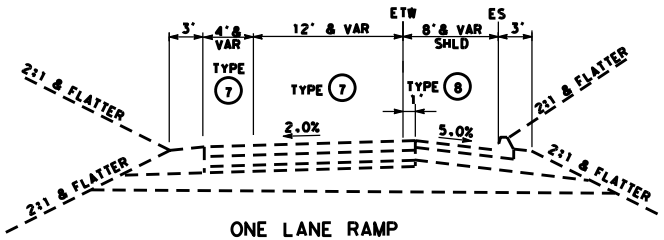
USERNAME => $USER
DGN FILE => $REQUEST

CU 07 186

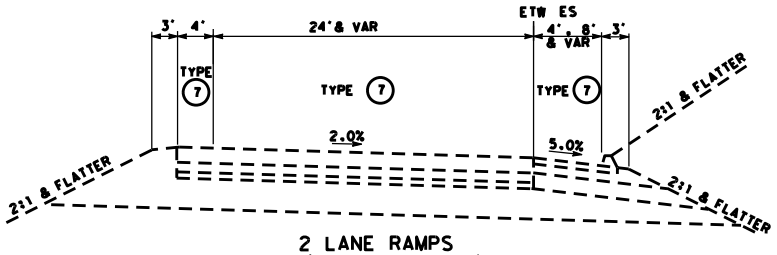
EA 30960K

LAST REVISION
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

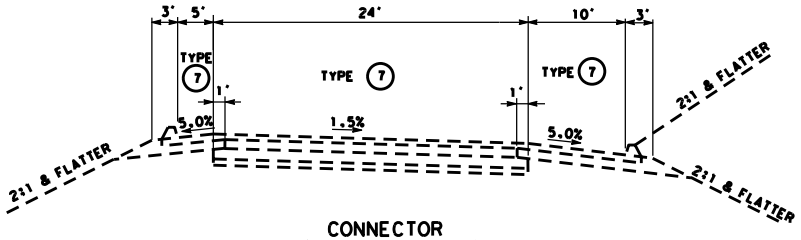
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R0.0/R9.7	2	4



ONE LANE RAMP
(PM 0.0 - 9.7)

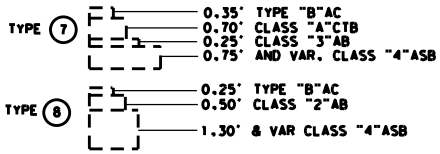


2 LANE RAMPS
(PM 0.0 - 9.7)



CONNECTOR
(PM 5.0 - 6.6)

EXISTING STRUCTURAL SECTIONS



EXISTING TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT STUDIES
PROJECT ENGINEER
KEN YIP
CALCULATED/ DESIGNED BY
CHECKED BY
DATE REVISED BY
DATE REVISED

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

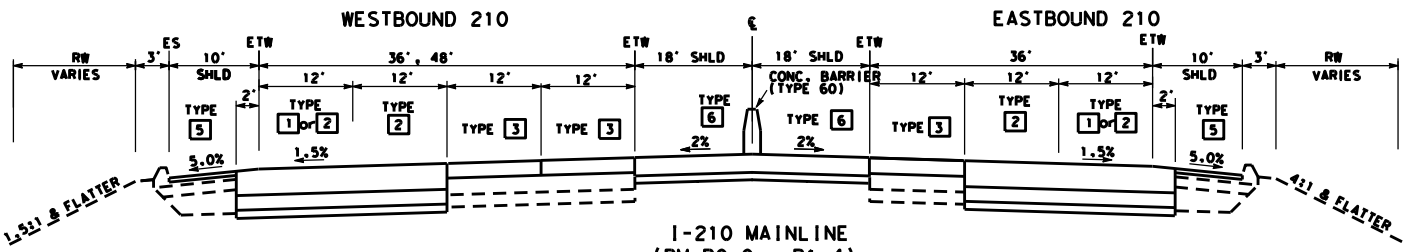
USERNAME => $USER
DGN FILE => $REQUEST

CU 07 186

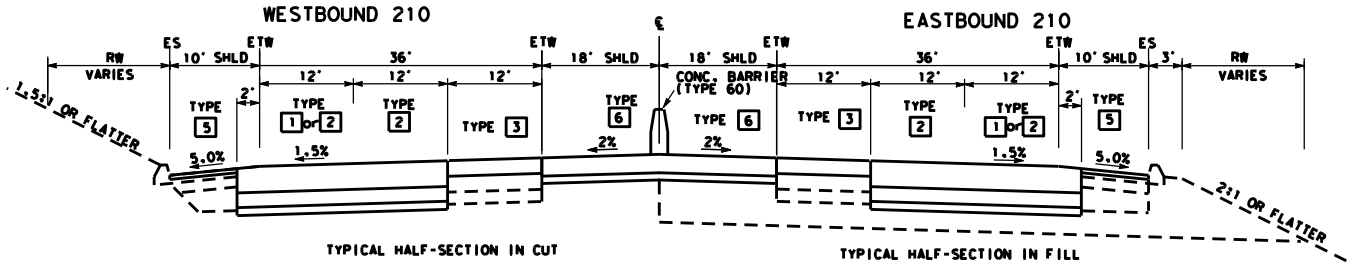
EA 30960K

LAST REVISION
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	210	R0.0/R9.7	3	4



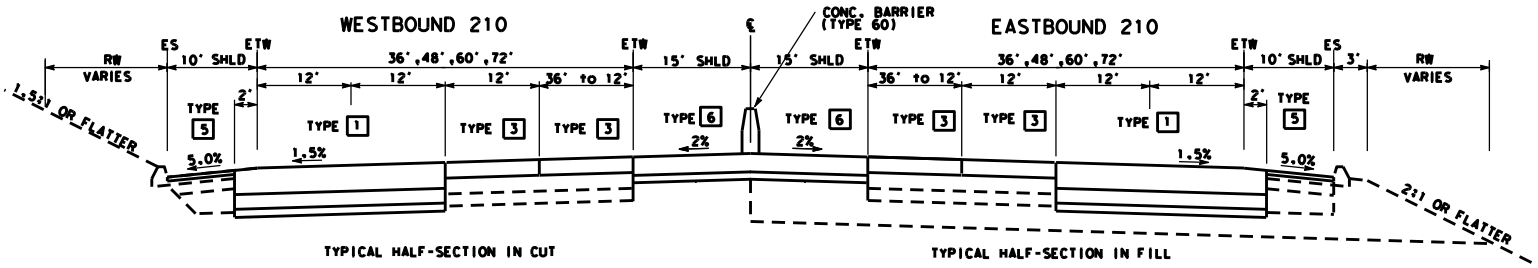
I-210 MAINLINE
(PM R0.0 - R1.4)



TYPICAL HALF-SECTION IN CUT

TYPICAL HALF-SECTION IN FILL

I-210 MAINLINE
(PM R1.4 - R6.2)

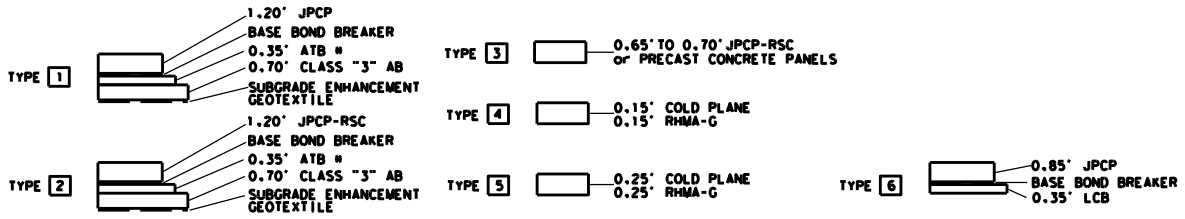


TYPICAL HALF-SECTION IN CUT

TYPICAL HALF-SECTION IN FILL

I-210 MAINLINE

PROPOSED STRUCTURAL SECTIONS
(PM R6.2 - R9.7)



* ALTERNATE TREATED BASE (ATB) INCLUDES: LCB, LCB-RS OR RCC

PROPOSED TYPICAL CROSS SECTIONS
NO SCALE

X-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT STUDIES

PROJECT ENGINEER
KEN YIP

CALCULATED/DESIGNED BY

CHECKED BY

DATE REVISED BY

DATE REVISED

DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

LAST REVISION

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

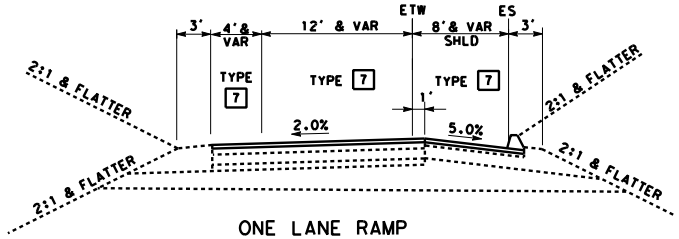
0 20 40 60 80

USERNAME => $USER
DGN FILE => $REQUEST

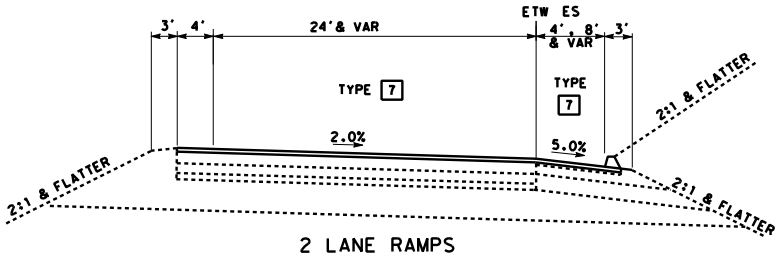
CU 07 186

EA 30960K

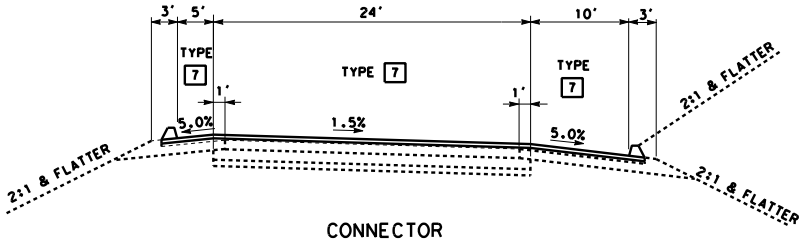
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R0.0/R9.7	4	4



ONE LANE RAMP
(PM R0.0 - R9.7)



2 LANE RAMPS
(PM R0.0 - R9.7)



CONNECTOR
(PM R5.0 - R6.6)

PROPOSED STRUCTURAL SECTIONS
(PM R0.0 -R9.7)

TYPE 7 — 0.15' COLD PLANE
0.15' RHMA - G

EXISTING TYPICAL CROSS SECTIONS
NO SCALE

X-4

DATE	REVISED BY	DATE REVISED
CALCULATED/ DESIGNED BY	CHECKED BY	

PROJECT ENGINEER
KEN YIP

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT STUDIES

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS
0 20 40 60 80

USERNAME => $USER
DGN FILE => $REQUEST

CU

EA 30960K

LAST REVISION
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

2R CERTIFICATION

ATTACHMENT - C

07-LA-210-PM R0.00/PM R9.10
EA: 30960K - EFIS 07-1400-0299

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.

Chief, Office of Traffic Engineering - North — Date: 8-8-14

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.

for K. Dreher
Acting Deputy District Director for Design — Date: 8-8-14

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

Design Coordinator — Date: 8/7/14

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.

District Deputy Director for Maintenance — Date: 8-12-14

District Deputy Director for Operations — Date: 8/14/14

PAVEMENT CONDITION SURVEY INVENTORY

ATTACHMENT - D

Collection Date: / / : : AM
Printed: 01/14/2015

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District		7
County		LA
Route		210
Begin PM	R	0.000

District 7 County LA Route 210

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
R 0.000 - R 0.033		**0.033**	**0.033**		**0.231**	**MLD**		**76**	**1**						
L1	B											41 215	0		N/A - Bridge
L2	B											6 125	0		N/A - Bridge
L3	B											28 181	0		N/A - Bridge
R1	B											27 180	0		N/A - Bridge
R2	B											27 180	0		N/A - Bridge
R3	B											44 223	0		N/A - Bridge
R 0.033 - R 0.050		**0.017**			**0.119**	**MLD**		**76**	**1**						
L3	R					12	6	5				N/A	32		SLAB CRACKING
R3	B											N/A	0		N/A - Bridge
R 0.050 - R 0.425		**0.375**			**2.625**	**MLD**		**76**	**1**						
L1	R											5 104	98		GOOD CONDITION
L2	R											5 84	98		GOOD CONDITION
L3	R					12	6	5				7 128	32		SLAB CRACKING
R1	R											5 122	98		GOOD CONDITION
R2	R											5 104	98		GOOD CONDITION
R3	R					36	4	7				5 118	31		SLAB CRACKING
R 0.425 - R 0.432		**0.007**			**0.056**	**MLD**		**76**	**1**						
L3	B											N/A	0		N/A - Bridge
R3	R					36	4	7				N/A	31		SLAB CRACKING
R 0.432 - R 0.473		**0.041**			**0.328**	**MLD**		**76**	**1**						
L3	B											N/A	0		N/A - Bridge
R3	B											28 182	0		N/A - Bridge
R 0.473 - R 0.486		**0.013**			**0.104**	**MLD**		**76**	**1**						
L3	R					12	6	5				N/A	32		SLAB CRACKING
R3	B											N/A	0		N/A - Bridge
R 0.486 - R 0.843		**0.357**			**2.856**	**MLD**		**76**	**1**						
L1	R											5 99	98		GOOD CONDITION
L2	R											5 96	98		GOOD CONDITION

*Surface type of 'EB' is Enhanced Binder.

Collection Date: 02/17/2012
Printed: 01/14/2015

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District		7
County		LA
Route		210
Begin PM	R	0.486

District 7 County LA Route 210

Begin PM - End PM		Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
R 0.843	**- R 0.870**	**0.027**	**0.189**	**MLD**	**74**	**1**
R 0.870	**- R 1.000**	**0.130**	**0.780**	**MLD**	**74**	**1**
R 1.000	**- R 1.397**	**0.397**	**2.382**	**MLD**	**74**	**1**
R 1.397	**- R 1.422**	**0.025**	**0.150**	**MLD**	**74**	**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
L3	R					12	6	5				5 118	32		SLAB CRACKING
R1	R											5 102	98		GOOD CONDITION
R2	R											5 101	98		GOOD CONDITION
R3	R					36	4	7	Faulting			8 129	9		FAULTING
L3	B											N/A	0		N/A - Bridge
R3	B											19 159	0		N/A - Bridge
L1	R											5 69	98		GOOD CONDITION
L2	R											5 89	98		GOOD CONDITION
L3	R					12	6	5				5 73	32		SLAB CRACKING
R1	R											5 87	98		GOOD CONDITION
R2	R											5 85	98		GOOD CONDITION
R3	R					36	4	7				5 122	31		SLAB CRACKING
L1	R											5 76	98		GOOD CONDITION
L2	R											5 86	98		GOOD CONDITION
L3	R					26	2	5				5 83	31		SLAB CRACKING
R1	R											5 78	98		GOOD CONDITION
R2	R											5 87	98		GOOD CONDITION
R3	R					23	1	4				5 88	31		SLAB CRACKING
L1	B											5 109	0		N/A - Bridge
L2	B											5 111	0		N/A - Bridge
L3	B											5 98	0		N/A - Bridge
R1	B											5 110	0		N/A - Bridge
R2	B											5 117	0		N/A - Bridge
R3	B											5 118	0		N/A - Bridge

*Surface type of 'EB' is Enhanced Binder.

Collection Date: / / : : AM
Printed: 01/14/2015

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District	7
County	LA
Route	210
Begin PM	R 1.422

District 7 County LA Route 210

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
R 1.422	**- R 1.924**		**0.502**	**3.012**	**MLD**		**74**		**1**							
L1	R											5	94	98		GOOD CONDITION
L2	R											5	103	98		GOOD CONDITION
L3	R					26	2	5				5	95	31		SLAB CRACKING
R1	R											5	98	98		GOOD CONDITION
R2	R											5	87	98		GOOD CONDITION
R3	R					23	1	4				5	83	31		SLAB CRACKING
R 1.924	**- R 1.953**		**0.029**	**0.174**	**MLD**		**74**		**1**							
L3	B												N/A	0		N/A - Bridge
R3	B												N/A	0		N/A - Bridge
R 1.953	**- R 2.000**		**0.047**	**0.282**	**MLD**		**74**		**1**							
L3	R					26	2	5					N/A	31		SLAB CRACKING
R3	R					23	1	4				5	93	31		SLAB CRACKING
R 2.000	**- R 3.000**		**1.000**	**6.000**	**MLD**		**74**		**1**							
L1	R											5	74	98		GOOD CONDITION
L2	R											5	82	98		GOOD CONDITION
L3	R					8	0	1				5	88	32		SLAB CRACKING
R1	R											5	67	98		GOOD CONDITION
R2	R											5	72	98		GOOD CONDITION
R3	R					28	2	6				5	75	31		SLAB CRACKING
R 3.000	**- R 3.275**		**0.275**	**1.650**	**MLD**		**74**		**1**							
L1	R											5	87	98		GOOD CONDITION
L2	R											5	99	98		GOOD CONDITION
L3	R					12	3	1				5	98	31		SLAB CRACKING
R1	R											5	77	98		GOOD CONDITION
R2	R											5	78	98		GOOD CONDITION
R3	R					17	0	2				5	78	32		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Collection Date: 02/17/2012
Printed: 01/14/2015

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District	7
County	LA
Route	210
Begin PM R	3.275

District 7 County LA Route 210

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
R 3.275 - R 3.303			**0.028**		**0.168**	**MLD**		**85**	**1**						
L3	B											N/A	0		N/A - Bridge
R1	B											5 90	0		N/A - Bridge
R2	B											5 102	0		N/A - Bridge
R3	B											5 102	0		N/A - Bridge
R 3.303 - R 4.000			**0.697**		**4.182**	**MLD**		**85**	**1**						
L1	R											5 69	98		GOOD CONDITION
L2	R											5 75	98		GOOD CONDITION
L3	R					12	3	1				5 93	31		SLAB CRACKING
R1	R											5 74	98		GOOD CONDITION
R2	R											5 82	98		GOOD CONDITION
R3	R					17	0	2				5 78	32		SLAB CRACKING
R 4.000 - R 4.792			**0.792**		**4.752**	**MLD**		**105**	**1**						
L1	R											5 73	98		GOOD CONDITION
L2	R											5 86	98		GOOD CONDITION
L3	R					10	0	1				5 91	32		SLAB CRACKING
R1	R											5 73	98		GOOD CONDITION
R2	R											5 76	98		GOOD CONDITION
R3	R					14	0	1				5 74	32		SLAB CRACKING
R 4.792 - R 4.936			**0.144**		**0.864**	**MLD**		**105**	**1**						
L1	R											5 108	98		GOOD CONDITION
L2	R											5 112	98		GOOD CONDITION
L3	R					10	0	1				5 99	32		SLAB CRACKING
R1	R											5 93	98		GOOD CONDITION
R2	R											5 101	98		GOOD CONDITION
R3	R					14	0	1				5 106	32		SLAB CRACKING
R 4.936 - R 4.964			**0.028**		**0.196**	**MLD**		**121**	**1**						
L3	B											N/A	0		N/A - Bridge
R3	B											N/A	0		N/A - Bridge

*Surface type of 'EB' is Enhanced Binder.

Collection Date: 02/17/2012
Printed: 01/14/2015

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District		7
County		LA
Route		210
Begin PM	R	4.964

District 7 County LA Route 210

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
R 4.964	**- R 5.000**				**0.036**	**0.252**	**MLD**	**121**		**1**						
L3	R						10	0	1				N/A	32		SLAB CRACKING
R3	R						14	0	1				N/A	32		SLAB CRACKING
R 5.000	**- R 5.141**				**0.141**	**0.987**	**MLD**	**121**		**1**						
L1	R											5	101	98		GOOD CONDITION
L2	R											5	111	98		GOOD CONDITION
L3	R						3	0	2			5	113	32		SLAB CRACKING
R1	R											5	115	98		GOOD CONDITION
R2	R											5	115	98		GOOD CONDITION
R3	R						11	0	5			5	106	32		SLAB CRACKING
R 5.141	**- R 5.174**				**0.033**	**0.264**	**MLD**	**121**		**1**						
L3	B												N/A	0		N/A - Bridge
R3	B												N/A	0		N/A - Bridge
R 5.174	**- R 5.464**				**0.290**	**2.320**	**MLD**	**121**		**1**						
L1	R											5	92	98		GOOD CONDITION
L2	R											5	99	98		GOOD CONDITION
L3	R						3	0	2			5	98	32		SLAB CRACKING
R1	R											5	86	98		GOOD CONDITION
R2	R											5	84	98		GOOD CONDITION
R3	R						11	0	5			5	92	32		SLAB CRACKING
R 5.464	**- R 5.485**				**0.021**	**0.168**	**MLD**	**121**		**1**						
L3	B												N/A	0		N/A - Bridge
R3	B												N/A	0		N/A - Bridge
R 5.485	**- R 6.000**				**0.515**	**3.605**	**MLD**	**121**		**1**						
L1	R											5	89	98		GOOD CONDITION
L2	R											5	95	98		GOOD CONDITION
L3	R						3	0	2			5	110	32		SLAB CRACKING
R1	R											5	88	98		GOOD CONDITION
R2	R											5	87	98		GOOD CONDITION
R3	R						11	0	5			5	81	32		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Collection Date: 02/17/2012
Printed: 01/14/2015

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District	7
County	LA
Route	210
Begin PM	R 6.000

District 7 County LA Route 210

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
R 6.000 - R 6.012			**0.012**	**0.072**	**MLD**	**115**		**1**							
L3	R					3	0	2				N/A	32		SLAB CRACKING
R1	R											21 163	98		GOOD CONDITION
R2	R											17 154	98		GOOD CONDITION
R3	R					6	0	0				11 138	33		UNSEALED CRACKS OR
R 6.012 - R 6.045			**0.033**	**0.198**	**MLD**	**115**		**1**							
L1	B											20 161	0		N/A - Bridge
L2	B											29 185	0		N/A - Bridge
L3	B											20 160	0		N/A - Bridge
R3	B											7 128	0		N/A - Bridge
R 6.045 - R 6.116			**0.071**	**0.426**	**MLD**	**115**		**1**							
L3	R					3	0	2				13 144	32		SLAB CRACKING
R1	R											16 150	98		GOOD CONDITION
R2	R											5 114	98		GOOD CONDITION
R3	R					6	0	0				5 82	33		UNSEALED CRACKS OR
R 6.116 - R 6.555			**0.439**	**3.073**	**MLD**	**115**		**1**							
L1	R											17 154	98		GOOD CONDITION
L2	R											18 156	98		GOOD CONDITION
L3	R											13 143	98		GOOD CONDITION
L4	R					11	0	0				5 117	33		UNSEALED CRACKS OR
R1	R											24 172	5		RIDE
R2	R											9 133	98		GOOD CONDITION
R3	R					6	0	0				5 92	33		UNSEALED CRACKS OR
R 6.555 - R 6.583			**0.028**	**0.280**	**MLD**	**115**		**1**							
L4	B											5 78	0		N/A - Bridge
R3	B											N/A	0		N/A - Bridge
R 6.583 - R 6.756			**0.173**	**1.730**	**MLD**	**115**		**1**							
L1	R											54 251	5		RIDE
L2	R											50 240	5		RIDE
L3	R											45 227	5		RIDE

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District 7 County LA Route 210

Begin PM		End PM		Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
R 6.756	- R	7.000		0.244	2.440	MLD	115	1
R 7.000	- R	7.159		0.159	1.431	MLD	115	1
R 7.159	- R	7.193		0.034	0.272	MLD	115	1
R 7.193	- R	7.822		0.629	5.032	MLD	115	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
L4	R					11	0	0				5	91	33		UNSEALED CRACKS OR
R1	R											32	192	5		RIDE
R2	R											17	152	98		GOOD CONDITION
R3	R					6	0	0				17	154	33		UNSEALED CRACKS OR
L1	R											57	259	5		RIDE
L2	R											57	259	5		RIDE
L3	R											37	206	5		RIDE
L4	R					11	0	0				33	194	5		RIDE
R1	R											26	176	5		RIDE
R2	R											24	172	5		RIDE
R3	R											5	96	98		GOOD CONDITION
R4	R					24	0	0				5	111	33		UNSEALED CRACKS OR
L1	R											49	238	5		RIDE
L2	R											48	234	5		RIDE
L3	R											60	266	5		RIDE
L4	R					26	2	0					N/A	33		UNSEALED CRACKS OR
R1	R											33	195	5		RIDE
R2	R											37	205	5		RIDE
R3	R											5	120	98		GOOD CONDITION
R4	R					24	0	0	Faulting			32	193	3		FAULTING, RIDE
L4	B												N/A	0		N/A - Bridge
R4	B												N/A	0		N/A - Bridge
L1	R											53	247	5		RIDE
L2	R											53	247	5		RIDE
L3	R											50	241	5		RIDE
L4	R					26	2	0					N/A	33		UNSEALED CRACKS OR

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District 7 County LA Route 210

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
R 7.822 - R 7.862	0.040	0.320	MLD	113	1
R 7.862 - R 8.000	0.138	1.104	MLD	113	1
R 8.000 - R 8.276	0.276	2.208	MLD	113	1

Begin PM - End PM	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
	R1	R											36 202	5		RIDE
	R2	R											31 191	5		RIDE
	R3	R											41 216	5		RIDE
	R4	R					24	0	0	Faulting			41 217	3		FAULTING, RIDE
	L1	B											25 173	0		N/A - Bridge
	L2	B											26 176	0		N/A - Bridge
	L3	B											11 138	0		N/A - Bridge
	L4	B											27 180	0		N/A - Bridge
	R1	B											29 186	0		N/A - Bridge
	R2	B											26 178	0		N/A - Bridge
	R3	B											17 154	0		N/A - Bridge
	R4	B											26 178	0		N/A - Bridge
	L1	R											35 201	5		RIDE
	L2	R											29 184	5		RIDE
	L3	R											5 106	98		GOOD CONDITION
	L4	R					26	2	0				6 124	33		UNSEALED CRACKS OR
	R1	R											27 180	5		RIDE
	R2	R											13 144	98		GOOD CONDITION
	R3	R											10 135	98		GOOD CONDITION
	R4	R					24	0	0				16 150	33		UNSEALED CRACKS OR
	L1	R											36 204	5		RIDE
	L2	R											32 192	5		RIDE
	L3	R											15 149	98		GOOD CONDITION
	L4	R					51	2	0				12 141	33		UNSEALED CRACKS OR
	R1	R											31 191	5		RIDE
	R2	R											26 178	5		RIDE
	R3	R											24 172	5		RIDE

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District 7 County LA Route 210

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
R 8.276 - R 8.307	0.031	0.248	MLD	113	1
R 8.307 - R 8.553	0.246	1.968	MLD	113	1
R 8.553 - R 8.573	0.020	0.160	MLD	113	1
R 8.573 - R 8.787	0.214	1.712	MLD	113	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
R4	R					0	0	0				23 170	33		UNSEALED CRACKS OR
L1	B											36 203	0		N/A - Bridge
L2	B											29 186	0		N/A - Bridge
L3	B											16 150	0		N/A - Bridge
L4	B											11 137	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
L1	R											34 197	5		RIDE
L2	R											20 161	98		GOOD CONDITION
L3	R											10 136	98		GOOD CONDITION
L4	R					51	2	0				5 120	33		UNSEALED CRACKS OR
R1	R											41 215	5		RIDE
R2	R											34 197	5		RIDE
R3	R											32 193	5		RIDE
R4	R					0	0	0				52 244	5		RIDE
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
L1	R											31 190	5		RIDE
L2	R											24 171	5		RIDE
L3	R											10 136	98		GOOD CONDITION
L4	R					51	2	0				5 122	33		UNSEALED CRACKS OR
R1	R											41 216	5		RIDE
R2	R											30 187	5		RIDE
R3	R											28 183	5		RIDE
R4	R					0	0	0	Faulting			29 186	3		FAULTING, RIDE

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District 7 County LA Route 210

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
R 8.787 - R 9.000			**0.213**	**1.704**	**MLD**		**113**		**1**						
L1	R											38 207	5		RIDE
L2	R											29 184	5		RIDE
L3	R											15 147	98		GOOD CONDITION
L4	R					43	14	0	Faulting			15 147	7		THIRD ST.CRKNG
R1	R											46 228	5		RIDE
R2	R											39 211	5		RIDE
R3	R											32 193	5		RIDE
R4	R					0	0	0				46 229	5		RIDE
R 9.000 - R 9.084			**0.084**	**0.672**	**MLD**		**113**		**1**						
L4	R					43	14	0				N/A	7		THIRD ST.CRKNG
R1	R											55 254	5		RIDE
R2	R											48 235	5		RIDE
R3	R											44 224	5		RIDE
R4	R					52	2	1				38 207	5		RIDE
R 9.084 - R 9.109			**0.025**	**0.200**	**MLD**		**113**		**1**						
L1	B											42 219	0		N/A - Bridge
L2	B											25 174	0		N/A - Bridge
L3	B											17 153	0		N/A - Bridge
L4	B											17 154	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
R 9.109 - R 9.433			**0.324**	**2.592**	**MLD**		**113**		**1**						
L1	R											39 210	5		RIDE
L2	R											25 174	5		RIDE
L3	R											14 145	98		GOOD CONDITION
L4	R					43	14	0				5 120	7		THIRD ST.CRKNG
R1	R											51 243	5		RIDE
R2	R											49 236	5		RIDE
R3	R											40 214	5		RIDE
R4	R					52	2	1				18 155	31		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

Caltrans Maintenance Program
2011 Pavement Condition Survey Inventory
Caltrans Drive Order

District 7, LA, Rte 210, PM 0.0 - 9.7

District 7 County LA Route 210

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
R 9.433 - R 9.455		**0.022**			**0.176**	**MLD**	**113**	**1**							
L4	B											N/A	0		N/A - Bridge
R4	B											N/A	0		N/A - Bridge
R 9.455 - R 9.886		**0.431**			**3.448**	**MLD**	**113**	**1**							
L1	R											31 190	5		RIDE
L2	R											20 161	98		GOOD CONDITION
L3	R											9 132	98		GOOD CONDITION
L4	R					43	14	0				8 131	7		THIRD ST.CRKNG
R1	R											35 200	5		RIDE
R2	R											29 186	5		RIDE
R3	R											18 156	98		GOOD CONDITION
R4	R					52	2	1				5 80	31		SLAB CRACKING

*Surface type of 'EB' is Enhanced Binder.

CURB RAMP UPGRADES
(ADA COMPLIANCE)

ATTACHMENT - E

The curb ramp locations with the project limits were evaluated and subsequently categorized into two (2) groups based on the feasibility and constructability for ADA curb ramp upgrades:

Group I (G1) sites include locations that are relatively straightforward curb ramp installation with no adjustment or relocation of existing sidewalk appurtenances (i.e. pull box, street lights, etc.).

Group II (G2) sites include locations that are relatively straightforward curb ramp installation with minimal adjustment or relocation of existing sidewalk appurtenances (i.e. pull box, street lights, etc.).

Sumary of ADA curb ramp locations									07-LA-210-PM R0.0/R9.7
Location				Meets ADA Std	Group		Modification Needed to Meet Standard	Cross Walk	Additonal Modification Needed to Meet Standard
					G1	G2			
1	Yarnell St	EB	Off (Rt)	No	X		Reconstruct curb ramp	3.3%	
2	Yarnell St	EB	Off (Lt)	No	X		Reconstruct curb ramp		
3	Yarnell St	EB	On (Rt)	No	X		Reconstruct curb ramp		
4	Yarnell St	EB	On (Lt)	No	X		Reconstruct curb ramp		
5	Yarnell St	WB	On (Rt)	Yes			Install Raised Truncated Dome	3.5%	
6	Yarnell St	WB	Off (Lt)	No	X		Reconstruct curb ramp		
7	Roxford St	EB	Off (Rt)	No			Reconstruct curb ramp	3.5%	
8	Roxford St	EB	Off (Lt)	No	X		Reconstruct curb ramp		
9	Roxford St	EB	On (Rt)	No	X		Reconstruct curb ramp		
10	Roxford St	EB	On (Lt)	Yes			Install Raised Truncated Dome		
11	Roxford St	WB	On (Rt)	No	X		Reconstruct curb ramp		
12	Roxford St	WB	On (Lt)	Yes			Install Raised Truncated Dome		
13	Roxford St	WB	Off (Rt)	No	X		Reconstruct curb ramp	5.0%	
14	Roxford St	WB	Off (Lt)	Yes			Install Raised Truncated Dome		
15	Polk St	EB	Off (Rt)	No	X		Reconstruct curb ramp	1.5%	Construct sidewalk (4' x 30')
16	Polk St	EB	Off (Lt)	No	X		Reconstruct curb ramp		
17	Polk St	EB	On (Rt)	No	X		Reconstruct curb ramp		
18	Polk St	EB	On (Lt)	No	X		Reconstruct curb ramp		
19	Polk St	WB	On (Rt)	No	X		Reconstruct curb ramp		
20	Polk St	WB	On (Lt)	Yes			Install Raised Truncated Dome		
21	Polk St	WB	Off (Rt)	No	X		Reconstruct curb ramp	1.6%	
22	Polk St	WB	Off (Lt)	No	X		Reconstruct curb ramp		
23	Hubbard St	EB	Off (Rt)	No	X		Reconstruct curb ramp	1.6%	
24	Hubbard St	EB	Off (Lt)	No	X		Reconstruct curb ramp		
25	Hubbard St	EB	On (Rt)	No	X		Reconstruct curb ramp		
26	Hubbard St	EB	On (Lt)	No	X		Reconstruct curb ramp		
27	Hubbard St	WB	On (Rt)	No	X		Reconstruct curb ramp		
28	Hubbard St	WB	On (Lt)	No	X		Reconstruct curb ramp		
29	Hubbard St	WB	Off (Rt)	No	X		Reconstruct curb ramp	0.8%	
30	Hubbard St	WB	Off (Lt)	No	X		Reconstruct curb ramp		
31	Maclay St	EB	Off (Rt)	No	X		Reconstruct curb ramp	0.3%	
32	Maclay St	EB	Off (Lt)	No	X		Reconstruct curb ramp		
33	Maclay St	EB	On (Rt)	No	X		Reconstruct curb ramp		
34	Maclay St	EB	On (Lt)	No	X		Reconstruct curb ramp		
35	Maclay St	WB	On (Rt)	No	X		Reconstruct curb ramp		
36	Maclay St	WB	On (Lt)	No	X		Reconstruct curb ramp		
37	Maclay St	WB	Off (Rt)	No	X		Reconstruct curb ramp	1.1%	
38	Maclay St	WB	Off (Lt)	No	X		Reconstruct curb ramp		
39	Paxton St	EB	Off (Rt)	No	X		Reconstruct curb ramp	0.3%	
40	Paxton St	EB	Off (Lt)	No	X		Reconstruct curb ramp		
41	Paxton St	EB	On (Rt)	No	X		Reconstruct curb ramp		
42	Paxton St	EB	On (Lt)	No	X		Reconstruct curb ramp		
43	Paxton St	WB	On (Rt)	NA					
44	Paxton St	WB	On (Lt)	No	X		Construct new curb ramp		
45	Paxton St	WB	Off (Rt)	No	X		Construct new curb ramp	1.9%	
46	Paxton St	WB	Off (Lt)	Yes			Install Raised Truncated Dome		
47	Foothill Blvd	EB	Off (Rt)	No	X		Construct new curb ramp	1.6%	
48	Foothill Blvd	EB	Off (Lt)	No	X		Construct new curb ramp		
49	Foothill Blvd	EB	On (Rt)	No	X		Construct new curb ramp		
50	Foothill Blvd	EB	On (Lt)	No	X		Construct new curb ramp		
51	Foothill Blvd	WB	On (Rt)	No	X		Construct new curb ramp		
52	Foothill Blvd	WB	On (Lt)	No	X		Construct new curb ramp		
53	Foothill Blvd	WB	Off (Rt)	No	X		Construct new curb ramp	1.4%	
54	Foothill Blvd	WB	Off (Lt)	No	X		Construct new curb ramp		
55	Wheatland Ave	EB	Off (Rt)	No	X		Construct new curb ramp	0.3%	
56	Wheatland Ave	EB	Off (Lt)	No	X		Construct new curb ramp		
57	Wheatland Ave	EB	On (Rt)	No	X		Construct new curb ramp		
58	Wheatland Ave	EB	On (Lt)	No	X		Construct new curb ramp		
59	Wheatland Ave	WB	On (Rt)	No	X		Construct new curb ramp		
60	Wheatland Ave	WB	On (Lt)	No	X		Construct new curb ramp		
61	Wheatland Ave	WB	Off (Rt)	No	X		Construct new curb ramp	4.0%	
62	Wheatland Ave	WB	Off (Lt)	No	X		Construct new curb ramp		
				Total =	54	0			

SAFETY SCREENING

ATTACHMENT - F

INTRODUCTION

A safety screening includes a review of traffic data, pavement conditions, field reviews, and other relevant information. The Office of Maintenance Engineering, District SHOPP Pavement Program has identified this segment of I-210 (from Jct. I-5 to Christy Ave. U.C.), in Los Angeles County, as a proposed pavement rehabilitation project location. The safety screening process is used to determine if the highway segment in question qualifies as a 2R or 3R project in accordance with Design Information Bulletin 79. 2R projects are to be programmed as "pavement-focused" projects, in which the primary goal is to extend the service life of the identified pavement structure, while 3R projects, besides extending the service life of the pavement structure, also replace and upgrade other highway appurtenances and facilities within the project limits that are failing, worn out, or functionally obsolete.

EXISTING FACILITY

The Foothill Freeway (I-210) is a major east-west route that originates at the junction with Interstate Route 5 (I-5) in the City of Los Angeles and extends to the junction with Interstate Route 10 (I-10) near Redlands east of San Bernardino. I-210 is an important transportation corridor for both commuters and goods movement between Los Angeles and San Bernardino Counties. The segment of I-210 covered by this safety screening begins from junction of I-5 (PM R0.0) and ends at Christy Avenue (PM R9.10) in the City of Los Angeles. The traveled way consists of four or five 12-foot concrete mixed-flow lanes and asphalt-concrete median and right shoulders in each direction. The speed limit is 65 mph. A concrete median barrier separates eastbound and westbound traffic. There are metal beam guard rails, sound walls, and concrete barriers along the right shoulder in each direction of traffic.

2R SAFETY SCREEN 1.0

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

TABLE 1
ROUTE 210 P.M. R0.00/R9.10
(MAINLINE+ RAMP) ACCIDENT RATES FOR THREE-YEAR PERIOD
(04-01-2009 to 03-31-2012)

Post Mile	Direction	No. of Accidents			Actual (acc/mvm)			Average (acc/mvm)		
		Total (Mainline only)	Fat	Inj	Fatal	F+I	Total	Fatal	F+I	Total
R0.0/R9.10	EB	134	0	32	0.000	0.07	0.28	0.003	0.21	0.67
R0.0/R9.10	WB	227	0	82	0.000	0.17	0.47	0.003	0.21	0.67

See Attachment 4

Analysis: Actual F+I accident rates of 0.11 acc/mvm for eastbound Route 210 and 0.20 acc/mvm for westbound Route 210 are below both the statewide average of 0.21 acc/mvm and absolute value of 0.35 acc/mvm for this screening criteria. 0.07 & 0.17< 0.21<0.35

Result: *Pass*

2R SAFETY SCREEN 2.0

Safety Screen 2.0 addresses collisions related to roadway widths on 2 and 3 lane conventional highways where shoulder widths are less than standard per DIB 79. Since the proposed project is on a freeway with four or five lanes in each direction, this safety screen does not apply.

Result: *Not Applicable*

2R SAFETY SCREEN 3.0

Criteria: For this screen, District Traffic Safety unit performs a safety analysis to determine if there are other issues that would indicate that general geometric improvements are needed based on the following questions.

3.1 Are there other safety issues that would indicate general geometric improvements are needed?

3.2 Are there cost-effective geometric improvements at spot locations that should be included in the project?

Analysis: To assess this part of screening we have conducted a field review of the highway segment in question (LA-210, PM R0.0/R9.10). We have reviewed and analyzed both Table C "ALL" and Table C "WET" for past 3 years from 04/01/2009 to 03/31/2012, and during this period no Table C location was identified for mainline on this segment of highway.

- No mainline Table C-All or Wet were generated during 04/01/09 to 03/31/12 on EB &WB I-210 between Junction of Route 5 (P.M. R0.0) to Christy Avenue (P.M. R9.10)

- Result: *Passes both 3.1 and 3.2*

2R SAFETY SCREEN 4.0

Criteria: Safety Screen 4.0 addresses pedestrian and bicycle needs on this project.

Analysis: This safety screen does not apply to the mainline I-210 Freeway segment that falls within the project limits. The project does recommend ADA-compliant curb ramp and bicycle friendly gates where ramps terminate with local streets.

Result: *Pass*

CONCLUSIONS AND RECOMMENDATIONS

This project passes the requirements for a 2R project per Design Information Bulletin 79.

Recommendations for improvements within the screen limits are listed below:

- Upgrade all freeway sign lighting fixtures with energy-efficient LED or inductive lighting systems to improve reliability of the systems.
- Upgrade all highway lighting systems, including installing new conduit and theft- resistant pull boxes to improve system reliability. This includes the entire Route 5/210 interchange and Route 118/210 interchange.
- Replace roadside signs with a new signs where needed.
- All new metal beam guard rail should conform to the new Midwest Guard Rail System standard height of 31 inches. Consider reconstructing any existing MBGR that does not meet the new standard height of 31 inches. Also, lengthen flares to current standard.
- Upgrade the sign structures to meet current Cal/OSHA safety standards for handrail and worker safety devices per the memorandum, "Overhead Sign Structures/Signal and Lighting Standard policy," dated April 22, 2005 (revised August 5, 2005), from Richard D. Land, Chief Engineer, and Lawrence H. Orcutt, Acting Deputy Director, Maintenance and Operations.
- On EB 210 three steel box beam sign bridges and six cantilever box beam sign structures should be replaced.
- On the WB 210, three box beam sign bridges and seven cantilever box beam sign structures should be replaced.
- Those metal beam guard rail flares that do not conform to current standards should be reconstructed. This includes approach railing for Type 9 bridge rail.
- Detail 13 (Mod) lane lines installed on freshly grinded concrete pavement should include contrast treatment to improve visibility. Install high night-time visibility thermoplastic stripe.
- Upgrade disabled access ramps at ramp termini to current ADA standard.
- Replace all Type G and Type F delineators at all on and off-ramps. Where they are missing, install at 200 feet intervals on tangent, and variable spacing at curves.
- Install Type F delineators on right shoulder of mainline at 0.1 mile intervals on tangent, and variable spacing at curves depending on the radius.
- Consider installing approximately 400 LF of metal beam guard rail along right shoulder of westbound I-210 beginning at the end of Yarnell St. U.C.

TRAFFIC SAFETY CONTACT

Call Ken Hatai at (213) 897-4655

Mahmoud Hajjar at (213) 897-8285

ATTACHMENTS:

No. 1: Table C-All & Wet (potential Investigation Locations for mainline) for EB & WB LA-210 PM R0.0/R9.10 from 04/01/2009 to 03/31/2012.

No. 2: TSAR-Accident Summary for mainline WB LA-210 PM R0.00/R9.10 from 04/01/2009 to 03/31/2012.

No. 3: TSAR- Accident Summary for mainline EB LA-210 PM R0.00/R9.10 from 04/01/2009 to 03/31/2012.

No. 4: Table B for LA-210 PM R0.00/R9.10 (mainline EB & WB) from 04/01/2009 to 03/31/2012. (See Table 1)

No. 5: Fact Sheet for EA 3Y620 (Treat Decks and Replace Seals PM R0.0/R24.4).

No. 6: Fact sheet for EA 29090 (Salvage MBGR Install Concrete Barrier PM R6.8/R7.2)

No. 7: List of ON & OFF Ramps within the subject project.

INTRODUCTION

The safety screening process is used to determine if the highway segment in question qualifies as a 2R or 3R project in accordance with Design Information Bulletin 79. A safety screening includes a review of traffic data, pavement conditions, field reviews, and other relevant information. The Office of Maintenance Engineering, District SHOPP Pavement Program identified the segment of the I-210 Freeway from Jct. I-5 (P.M. R0.00) to Christy Avenue U.C. (P.M. R9.08) in Los Angeles County as a proposed pavement rehabilitation project location. The I-210 Freeway mainline was previously analyzed and identified as qualifying to be a 2R project. This addendum is to determine if the on- and off-ramps also qualify as a 2R or 3R project.

EXISTING FACILITY

The I-210 interchanges within the project limits between the I-5 junction (PM R0.00) and Christy Avenue (PM R9.08) are all diamond-type interchanges with the exception of the partial cloverleaf on westbound I-210 at Yarnell Street.

2R SAFETY SCREEN 1.0

Criteria: For projects on expressways with four lanes or more and freeways, the fatal + injury accident rates must be below either the statewide average or 0.35 accidents per million vehicle miles (acc/mvm). Since ramp accident rates are reported as accidents per million vehicles (acc/mv), the 0.35 acc/mvm limit does not apply and only the actual accident rates versus statewide average rates will be used as a screen.

Analysis: Table 1 shows those ramp locations where the actual fatal+injury accident rates are higher than the statewide average accident rates (Attachment 1- Table 2 shows a summary of accident rates for all the ramps).

- LA-210-PM R3.122 EB Off to Polk St.: The two-lane diamond-type off-ramp joins Polk Street at a signalized intersection. Between 04/01/2010 and 03/31/2013 there were a total of 3 accidents of which 2 involved injuries. Consideration should be given to replacing all the 8-inch section traffic signal heads at the intersection with 12-inch section heads for improved visibility. Signal poles with longer mast-arms may be needed for both directions of Polk Street.

- LA-210-PM R3.133 WB On from Polk St.: The two-lane diamond-type on-ramp has a traffic signal at the intersection with Polk Street. Between 04/01/2010 and 03/31/2013 there was a total of 1 accident which involved injuries. Consideration should be given to replacing all the 8-inch section traffic signal heads a the intersection with 12-inch section

heads for improved visibility. Signal poles with longer mast-arms may be needed for both directions of Polk Street.

- LA-210-PM R3.949 WB On from Hubbard St.: The existing two-lane diamond-type on-ramp joins Hubbard Street at a signalized intersection. Between 04/01/2010 and 03/31/2013 there were 7 accidents of which 4 involved injuries. May need to consider upgrading the traffic signal at the westbound on- and off-ramps to meet current standards.

TABLE 1
ROUTE 210 RAMPS WHERE ACTUAL ACCIDENT RATES EXCEED
STATEWIDE AVERAGE RATES FOR THREE-YEAR PERIOD
(04-01-2010 TO 03-31-2013)

Postmile	Ramp	No. of Accidents			Actual (acc/mv)	Average (acc/mv)
		Total	Fat	Inj	F+I	F+I
R3.122	EB Off to Polk St.	3	0	2	0.60	0.35
R3.133	WB On from Polk St.	1	0	1	0.27	0.22
R3.949	WB On from Hubbard St.	7	0	4	1.03	0.22
R4.262	WB Off to Hubbard St.	13	0	6	0.39	0.35
R4.281	EB On from Hubbard St.	6	0	5	0.31	0.22
R4.792	WB On from Maclay St.	4	0	4	0.98	0.22
R5.915	EB Off to Paxton St.	4	0	2	0.40	0.35
R6.169	WB Off to Paxton St.	5	0	3	1.12	0.35
R6.250	EB On from Paxton St.	1	0	1	0.40	0.22
R7.728	WB On from Osborne/Foothill	3	0	3	0.49	0.22
R8.011	WB Off to Osborne/Foothill	4	0	4	0.99	0.35

- LA-210-PM R4.262 WB Off to Hubbard St.: The two-lane diamond-type off-ramp joins Hubbard St. at a signalized intersection. Between 04/01/2010 and 03/31/2013 there were 13 accidents of which 6 involved injuries. Consider upgrading the traffic signal at Hubbard Street and the WB 210 on- and off-ramps to current standards.

- LA-210-PM R4.792 WB On from Maclay St.: The two-lane diamond-type on-ramp joins Maclay Street at a signalized intersection. Between 04/01/2010 and 03/31/2013 there were a total of 4 accidents of which all 4 involved injuries. Consider upgrading the traffic signal at the westbound on- and off-ramps.

- LA-210-PM 5.915 EB Off to Paxton St.: The two-lane diamond-type off-ramp is stop-controlled where it joins Paxton Street. Between 04/01/2010 and 03/31/2013 there were 4 accidents of which 2 involved injuries. Consider upgrading intersection safety lighting.

- LA-210-PM R6.169 WB Off to Paxton St.: The two-lane diamond-type off-ramp is stop-controlled where it joins Paxton Street. Between 04/01/2010 and 03/31/2013 there were 5 accidents of which 3 involved injuries. Consider upgrading intersection safety lighting.

- LA-210-PM R7.728 WB 210 On from Osborne St./Foothill Blvd.: The two-lane diamond-type on-ramp joins Foothill Boulevard at an intersection controlled by a traffic signal. Between 04/01/2010 and 03/31/2013 there were 3 accidents of which all 3 involved injuries. Consider upgrading the traffic signal at the intersection of Foothill Blvd. and the WB 210 on- and off-ramps to current standards.

- LA-210-PM R8.011 WB 210 Off to Osborne St./Foothill Blvd.: The two-lane diamond-type off-ramp joins Foothill Boulevard at an intersection controlled by a traffic signal. Between 04/01/2010 and 03/31/2013 there were 4 accidents of which all 4 involved injuries. Consider upgrading the traffic signal at the intersection of Foothill Blvd. and the WB 210 on- and off-ramps to current standards.

2R SAFETY SCREEN 2.0

Safety Screen 2.0 addresses collisions related to roadway widths on 2 and 3 lane conventional highways where shoulder widths are less than standard per DIB 79. Since the screening is for freeway on- and off-ramps, this safety screen does not apply.

Result: *Not Applicable*

2R SAFETY SCREEN 3.0

Criteria: For this screen, District Traffic Safety unit performs a safety analysis to determine if there are other issues that would indicate that general geometric improvements are needed based on the following questions.

3.1 Are there other safety issues that would indicate general geometric improvements are needed?

3.2 Are there cost-effective geometric improvements at spot locations that should be included in the project?

Analysis: To assess this part of screening we conducted a field review of the highway segment in question (LA-210, PM R0.0/R9.10). We reviewed and analyzed both Table C "ALL" and Table C "WET" for past 3 years from 04/01/2009 to 03/31/2012, and during this period only one Table C location was identified for Ramp (LA-210 PM R5.762 EB 210 Connector Off to WB

Rte.118). A project completed in early 2014 (EA 4T370) installed a concrete barrier along the left shoulder, improved the pavement skid resistance, and improved the highway lighting to address the wet pavement and run-off-road accidents at the connector.

Result: *Passes both 3.1 and 3.2*

2R SAFETY SCREEN 4.0

Criteria: Safety Screen 4.0 addresses pedestrian and bicycle needs on this project.

Analysis: The project does recommend ADA-compliant curb ramp and bicycle friendly grates where ramps terminate with local street.

Result: *Pass*

CONCLUSIONS AND RECOMMENDATIONS

This project passes the requirements for a 2R project per Design Information Bulletin 79.

Recommendations for improvements within the screen limits are listed below:

- Replace roadside signs with new signs where needed at on- and off-ramps.
- Install high night-time visibility thermoplastic stripe at on- and off-ramps.
- Upgrade disabled access ramps at ramp termini to current ADA standard. Relocate controller cabinets to improve disabled access on sidewalks.
- Replace all Type G and Type F delineators at all on and off-ramps. Where they are missing, install at 200 feet intervals on tangent, and variable spacing at curves.
- Westbound I-210 Off to/On from Hubbard Street: upgrade traffic signal and safety lighting to current standards.
- Westbound I-210 Off to/On from Maclay Street: upgrade traffic signal and safety lighting to current standards.
- Eastbound I-210 Off to Paxton Street: upgrade intersection safety lighting.
- Westbound I-210 Off to Paxton Street: upgrade intersection safety lighting.
- Westbound I-210 Off to Osborne St.-Foothill Blvd.: upgrade traffic signal and safety lighting to current standards.
- I-210 at Foothill Blvd. U.C.: upgrade the MBGR shielding the bridge columns in the median of Foothill Blvd. with concrete barrier and install crash attenuators at leading ends.

TRAFFIC SAFETY CONTACT

Call Ken Hatai at (213) 897-4655 or Mahmoud Hajjar at (213) 897-8285.

ATTACHMENTS:

1. TABLE 2: ROUTE 210 SUMMARY OF ACTUAL VS. AVERAGE ACCIDENT RATES AT RAMPS FOR THREE-YEAR PERIOD (04-01-2010 TO 03-31-2013)

TABLE 2
ROUTE 210 SUMMARY OF ACTUAL VS. AVERAGE ACCIDENT RATES AT RAMPS
FOR THREE-YEAR PERIOD (04-01-2010 TO 03-31-2013)

Post Mile	Ramp	No. of Accidents			Actual (acc/mv)			Average (acc/mv)		
		Fat	Inj	Total	Fatal	F+I	Total	Fatal	F+I	Total
R0.687	EB Off to Yarnell St.	0	0	0	0	0	0	0.003	0.35	1.01
R0.871	WB On from Yarnell St.	0	0	1	0	0	0.27	0.002	0.22	0.63
R1.006	WB Off to Yarnell St.	0	0	0	0	0	0	0.003	0.35	1.01
R1.041	EB On from Yarnell St.	0	0	0	0	0	0	0.002	0.22	0.63
R1.755	WB On from Roxford St.	0	1	3	0	0.22	0.67	0.002	0.22	0.63
R1.794	EB Off to Roxford St.	0	0	0	0	0	0	0.003	0.35	1.01
R2.100	WB Off to Roxford St.	0	0	1	0	0	0.25	0.003	0.35	1.01
R2.137	EB On from Roxford St.	0	0	3	0	0	0.74	0.002	0.22	0.63
R3.122	EB Off to Polk St.	0	2	3	0	0.60	0.90	0.003	0.35	1.01
R3.133	WB On from Polk St.	0	1	1	0	0.27	0.27	0.002	0.22	0.63
R3.415	WB Off to Polk St.	0	2	4	0	0.22	0.43	0.003	0.35	1.01
R3.442	EB On from Polk St.	0	1	3	0	0.10	0.30	0.002	0.22	0.63
R3.949	WB On from Hubbard St.	0	4	7	0	1.03	1.81	0.002	0.22	0.63
R3.969	EB Off to Hubbard St.	0	1	6	0	0.28	1.66	0.003	0.35	1.01
R4.262	WB Off to Hubbard St.	0	6	13	0	0.39	0.85	0.003	0.35	1.01
R4.281	EB On from Hubbard St.	0	5	6	0	0.31	0.38	0.002	0.22	0.63
R4.792	WB On from Maclay St.	0	4	4	0	0.98	0.98	0.002	0.22	0.63
R4.816	EB Off to Maclay St.	0	1	1	0	0.24	0.24	0.003	0.35	1.01
R5.057	WB Off to Maclay St.	0	2	3	0	0.15	0.23	0.003	0.35	1.01
R5.086	EB On from Maclay St.	0	2	8	0	0.16	0.65	0.002	0.22	0.63
R5.915	EB Off to Paxton St.	0	2	4	0	0.40	0.80	0.003	0.35	1.01
R5.919	WB On from Paxton St.	0	1	2	0	0.18	0.35	0.002	0.22	0.63
R6.169	WB Off to Paxton St.	0	3	5	0	1.12	1.86	0.003	0.35	1.01
R6.250	EB On from Paxton St.	0	1	1	0	0.40	0.40	0.002	0.22	0.63
R7.633	EB Off to Osborne/Foothill	0	0	2	0	0	0.35	0.003	0.35	1.01
R7.728	WB On from Osborne/Foothill	0	3	3	0	0.49	0.49	0.002	0.22	0.63
R8.011	WB Off to Osborne/Foothill	0	4	4	0	0.99	0.99	0.003	0.35	1.01
R8.012	EB On from Osborne/Foothill	0	0	2	0	0	0.43	0.002	0.22	0.63

PAVEMENT STRUCTURAL SECTION RECOMMENDATIONS

ATTACHMENT - G

District 7 Review Comments

KRS / RDF

Co-Rte-PM 07-LA-210-R0.0/R9.71
EA / Project ID: 07-30960K / 0714000299
PID doc: PSSR for 2R project
Attn: Rafael Molina / Kenneth Yip

Reviewer: Kirsten Stahl, Raimundo Jo-Fung
Functional Unit: Materials Investigations
Date: 07/29/2014

No.	Plan/SSP/ Page No.	Revised Comments
1	Typical Cross Section Sheet	Materials offers the following Pavement Structural Section recommendations: **(I) LA- 210 Freeway Mainline, Connectors, Median and Shoulder** A. **JPCP (Jointed Plain Concrete Pavement), JPCP-RSC (Jointed Plain Concrete Pavement-Rapid Strength Concrete) or PJCP (Precast Jointed Concrete Pavement)** $T.I._{40}$ = 16.0 R-value = 20 (with SEG) $T.I._{20}$ = 14.5 R-value = 20 (with SEG) 1.20' JPCP or PJCP — 1.15' JPCP or PJCP ------ Base Bond Breaker — ------ Base Bond Breaker 0.35' Alternate Treated Base* — 0.35' Alternate Treated Base* 0.70' Aggregate Base (AB), Class 3 — 0.70' Aggregate Base (AB), Class 3 ------ SEG (Subgrade Enhancement Geotextile) — ------ SEG 2.25' Total — 2.20' Total B. **PPCP (Precast Prestressed Conc. Pavement) or CRCP (Continuously Reinforced Conc. Pavement** $T.I._{40}$ = 16.0 R-value = 20 (with SEG) $T.I._{20}$ = 14.5 R-value = 20 (with SEG) 1.05' PPCP or CRCP — 1.00' PPCP or CRCP ------ Base Bond Breaker — ------ Base Bond Breaker 0.35' Alternate Treated Base* — 0.35' Alternate Treated Base* 0.70' Aggregate Base (AB), Class 3 — 0.70' Aggregate Base (AB), Class 3 ------ SEG — ------ SEG 2.10' Total — 2.05' Total

* **Alternate Treated Base (ATB)** includes: Lean Concrete Base (LCB), Lean Concrete Base Rapid Setting (LCB-RS), and Roller Compacted Concrete (RCC) to be selected at the contractor's option.

HDM Index 613.5(2) requires the first two feet of shoulder adjacent to the outside lane to be an extension of the mainline travelled way (mandatory standard). In other words, the outside lane must be fourteen feet wide.

The reason for the increase in thicknesses of the structural section in the shoulder and median area are due to the following: (1) Ease of constructability in having a uniform section, (2) Cost savings due to economy of scale, (3) Flexibility in increasing freeway capacity by re-striping without increase in cost due to replacement of old structural section with a new one to meet current standards.

(II) New Ramps:

40 Year Design Life

1. $T.I._{40}$ = 11 (Medium Traffic) R-value = 20 (with SEG)

0.85' JPCP or JPCP-RSC	OR	0.20' RHMA-G
0.35' ATB*		**0.35' HMA-C****
0.60' AB, Class 3		0.55' ATB*
------- SEG		1.05' AB, Class 3
1.80' Total		------- SEG
		2.15' Total

2. $T.I._{40}$ = 14 (Heavy Traffic) R-value = 20 (with SEG)

1.05'	JPCP or JPCP-RSC	OR	0.20' RHMA-G
0.35'	ATB*		**0.50' HMA-C****
0.70'	AB, Class 3		0.70' ATB*
-------	SEG		1.40' AB, Class 3
2.10'	Total		------- SEG
			2.80' Total

20 Year Design Life

3. $T.I._{20}$= 10 (Medium Traffic) R-value = 20 (with SEG)

0.80'	JPCP or JPCP-RSC	OR	0.20' RHMA-G
0.35'	ATB*		**0.30' HMA-C****
0.50'	AB, Class 3		0.50' ATB*
-------	SEG		0.90' AB, Class 3
1.65'	Total		------- SEG
			1.90' Total

4. $T.I._{20}$ = 12 (Heavy Traffic) R-value = 20 (with SEG)

0.95'	JPCP or JPCP-RSC	OR	0.20' RHMA-G
0.35'	ATB*		**0.40' HMA-C****
0.60'	AB, Class 3		0.60' ATB*
-------	SEG		1.15' AB, Class 3
1.90'	Total		------- SEG
			2.35' Total

		Notes: **Please note that the JPCP or JPCP-RSC option must be used at the Ramp Terminus where truck traffic is deemed heavy (150' min. length).** ** **If electrical loop detectors are required at the on-ramps, the loop should be cut, epoxy filled, and sandwiched in this HMA layer and Geosynthetic Pavement Interlayer (GPI) within the limits of the loop detector must be placed, prior to constructing the final HMA-C and RHMA-G layers.** **(III) Local Streets that may be impacted:** $T.I._{20}$ = 12 R-value = 20 (with SEG) 0.60' HMA-C 0.60' ATB* 1.15' AB, Class 3 ------ SEG 2.35' Total
2	General Comments	• Submit Plans, Specifications, and Cost Estimates during the PS&E stage for further review and comments.

LIFE-CYCLE COST ANALYSIS

ATTACHMENT - H

Life-Cycle Cost Analysis Form

Alternative 2 - Preferred Alternative

2R Pavement Rehabilitation for the two outer lanes using RSC and JPCP respectively and slab replacement for the remaining lanes in each direction. (See Section 6A of the PSSR).

Pavement Design Life: 40 Years		
Initial Construction Costs:		$ 89,912,000
Initial Project Support Costs:	$ 21,000,000	
Future Maintenance & Rehabilitation Costs:**		$ 1,435,750
TOTAL AGENCY COSTS:		$ 91,347,750
USER COSTS:		$ 928,330
TOTAL LIFE-CYCLE COSTS:		$ 92,276,080

Crack Seat and Overlay Alternative (CSO)

This rehabilitation strategy would provide a crack, seat and overlay on the existing pavement. (See Section 6Q of the PSSR).

Pavement Design Life: 20 Years		
Initial Construction Costs:		$ 60,678,045
Initial Project Support Costs:	$ 14,000,000	
Future Maintenance & Rehabilitation Costs:**		$ 72,736,365
TOTAL AGENCY COSTS:		$ 133,414,410
USER COSTS:		$ 28,427,690
TOTAL LIFE-CYCLE COSTS:		$ 161,842,100

Reason this is not the preferred Alternative:

This alternative has a higher life-cycle cost than the preferred alternative.

Life-Cycle Cost Analysis Form

Rapid Strength Concrete Pavement (RSC)

2R Pavement Rehabilitation for the two outer lanes using RSC and slab replacement for the remaining lanes in each direction. (See Section 6Q of the PSSR).

Pavement Design Life: 40 Years		
Initial Construction Costs:		$ 98,798,576
Initial Project Support Costs:	$ 23,000,000	
Future Maintenance & Rehabilitation Costs:**		$ 1,436,176
TOTAL AGENCY COSTS:		$ 100,234,750
USER COSTS:		$ 217,530
TOTAL LIFE-CYCLE COSTS:		$ 100,452,280

Reason this is not the preferred Alternative:

This alternative has a higher life-cycle cost than the preferred alternative.

Precast Panel Concrete Pavement (PPCP)

2R Pavement Rehabilitation for the two outer lanes using PPCP and slab replacement for the remaining lanes in each direction. (See Section 6Q of the PSSR).

Pavement Design Life: 40 Years		
Initial Construction Costs:		$ 108,418,926
Initial Project Support Costs:	$ 25,000,000	
Future Maintenance & Rehabilitation Costs:**		$256,094
TOTAL AGENCY COSTS:		$ 108,675,020
USER COSTS:		$ 203,300
TOTAL LIFE-CYCLE COSTS:		$ 108,878,320

Reason this is not the preferred Alternative:

This alternative has a higher life-cycle cost than the preferred alternative.

STORM WATER COMPLIANCE

ATTACHMENT - I

Dist-County-Route: 07-VEN-23
Post Mile Limits: PM R3.34/PM R11.45
Project Type: Pavement Preservation (2R) Project
Project ID (or EA): 0713000479 (30250K)
Program Identification: 201.122
Phase: ☒ PID
☐ PA/ED
☐ PS&E

Regional Water Quality Control Board(s): Los Angeles – Region 4

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: 65.60 acres Risk Level: 2
Estimated: Construction Start Date: 9/15/2020 Construction Completion Date: 9/16/2023
Notice of Intent (NOI) Date to be submitted: 8/15/2020

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.

Kenneth Yip, Registered Project Engineer — 6/10/2015 Date

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

Ravindra Ghate — 6/18/2015
Ravindra B. Ghate, Project Manager — Date

David Lawrence For Roger Castillo — 6/17/15
Roger Castillo, Designated Maintenance Representative — Date

06/18/15
Ron Russak, Designated Landscape Architect Representative — Date

6/18/15
[Stamp Required for PS&E only] *Shirley Pak, District/Regional Design SW Coordinator or Designee* — Date

RIGHT OF WAY DATA SHEET

ATTACHMENT - J

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

M e m o r a n d u m

Serious Drought!
Help Save Water!

To: Rafael Molina , Design Manager
Office of Design
District 7, Los Angeles Office

From: Dan Murdoch, Office Chief
Right of Way Appraisals, and Planning & Management
District 7, Los Angeles Office

Date: 6/22/2015
EA: 30960K
Data Sheet ID NO: ds1100
Project ID # 0714000299

Subject: Current Estimated Right of Way Costs for **Project Report**

We have completed an estimate of the Right of Way costs for the above referenced project based on information received from Dania Almordaah PE and the following assumptions and limiting conditions apply:

- The mapping did not provide sufficient detail to determine the limits of the right of way required.
- The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.
- Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the estimate.

Right of Way Certificate (RWC) lead time will require a minimum of NA after maps to appraisal **(MA).** Completed Appraisal maps include HMDD, COS, HW Memo, and RE-49. An executed copy of the new freeway agreement if required for the project. When utility relocation is warranted, utility conflict maps will be required. Additionally a minimum of NA will be required after receiving the last revision to the appraisal map. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed and present a risk to the RWC project delivery milestone. Due to the passage of Map 21 and the Buy America provision, the Right of Way Certification process will be longer, if Utility Relocation is necessary.

Current Schedule: PRSM

PAED (M 200)	MA (M 224)	RWC (M 410)	RTL (M 460)	CCA (M 600)
3/1/2017	N/A	9/27/2018	10/25/2018	4/26/2021

TO **Rafael Molina**
ATTN **Dania Almordaah**
SENIOR R/W P&M **Mirna Dagher**
ROUTE 210
PM_KM 0.0-9.7
EA 30960K
Project ID #
ALT

R/W DATA SHEET

ID NO ds1100

Date of Data Sheet 6/22/2015

Project Description Pavement Preservation (2R) project of I-210 between PM R0.0 to PM R9.7.

This cost estimate is valid for the above scoping report only. This is an estimate only and not an appraisal. It may be based on worse case scenarios.
The estimate is subject to change and revision.
The mapping did not provide sufficient nor adequate detail to determine the limits of thr Right of Way required and effects on the improvements.
The transportation facilities have not been sufficiently designed for our estimator to determine the damages to any of the remainder parcels affected bv

This cost estimate is pursuant to the following responses supplied by Rafael Molina to the Data Sheet Request Form.

	YES	NO	Not known at this time
Utilities are depicted on plans		X	
Railroads are depicted on plans		X	
There are Material and/or Disposal Sites Required			X
Caltrans will do the Right of Way work	X		
There will be a Cooperative Agreement		X	
This is a reimbursable project		X	
There is Hazardous Waste potential		X	

RW COST ESTIMATE

	CURRENT VALUE	ESCALATED VALUE
R/ w acq.(incl.contingency G.w-condem.-adm.s'tl.)Permits		
Clearance		
RAP (cont rate.)	No Right of Way	
Escrow costs (cont rate.)		
Utility relocation costs	**$228,000**	**$357,635**
Estimate of Reimbursed Appraisal Fee		
Total estimated cost	**$228,000**	**$357,635**

Escalation Rate Rw .07
Escalation Rate Utilities .08
Cert.date 9/27/18

Parcel Count and Py Info

ROUTE 210
PM_KM 0.0-9.7
EA 30960K
ALT

PARCEL TYPES	DUAL APPR.
A	
B	
C	
D	
F	

RIGHTS NEEDED	
FEE	
EASE	
TCE	

TAKES	
FULL	
PART	
TOTAL	

DISPLACEMENT OF UNITS	
SFR	
BUS	
MULTI	

PARCELS WITH RAP

POTENTIAL CLEARANCE PARCELS

POTENTIAL CONDEMNATION PARCELS

POTENTIAL EXCESS PARCELS

UTILITY IMPACTS	
u4-1	
u4-2	
u4-3	
u4-4	
u5-7	
u5-8	
u5-9	

Estimate Of Right Of Way Support Hours

Activity Codes	Function	Hours
225 & 245	Appraisals	
225 & 245	Acquisitions	
200	Utilities	
185.20.40	Utility Potholing	495
205	Railroads	
225 & 245	Condemnation	
225 & 245	Clearance	
225 & 245	Relocation	
220 & 300	RW Engineering	
	Total	**495**

UTILITY INFORMATION

1)	Pothole 8" Gas (SCG)	4	3000	$12,000
2)	Pothole 6" Gas (SCG)	8	3000	$24,000
3)	Pothole 4" Gas (SCG)	12	3000	$36,000
4)	Pothole 3" Gas (SCG)	8	3000	$24,000
5)	Pothole 2" Gas (SCG)	4	3000	$12,000
6)	Pothole 30" Water (LA W & P)	4	3000	$12,000
7)	Pothole 16" Water (LA W & P)	4	3000	$12,000
8)	Pothole 12" Water (LA W & P)	4	3000	$12,000
9)	Pothole 4" Water (LA W & P)	4	3000	$12,000
10)	Pothole 6" Electrical (LA W & P)	4	3000	$12,000
11)	Pothole 5" Electrical (LA W & P)	4	3000	$12,000
12)	Pothole 12" Sewer (LA)	4	3000	$12,000
13)	Pothole Telephone (Time Warner)	4	3000	$12,000
14)	Pothole Telephone (Verizon)	8	3000	$24,000
15)				

Are utility easements required? No

Are Utility agreements required? No

Utility types , Facilities & Agreements Description:

The provided time for Utilities Engineering to do the research is very limited. Therefore, no field work was conducted by Utility Engineer. Designer (Ken Yip) was agreed to provide supplemental funds to accommodate additional utilities potholing.

Total Current Cost $228,000

Const. Completion Date 4/26/2021

Utility Escalation Rate 8%

Total Escalated Cost $357,635

ROUTE 210
PM_KM 0.0-9.7
EA 30960K
ALT

RR INFORMATION

Are RR affected: None

Describe affected RR: None

When Branch Lines Or Spurs Are Affected ,would Acquisition And Or Payment Of Damages To Businesses And Or Industries Served By The Railroad Facility Be More Cost Effective Than Service Contracts ,or Grade Separations Requiring Construction And Maintenance Agreements Involved?

0

Explain Branch lines: NA

Discuss Types Of Agreements And Rights Required From The Railroads. Are Grade Xing Requiring Service Contracts ,or Grade Separations Requiring Construction And Maintenance Agreements Involved.

NA

RAILROAD COST PERTAINING TO CONSTRUCTION ACTIVITY: $0

The cost of flagging related to project construction activity is a Phase 4 cost (construction contract cost). Though noted on the RW data sheet, the estimated flagging cost is not a RW cost, and is not a part of RW Capital.. The estimate is provided so it can be added to the engineer's estimate for construction – the RR flagging estimate is based on days needed for construction activity.

		DATE
Right of Way Estimate prepared by	Roy Gallegos	6/22/15
Railroad Estimate prepared by	Steve Johnson	10/21/14
Utilities Estimate prepared by	Michele Graves	6/22/15

I have personally reviewed this R/W Data Sheet and all supporting information I certify that the probable highest and best use estimated values and assumptions are reasonable and proper subject to the limiting conditions set forth and I find this Data Sheet complete and current.

This Data Sheet is not to be signed by Chief unless accompanied by final scoping report(PR,PSR,PSSR) for review and/or signature.

CHIEF _____ 6/26/15

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

ATTACHMENT - K

TRANSPORTATION MANAGEMENT PLAN DATA SHEET
(Preliminary TMP Elements and Costs)

Co/Rte/PM LA/210/R 0.0–R 9.7 EA 07-30960K Alternative No. _____

Project Limit Rte 210 from Route 5 to 0.2 miles West of Big Tujunga Wash Bridge.

Project Description Roadway rehabilitation

1) Public Information

- ☐ a. Brochures and Mailers _____
- ☒ b. Press Release
- ☒ c. Paid Advertising $90,000.00
- ☐ d. Public Information Center/Kiosk _____
- ☐ e. Public Meeting/Speakers Bureau
- ☐ f. Telephone Hotline
- ☐ g. Internet
- ☒ h. Others Flyers _____

2) Motorists Information Strategies

- ☐ a. Changeable Message Signs (Fixed) _____
- ☐ b. Changeable Message Signs (Portable) _____
- ☐ c. Ground Mounted Signs _____
- ☐ d. Highway Advisory Radio _____
- ☐ e. Caltrans Highway Information Network (CHIN)
- ☐ f. Others _____ _____

3) Incident Management

- ☒ a. Construction Zone Enhanced Enforcement Program (COZEEP) $970,000.00
- ☒ b. Freeway Service Patrol $916,000.00
- ☐ c. Traffic Management Team
- ☐ d. Helicopter Surveillance _____
- ☐ e. Traffic Surveillance Stations (Loop Detector and CCTV) _____
- ☐ f. Others _____ _____

4) Construction Strategies

- [x] a. Lane Closure Chart
- [ ] b. Reversible Lanes
- [ ] c. Total Facility Closure
- [ ] d. Contra Flow
- [ ] e. Truck Traffic Restrictions $ _____
- [ ] f. Reduced Speed Zone $ _____
- [x] g. Connector and Ramp Closures
- [ ] h. Incentive and Disincentive $ _____
- [ ] i. Moveable Barrier $ _____
- [ ] j. Others _____ $ _____

5) Demand Management

- [ ] a. HOV Lanes/Ramps (New or Convert) $ _____
- [ ] b. Park and Ride Lots $ _____
- [ ] c. Rideshare Incentives $ _____
- [ ] d. Variable Work Hours
- [ ] e. Telecommute
- [ ] f. Ramp Metering (Temporary Installation) $ _____
- [ ] g. Ramp Metering (Modify Existing) $ _____
- [ ] h. Others _____ $ _____

6) Alternative Route Strategies

- [ ] a. Add Capacity to Freeway Connector $ _____
- [ ] b. Street Improvement (widening, traffic signal... etc) $ _____
- [ ] c. Traffic Control Officers $ _____
- [ ] d. Parking Restrictions
- [ ] e. Others _____ $ _____

7) Other Strategies

- [ ] a. Application of New Technology $ _____
- [ ] e. Others _____ $ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS = $ 1,976,000.00

Project Notes:

1. The project proposes the following:
   - Reconstruct pavement slabs and structural sections of two lanes adjacent to the right shoulder of Eastbound (EB) and Westbound (WB).
   - Replace freeway lanes #1 and #2 third-stage cracked pavement slabs.
   - Upgrade ADA curb ramp and existing concrete barrier to current standards.
   - Reconstruct left shoulders.
   - Cold plane and over lay the right shoulders, connectors and ramps.
   - Replace all overhead signs within the project limits and provided new signage at specified locations.
   - Remove and replace non-standard Metal Beam Guard Rail (MBGR) and non-standard asphalt concrete dikes within the project limits.
2. TMP for EB and WB mainline two lanes adjacent to the right shoulder pavement slabs and structural section reconstruction will be to remove the existing median and shift 2 lanes of traffic onto the 30 foot wide median while existing two lanes are reconstructed, whereby the existing number of mainline freeway lane in each direction will be provided. Traffic in each direction will be separated by temporary railing Types K. Possible long term ramp closures will be studied at a latter phase.
3. TMP for the remaining work was developed based on closure of the following during off-peak hours:
   - Route 210 freeway lanes and left and right shoulders in both directions.
   - Route 210 freeway on/off-ramps within the project limits.
4. The work shall be done in accordance with the lanes closure charts provided in the Maintaining Traffic Specifications.
5. Caltrans Office of Public Affairs and Media Relations provided the Paid Advertising cost estimate of $90,000.00
6. The COZEEP cost estimate of $970,000 was provided by the Caltrans Construction Traffic Advisor.
7. During a stage inside and outside shoulder are not available within the project limit. Freeway Service Patrol will be provided during 4 hours morning peak and 5 hours afternoon peak. The cost estimate of Freeway Service Patrol is $916,000.

PREPARED BY _____ DATE 9/8/14
Dennis Do, TE

APPROVAL RECOMMENDED BY _____ DATE 9/8/14
Ali Bamshad,
Senior Transportation Engineer

APPROVED BY _____ DATE 9/9/14
Sam Esquenazi,
District Traffic manager

MINI-PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

ATTACHMENT - L

MINI
PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District	County	Route	PM	EA	E-FIS
07-Los Angeles	LA	210	R0.0/R9.7	30960K	0714000299
Project Title: Pavement Rehabilitation SHOPP Project					
Project Manager Mirna G Dagher				Phone # 213-897-2786	
Project Engineer Rafael Molina				Phone # 213-897-7945	
Environmental Branch Chief/Manager Eduardo Aguilar				Phone # 213-897-8492	

2. Project Description

Purpose and Need

Caltrans proposes to replace the existing pavement along the outer two lanes on Route 210 between Interstate 5 (PM0.0) to 0.27 miles east of Wheatland Avenue Undercrossing (PM9.7) with a pavement structure that should provide a minimum service of 40 years. The project also proposes pavement rehabilitation for the on/ramps, connectors and adjacent shoulders. In addition, this project will upgrade the metal beam guardrail (MBGR), Aggregate Concrete dikes, sign structures and panels, American with Disabilities (ADA) Act curb ramps, traffic loop detectors, and some other highway appurtenances and facilities within the projects limits.

Description of work

The Project is anticipated to be within Caltrans right-of-way. Most of the construction access will be through frontage roads and city streets; temporary lane closures at ramps, city streets and frontage roads during the actual work period may be required.

3. Anticipated Environmental Approval

CEQA		NEPA	
Environmental Determination			
Statutory Exemption	☐		
Categorical Exemption	☒	Categorical Exclusion	☒
CEQA Lead Agency (if determined):		Caltrans	

4. Summary Statement

In order to identify environmental issues, constraints, costs and resource needs, a mini-PEAR (Preliminary Environmental Analysis Report) was prepared for the project. It is important to note that all technical Studies will be deferred to the Capital phases of the project. The cultural and biological studies were limited to database searches.
It is anticipated that a Categorical Exemption and Categorical Exclusion will apply to this project. **Based on existing workload and available resources, it is anticipated to take three months to complete the CE/CE. This project will require a total of 1148 resource hours for both the Office of Environmental Engineering and Division of Environmental Planning (please refer to Attachment A – Resources by WBS Code).**

5. Special Environmental Considerations

Only the Build Alternative (as previously outlined) and the No-Build Alternative have been proposed.

The proposed project will not require any Air Quality analyses beyond the typical CE/CE project. Detailed traffic data will not need to be obtained in order to demonstrate and fully evaluate air impacts.

- Air Quality: The proposed project will not require more extensive Air Quality analyses beyond the typical CE/CE project.

- Biological Environment: For the Build Alternative seasonal constraints will apply, but **only if tree removal is required.** It is recommended that the activities that could disturb nesting birds, such as clearing and grubbing or work with high noise volumes, be scheduled outside of the nesting season (February 15 to September 1). If such scheduling is unavoidable and this project is scheduled to occur during the nesting season, a nesting bird survey is required one week prior to the start of construction to confirm the absence of nesting birds in the project study area. Be advised that if nesting birds are detected during the survey, construction delays will occur.

- Cultural Resources: There is a low possibility that any cultural resource eligible for or listed on either the National Register of Historic Places or the California Register of Historical Resources, will be affected by the proposed undertaking.

- Hazardous Waste/Materials: A Preliminary Hazardous Waste Assessment indicates that a Lead Compliance Plan will need to be implemented because of aerially deposited lead in minor amounts of soil at the edge of mainline, connectors and ramps as MBGRs and dikes are replaced and bridge embankment slope is hardscaped within the project limits. White thermoplastic traffic stripes, Asphalt/Concrete Replacement and soil waste product can be hauled off to a Class III waste facility. All electrical equipment requiring disposal shall be packaged and transported to an appropriate disposal facility.

- Noise and Vibration: N/A
- Visual/Aesthetics: N/A

6. Disclaimer

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or in environmental laws, regulations, or guidelines.

7. Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements.

Environmental Branch Chief _____ Date: 12/23/14

Project Manager _____ Date: 12/23/14

REQUIRED ATTACHMENTS:

Attachment A: Estimated Resources by WBS Code – Short List

Attachment B: PEAR Environmental Commitments Cost Estimate

ATTACHMENT A - Resources by WBS Code

Project EA: 30960K
EFIS ID: 714000299
Description: Pavement Rehabiliation

WBS Code	Generalist		Biology	Cultural	Air	Haz Waste	Noise	Stewardship	Supp Services	Other Services	Total
	Senior	Staff									
100	-	-	-	-	-	-	-	-	-	-	-
150	-	-	10	-	-	-	-	-	-	-	10
160	-	-	-	-	-	-	-	-	-	-	-
165	-	-	36	60	8	300	-	-	-	-	404
175	-	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-		-	-	-	-	-	-
205	-	-	-	-	-	-	-	-	-	-	-
230	-	-	-	-	-	-	-	-	-	-	-
235	-	-	-	12	-	600	-	-	-	-	612
255	-	-	16	20	-	-	-	-	-	-	36
270	-	-	30	20	-	-	-	-	-	-	50
285	-	-	16	-	-	-	-	-	-	-	16
290	-	-	-	-	-	-	-	-	-	-	-
295	-	-	16	4	-	-	-	-	-	-	20
Total:	**-**	**-**	**124**	**116**	**8**	**900**	**-**	**-**	**-**	**-**	**1,148**

Updated 11/12/12

Attachment B: PEAR Environmental Commitments Cost Estimate

1. *Project Information*

District	County	Route	PM	EA	E-FIS
07	LA	210	R0.0/9.7	30960K	0714000299
Project Title: *Brief project description* Pavement Preservation Program SHOPP Project					
Form completed by: (Name/District Office) Eddie Isaacs/District 7 Los Angeles				Date: December 23, 2014	
Project Manager Mirna G Dagher				Phone # 213-897-2786	

2. *Permits and Agreements*

	Permits and Agreements ($$)
☐ Fish and Game 1602 Agreement	
☐ Coastal Development Permit	
☐ State Lands Agreement	
☐ Section 401 Water Quality Certification	
☐ Section 404 Permit – Nationwide (US Army Corps)	
☐ Section 404 Permit – Individual (US Army Corps)	
☐ Section 10 Navigable Waters Permit (US Army Corps)	
☐ Section 9 Permit (US Coast Guard)	
☐ Other:	
Total (enter zeros if no cost):	0000

PRELIMINARY COST ESTIMATE

ATTACHMENT – M

PID Cost Estimate

Project ID: 0714000299

Type of Estimate : Project Scope Summary Report
Program Code : SHOPP
Project Limits : 07-VEN-210 PM R0.00/PM R9.7
Description:
Scope : Pavement Rehabilitation
Alternative : Alternative #2

	Current Cost	Escalated Cost
ROADWAY ITEMS	$ 89,911,900	$ 104,084,263
STRUCTURE ITEMS	$ -	
SUBTOTAL CONSTRUCTION COST	$ 89,911,900	$ 104,084,263
RIGHT OF WAY	$ 228,000	$ 357,635
TOTAL CAPITAL OUTLAY COST	$ 90,140,000	$ 104,442,000
PR/ED SUPPORT	$ -	$ 500,000
PS&E SUPPORT	$ -	$ 6,000,000
RIGHT OF WAY SUPPORT	$ -	$ 500,000
CONSTRUCTION SUPPORT	$ -	$ 14,000,000
OTAL CAPITAL OUTLAY SUPPORT COST*	$ -	$ 21,000,000
TOTAL PROJECT COST		$ 126,000,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year: May / 2015

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager	Mirna Dagher	6/26/2015	(213) 897-2786
	Project Manager	**Date**	**Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	4,266,900
2	**Pavement Structural Section**	$	48,280,900
3	**Drainage**	$	1,200,000
4	**Specialty Items**	$	3,770,200
5	**Environmental**	$	1,785,800
6	**Traffic Items**	$	9,999,100
7	**Detours**	$	-
8	**Minor Items**	$	346,600
9	**Roadway Mobilization**	$	-
10	**Supplemental Work**	$	90,000
11	**State Furnished**	$	2,190,000
12	**Contingencies**	$	17,982,400
13	**Overhead**	$	-
	TOTAL ROADWAY ITEMS	**$**	**89,911,900**

Estimate Prepared By	Kenneth Yip	6/26/2015	213-897-0076
	Name and Title	Date	Phone
Estimate Reviewed By			
	Name and Title	Date	Phone

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

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
160101	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
170101	Develop Water Supply	LS		x		=	$	-
190101	Roadway Excavation	CY	281,126	x	15.00	=	$	4,216,890
190103	Roadway Excavation (Type Y) ADL	CY		x		=	$	-
190105	Roadway Excavation (Type Z-2) ADL	CY		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
198001	Impored Borrow	CY		x		=	$	-
198007	Imported Material (Shoulder Backing)	TON		x		=	$	-
XXXXXX	Some Item			x		=	$	-

TOTAL EARTHWORK SECTION ITEMS	**$ 4,266,900**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD	293,534	x	0.90	=	$	264,181
1532XX	Remove Concrete (type)	SY	5,488	x	16.00	=	$	87,808
260303	AB CL3	CY	67,217	x	16.00	=	$	1,075,472
280000	Lean Concrete Base	CY	43,055	x	95.00	=	$	4,090,225
280015	Lean Concrete Base - RS	CY	9,724	x	250.00	=	$	2,431,000
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
365001	Sand Cover	TON		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
377501	Slurry Seal	TON		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
390XXX	Rubberized Hot Mix Asphalt	TON	34,071	x	90.00	=	$	3,066,390
390138	Rubberized Hot Mix Asphalt (A Graded)	TON		x		=	$	-
393003	Geosynthetic Pavement Interlayer (Bond Braker)	SQYD	476,398	x	1.00	=	$	476,398
39405X	Shoulder Rumber Strip *(HMA, Type XX Inden*	STA		x		=	$	-
394071	Place Hot Mix Asphalt Dike	LF		x		=	$	-
394090	Place Hot Mix Asphalt (Misc. Area)	SQYD		x		=	$	-
397005	Tack Coat	TON		x		=	$	-
401000	Concrete Pavement	CY		x		=	$	-
411105	Replace Individual Cracked Slabs (RSC)	CY	5,488	x	350.00	=	$	1,920,800
404092	Seal Pavement Joint	LF	12,000	x	20.00	=	$	240,000
404094	Seal Longitudinal Isolation Joint	LF		x		=	$	-
413112A	Repair Spalled Joints (Polyester Grout)	SQYD		x		=	$	-
413115	Seal Existing Concrete Pavement Joint	LF		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD	358,640	x	5.00	=	$	1,793,200
731502	Minor Concrete (Misc. Const)	EA		x		=	$	-
731510	Minor Concrete (Sidewalks)	SQYD		x		=	$	-
27266	Replace Concrete Pavement (RSC)	CY	37,756	x	350.00	=	$	13,214,600
401055	Replace Concrete Pavement (Jointed Plane C	CY	126,029	x	150.00	=	$	18,904,350
XXXXXX	Saw Cut AC Pavement	YD	13,766	x	3.00	=	$	41,298
XXXXXX	SEG	SQYD	288,074	x	2.00	=	$	576,148
XXXXXX	Hardscaping	CY	165	x	600.00	=	$	99,000

TOTAL STRUCTURAL SECTION ITEMS	**$ 48,280,900**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
150206	Abandon Culvert	LF		x		=	$	-
150805	Remove Culvert	LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
193114	Sand Backfill	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
510512	Minor Concrete (Box Culvert)	CY		x		=	$	-
62XXXX	XXX" APC Pipe	LF		x		=	$	-
64XXXX	XXX" Plastic Pipe	LF		x		=	$	-
65XXXX	XXX" RCP Pipe	LF		x		=	$	-
66XXXX	XXX" CSP Pipe	LF		x		=	$	-
68XXXX	Edge Drain	LF		x		=	$	-
69XXXX	XXX" Pipe Downdrain	LF		x		=	$	-
70XXXX	XXX" Pipe Inlet	LF		x		=	$	-
70XXXX	XXX" Pipe Riser	LF		x		=	$	-
70XXXX	XXX" Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
729010	Rock Slope Protection Fabric	SQYD		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Drainage Rehabilitation	LS	1	x	1,200,000.00	=	$	1,200,000
XXXXXX	Some Item			x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,200,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
070012	Progress Schedule (Critical Path Method)	LS		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF		x		=	$	-
150668	Remove Terminal Systems	EA		x		=	$	-
1532XX	Remove Barrier (*Insert Type)*	LF		x		=	$	-
153250	Remove Sound Wall	SQFT		x		=	$	-
190110	Lead Compliance Plan	LS	1	x	7,000.00	=	$	7,000
49XXXX	CIDH Concrete Piling *(Insert Diameter)*	LF		x		=	$	-
510060	Structural Concrete (Retaining Wall)	CY		x		=	$	-
510133	Class 2 Concrete (Retaining Wall)	CY		x		=	$	-
510524	Minor Concrete (Sound Wall)	CY		x		=	$	-
5110XX	Architectural Treatment *(Insert Type)*	SQFT		x		=	$	-
511048	Apply Anti-Graffiti Coating	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall *(Insert Type)*	SQFT		x		=	$	-
518002	Sound Wall (Masonry Block)	SQFT		x		=	$	-
520103	Bar Reinf. Steel (Retaining Wall)	LB		x		=	$	-
80XXXX	Fence (*Insert Type*)	LF		x		=	$	-
832001	Metal Beam Guard Railing	LF	26,487	x	35.00	=	$	927,045
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
83954X	Transition Railing *(WB-31)*	EA	42	x	2,200.00	=	$	92,400
8395XX	Terminal System (Type CAT)	EA	1	x	3,500.00	=	$	3,500
8395XX	Alternative Flared Terminal System	EA		x		=	$	-
8395XX	End Anchor Assembly (*Insert Type*)	LF	175	x	600.00	=	$	105,000
839561	Rail Tensioning Assembly	EA		x		=	$	-
839XXX	Crash Cushion *(Insert Type)*	EA		x		=	$	-
83XXXX	Concrete Barrier *(Insert Type)*	LF	47,913	x	55.00	=	$	2,635,215
XXXXXX	Some Item			x		=	$	-

TOTAL SPECIALTY ITEMS $ 3,770,200

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Biological Mitigation	LS		x		=	$	-
071325	TEMPORARY REINFORCED SILT FENCE	LF		x		=	$	-
071325	Temporary Fence (Type ESA)	LF		x		=	$	-
XXXXXX	Hazardous Waste due to Stripping Removal	LS	1	x	170,720.00	=	$	170,720
XXXXXX	Contaminated Soil Disposal	LS	1	x	100,000.00	=	$	100,000
						Subtotal Environmental		*$ 270,720*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
200001	Highway Planting	LS	1	x	50,000.00	=	$	50,000
20XXXX	XXX" (*Insert Type*) Conduit *(Use for*	LF		x		=	$	-
20XXXX	Extend XXX" *(Insert Type)* Conduit	LF		x		=	$	-
201700	Imported Topsoil	CY		x		=	$	-
2030XX	Erosion Control (Type __)	SQYD		x		=	$	-
203021	Fiber Rolls	LF		x		=	$	-
203026	Move In/ Move Out (Erosion Control)	EA		x		=	$	-
204099	Plant Establishment Work	LS		x		=	$	-
204101	Extend Plant Establishment (X Years)	LS		x		=	$	-
208000	Irrigation System	LS	1	x	25,000.00	=	$	25,000
208304	Water Meter	EA		x		=	$	-
209801	Maintenance Vehicle Pullout	EA		x		=	$	-
XXXXXX	Design Pollution Prevention BMPs	LS	1	x	360,000.00	=	$	360,000
						Subtotal Landscape and Irrigation		*$ 435,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
074016	Construction Site Management	LS		x		=	$	-
074017	Prepare WPCP	LS		x		=	$	-
074019	Prepare SWPPP	LS		x		=	$	-
074023	Temporary Erosion Control	SQYD		x		=	$	-
074027	Temporary Erosion Control Blanket	SQYD		x		=	$	-
074028	Temporary Fiber Roll	LF		x		=	$	-
074032	Temporary Concrete Washout Facility	EA		x		=	$	-
074033	Temporary Construction Entrance	EA		x		=	$	-
074035	Temporary Check Dam	LF		x		=	$	-
074037	Move In/ Move Out (Temporary Erosion Contı	EA		x		=	$	-
074038	Temp. Drainage Inlet Protection	EA		x		=	$	-
074041	Street Sweeping	LS		x		=	$	-
074042	Temporary Concrete Washout (Portable)	LS		x		=	$	-
XXXXXX	Construction Site BMPs	LS	1	x	1,080,000.00	=	$	1,080,000
XXXXXX	Permanent BMPs	LS		x		=	$	-

Supplemental Work for NPDES

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

066595	Water Pollution Control Maintenance Sharing*	LS		x		=	$	-
066596	Additional Water Pollution Control**	LS		x		=	$	-
066597	Storm Water Sampling and Analysis***	LS		x		=	$	-
XXXXXX	Some Item							
						Subtotal NPDES (Without Supplemental Work)		*$ 1,080,000*

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

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 1,785,800

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
150760	Remove Sign Structure	EA		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
5602XX	Furnish Sign Structure	LB		x		=	$	-
5602XX	Install Sign Structure	LB		x		=	$	-
56XXXX	XXX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
860090	Maintain Existing Traffic Management	LS		x		=	$	-
860810	Inductive Loop Detectors	LS	1	x	35,000.00	=	$	35,000
86055X	Lighting & Sign Illumination	LS	1	x	150,000.00	=	$	150,000
8607XX	Interconnection Facilities	LS		x		=	$	-
8609XX	Traffic Monitoring Stations	LS		x		=	$	-
860XXX	Signals & Lighting	LS	1	x	100,000.00	=	$	100,000
8611XX	Ramp Metering System (Location X)	LS		x		=	$	-
8611XX	Ramp Metering System (Location X)	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Relocate Electrical Conduits	LS		x		=	$	-
XXXXX	Microwave Video Detection System	LS	1	x	250,000.00	=	$	250,000

Subtotal Traffic Electrical *$ 535,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
120090	Construction Area Signs	LS	1	x	25,000.00	=	$	25,000
150701	Remove Yellow Painted Traffic Stripe	LF		x		=	$	-
150710	Remove Traffic Stripe	LF		x		=	$	-
150713	Remove Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
566011	Roadside Sign (One Post)	EA		x		=	$	-
566012	Roadside Sign (Two Post)	EA		x		=	$	-
560XXX	Furnish Sign Panels	SQFT		x		=	$	-
560XXX	Install Sign Panels	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
84XXXX	Permanent Pavement Delineation	LS	1	x	953,500.00	=	$	953,500
XXXXXX	Construct Overhead Action Sign	LS	1	x	4,645,000.00	=	$	4,645,000

Subtotal Traffic Signing and Striping *$ 5,623,500*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120100	Traffic Control System	LS	1	x	1,806,000.00	=	$	1,806,000
120120	Type III Barricade	EA		x		=	$	-
120143	Temporary Pavement Delineation	LF		x		=	$	-
12016X	Channelizer	EA		x		=	$	-
128650	Portable Changeable Message Signs	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF	241,824	x	8.00	=	$	1,934,592
129100	Temp. Crash Cushion Module	LS	1	x	100,000.00	=	$	100,000
129099A	Traffic Plastic Drum	EA		x		=	$	-
839603A	Temporary Crash Cushion (ADIEM)	EA		x		=	$	-
XXXXXX	Some Item							

Subtotal Stage Construction and Traffic Handling *$ 3,840,592*

TOTAL TRAFFIC ITEMS **$ 9,999,100**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

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

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1-7 $ 69,302,900

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
	ADA Items				0.5%	$	346,515
8B - Bike Path Items							
	Bike Path Items				0.0%	$	-
8C - Other Minor Items							
	Other Minor Items				0.0%	$	-
	Total of Section 1-7	$	69,302,900	x	0.5%	= $	346,515

TOTAL MINOR ITEMS $ 346,600

SECTIONS 9: MOBILIZATION

(included as part of contingency)

Item							
999990	Total Section 1-8	$	69,649,500	x	0%	= $	-

TOTAL MOBILIZATION $ -

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)		Cost
066015	Federal Trainee Program	LS		x		= $	-
066063	Traffic Management Plan - Public Informati	LS	1	x	90,000.00	= $	90,000
066090	Maintain Traffic	LS		x		= $	-
066094	Value Analysis	LS		x		= $	-
066204	Remove Rock & Debris	LS		x		= $	-
066222	Locate Existing Cross-Over	LS		x		= $	-
066670	Payment Adjustments For Price Index Fluc	LS		x		= $	-
066700	Partnering	LS		x		= $	-
066866	Operation of Existing Traffic Management S	LS		x		= $	-
066920	Dispute Review Board	LS		x		= $	-
	*Cost of **NPDES** Supplemental Work specified in Section 5C*					= $	-
	Total Section 1-8	$	69,649,500		0%	= $	-

TOTAL SUPPLEMENTAL WORK $ 90,000

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066063	Public Information	LS		x		=	$0
066105	RE Office	LS	1	x	304,000.00	=	$304,000
066803	Padlocks	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066901	Water Expenses	LS		x		=	$0
066062A	COZEEP Expenses	LS	1	x	970,000.00	=	$970,000
06684X	Ramp Meter Controller Assembly	LS		x		=	$0
06684X	TMS Controller Assembly	LS		x		=	$0
06684X	Traffic Signal Controller Assembly	LS		x		=	$0
XXXXXX	Freeway Service Patrol	LS	1	x	916,000.00	=	$916,000

Total Section 1-8	$	69,649,500	0%	=	$	-

TOTAL STATE FURNISHED $2,190,000

SECTION 12: TIME-RELATED OVERHEAD (included as part of contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD		X		=	$0

TOTAL TIME-RELATED OVERHEAD $0

SECTION 13: CONTINGENCY

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

Total Section 1-11	$	71,929,500	x 25%	=	$17,982,375	

TOTAL CONTINGENCY $17,982,400

SCOPING TEAM FIELD-REVIEW ATTENDANCE ROSTER

ATTACHMENT – N

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DISTRICT 7
Office of Project and Special Studies

FIELD SCOPING MEETING ATTENDANCE RECORD

Subject: ***2R Project on I -210: EA 30960K / 0714000299 (R0.0/R9.6)***

Date & Time: ***August 12, 2014 @ 9 AM***

Place: ***Park and Ride at Foothill Boulevard and Paxton Street in the City of Pacoima***

	Name (print)	Phone	Organization/Functional Unit	Email address
1	Ken Yip	(213)-897-0076	Project & Special Studies	KYip @ DOT. CA.GOV
2	Siew Mei Tan	(213) 897-5995	OPSS	siew_mei_tan@dot.ca.gov
3	Moe Mirza	213-897-1940	Proj B	mvemirza@dot.ca.gov
4	DAN TRAN	213-897-0969	" "	DAN_TRAN @DOT.CA.GOV
5	Hugo Guzmán	(213) 400 1454	MTCE - Engineering	hugo.guzman@dot.ca.gov
6	Gaston Okenke	(213) 897-2667	MTce Engineering	gozikan@aol.com
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

SHOPP PROJECT PERFORMANCE OUTPUT

ATTACHMENT – O

SHOPP Project Performance Output

Update Date: 04/10/15	Source		Program	Fiscal	RTL	Programming Information ($1,000)					
District - County - Rte -PM	**EA**	**PPNO**	**Code**	**Year**	**Date**	**R/W**	$228	**Construction**	$ 89,912	**Support**	$ 21,000
07-LA-210-PM R0.0-R9.7	30960K	4801	201.122	2016	10/25/18	**Project Manager:** Mirna Dagher					
Location: On I-210 between I-5 and Wheatland Ave Undercrossing						**HQ Program Manager:** Leo Mahserelli					
Project Description: Pavement Rehabilitation (2R)											

PROGRAM	ACCT. CODE 20.XX.	Quantity of Performance Output						CCA	After Construction	PERFORMANCE Units
		Ten Year Plan	PID		PA&ED	RTL				
Approval Date			6/30/15	Output Cost ($1,000)			Output Cost ($1,000)			
Construction Cost ($1,000)			$ 89,912							
Right of Way Cost ($1,000)			$ 228							
Support Cost ($1,000)			$ 21,000							
EMERGENCY RESPONSE										
Major Damage Restoration	201.130									Locations
Permanent Restoration	201.131									Locations
COLLISION REDUCTION										
Safety Improvements	201.010									Collision Reduce
Collision Severity Reduction	201.015									Collision Reduce
Median Barrier Upgrade	201.020		9.7	$ 2,635						Centerline Miles
MANDATES										
Relinquishments	201.160									Lane Miles
Noise Attenuation for Schools	201.270									Locations
Railroad	201.325									Locations
Hazardous Waste Mitigation	201.330		1	$ 278						Locations
Storm Water	201.335			$ 1,440						Acres Treated / Pollutant
ADA Compliance	201.361		54	$ 346						Curb Ramps
SHOPP TEA	201.736									Locations
BRIDGE PRESERVATION										
Bridge Rehabilitation	201.110									Bridges
Bridge Scour Mitigation	201.111									Bridges
Bridge Rail Replacement/Upgrade	201.112									Linear Feet
Bridge Seismic Restoration	201.113									Bridges
Bridge Widening	201.114									Bridges
Trans Permit Requirements for Bridges	201.322									Bridges
ROADWAY PRESERVATION										
Roadway Rehabilitation (3R)	201.120									Lane Miles
Pavement Preservation (CAPM)	201.121									Lane Miles
Pavement Rehabilitation (2R)	201.122		52	$ 76,393						Lane Miles
Long-Life Pavement Corridors (4R)	201.125									Lane Miles
Roadway Protective Betterment	201.150									Locations
Drainage System Restoration	201.151		1	$ 1,200						Locations
Signs and Lighting Rehabilitation	201.170		21	$ 4,645						Signs
										Light Fixtures
MOBILITY										
Operational Improvements	201.310									Daily Vehicle Hours of delay
Transportation Management Systems	201.315		1	$ 1,807						Field Elements
										Miles of fiber
Truck Inspection & WIM Facilities	201.321									Locations
ROADSIDE PRESERVATION										
Highway Planting Restoration	201.210									Acres
Freeway Maintenance Access	201.230									Locations
Roadside Enhancement	201.240									Locations
Beautification and Modernization	201.245									Centerline Miles
Safety Roadside Rest Area Restoration	201.250									Locations
New Safety Roadside Rest Areas	201.260									Locations
FACILITIES										
Equipment Facilities	201.351									Locations
Maintenance Facilities	201.352									Locations
Office Buildings	201.353									Locations
Materials Lab	201.354									Locations
Additional Performance Units										
Bridge Approach Slab Replacement			11	$ 40						Locations
Safety Improvement										
Roadside Enhancement										
Metal Beam Guardrail upgrade			1	$ 1,128						Field Elements
Paved Median Shoulders										

RISK REGISTER

ATTACHMENT – P

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

RISK REGISTER CERTIFICATION (ACCOUNTABILITY CHECKPOINTS)
Form PM-0001 (Rev. 4/2013)

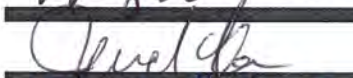
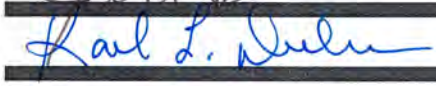
The risk register is to approved and signed-off by the deputies* listed below for all scalability levels. By signing
this form, you are certifying that you have reviewed the risks documented in the register and agree that they have
been managed to the extent possible by the PDT.

Project Information	☑ Capital Project ☐ Major Maintenance Project (Check One)
Project ID/District-EA	EFIS ID:0714000299/EA:07-30960
Project Description	LA-210-0/9.1-PAVEMENT PRESERVATION
Project Manager (PM)	DAGHER, MIRNA G
Project Risk Manager (for Risk Level 3 Projects)	

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

Project Manager Signature  Date: 4-9-15

PID (Recommended for Capital Projects Only excluding Minor Projects)

Project Manager		Date: 4-9-15
Deputy District Director, Planning		Date: 4-26-15
Deputy District Director*, Design**		Date: 4-26-15
Deputy District Director, Project Management		Date: 4/30/15

PA&ED (Required for Capital Projects Only)

Project Manager		Date:
Deputy District Director*, Environmental		Date:
Deputy District Director*, Design**		Date:
Deputy District Director, Project Management		Date:

Project Risk Register for 30960 as of 04/09/15

Save to Excel

No.	Status*	ID	Risk Type	RBS Category	WBS Impacted	Critical Path Impacted?	Title	Risk Statement	Impact Description	Linear/ Non-Linear	Risk Probability	Risk Impact	Impact Consequence Cost/Time	Cost/ Time Score	Cost $K (Low)	Cost $K (Most Likely)	Cost $K (High)	Probable Cost Impact ($K)	Time in Mos (Low)	Time in Mos (Most Likely)	Time in Mos (High)	Probable Time Impact (Mos.)	Rationale (for Rating)*	Response Strategy	Response Action	Mitigation Option (Minimize Prob or Impact)	Risk Triggers	Residual Risks	Secondary Risks	Risk Interaction	Risk Owner	Comment 4	Last Updated
1	Active	23868	Thr	CON	5.270.20		Hazardous waste	Late discovery of aerially deposited lead	Delay schedule and increase cost.	Linear	10-19%	Moderate	Cost	6 (LOW)	500	0	1000	72.5						Avoid	Check project area for possible contamination prior to construction	Impact					Rafael Molina		04/09/2015 10:29:00
2	Active	23869	Thr	CON	5.270		Utility	Unidentified utilities	There is no R/W takes on this Project. But due to the nature of the Project additional potholing might be necessary during construction and R/W capital is needed which cannot be secured during construction.	Linear	10-19%	Low	Cost	4 (LOW)	20	0	500	25.13						Avoid	Included additional R/W capital funds for potholing.	Probability					Mirna Daghier		04/09/2015 10:56:00
3	Active	23870	Thr	RoW	4.225		Relocation	Utility relocation requires more time than planned.	Encounter unidentified utilities, delay schedule and increase cost.y	Linear	10-19%	Low	Cost	4 (LOW)	500	0	1000	72.5						Mitigate	Review possible utility conflicts with all utility owners. Perform potholing prior to construction.	Probability					Oji Kalu		04/09/2015 10:29:00
4	Active	24134	Thr	DGN	3.260.90		ADA	Unable to meet Americans with Disabilities Act requirements	Project will be delayed.	Linear	1-9%	Very Low	Time	1 (LOW)					1	0	6	0.12		Avoid	Elevate issue early on	Probability					Oji Kalu		04/09/2015 11:07:00
TOTAL EXPECTED IMPACT																		$170.13(K)				0.12 (Mos.)										

ATTACHMENT 3

TYPICAL CROSS SECTIONS

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
4. EXACT LOCATIONS AND STRUCTURAL SECTION OF INDIVIDUAL PRECAST SLAB REPLACEMENT (IPSR) WILL BE DETERMINED BY THE ENGINEER. SEE QUANTITY SHEETS FOR LIMITS.
5. SEE QUANTITY SHEETS FOR LIMITS OF GRIND EXISTING CONCRETE PAVEMENT. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER. APPROACH SLABS AND BRIDGE DECKS ARE EXCLUDED FROM GRINDING.

ABBREVIATIONS:

ATB	- ALTERNATE TREATED BASE.
LCB	- LEAN CONCRETE BASE.
JPCP	- JOINTED PLAIN CONCRETE PAVEMENT.
JPCP-RSC	- JOINTED PLAIN CONCRETE PAVEMENT-RAPID STRENGTH CONCRETE.
RHMA-G	- RUBBERIZED HOT MIX ASPHALT (GAP GRADED)
Aux	- AUXILIARY
ISR	- INDIVIDUAL SLAB REPLACEMENT

DESIGN DESINATION

ADT	(2013)	55,502	D	67%
ADT	(2023)	63,600	T	9%
DHV		25,000	V	70 mph
ESAL		70,250,000	TI	15

PAVEMENT CLIMATE REGION

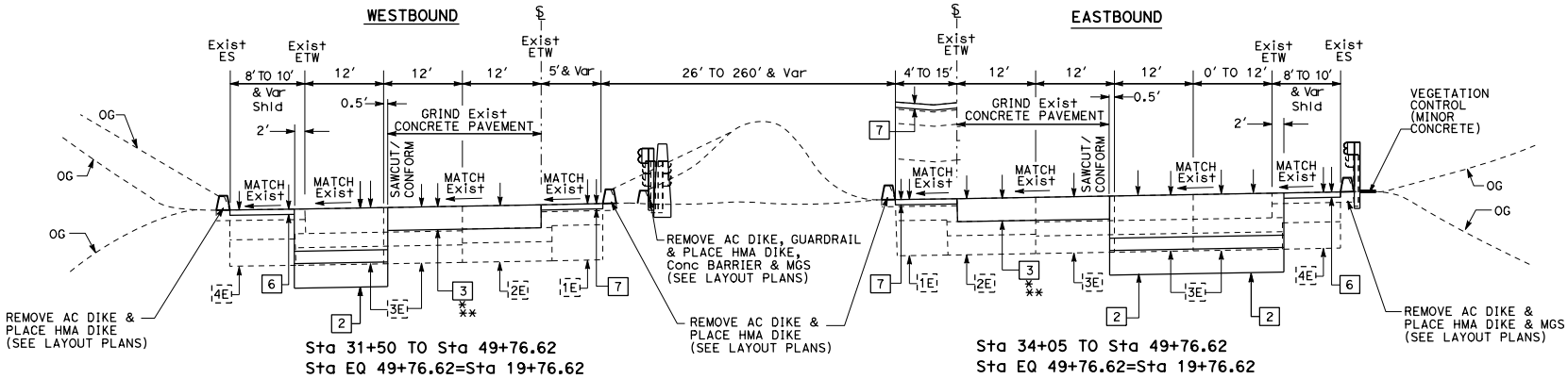
INLAND VALLEY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA



CONNECTORS
ROUTE 210

TYPICAL PAVEMENT STRUCTURES

1
- 1.20' JPCP
- ---- BASE BOND BREAKER
- 0.35' ATB
- 0.70' CLASS 3 AB
- ---- SUBGRADE ENHACEMENT GEOTEXTILE

2
- 1.20' JPCP-RSC
- ---- BASE BOND BREAKER
- 0.35' ATB

3
- 0.70' JPCP-RSC

4
- 0.85' JPCP
- ---- BASE BOND BREAKER
- 0.35' LCB

5
- 0.25' COLD PLANE AC Pvmt
- 0.25' HMA-G

6
- 0.15' COLD PLANE AC Pvmt
- 0.15' RHMA-G

7
- 0.20' COLD PLANE AC Pvmt
- 0.20' HMA-G

EXISTING STRUCTURAL SECTIONS

1E
- 0.20' AC
- 0.40' CLASS 2 AB
- 1.00' AS

2E
- 0.65' PCC
- 0.40' CLASS A CTB
- 0.55' CLASS 3 AB

3E
- 0.70' PCC
- 0.40' CLASS A CTB
- 0.50' CLASS 3 AB

4E
- 0.30' AC
- 0.55' CLASS 2 AB
- 0.75' AS

5E
- 0.20' AC

6E
- 0.25' AC (TYPE B)
- 0.45' CLASS 2 AB
- 1.30' CLASS 4 AS

7E
- 0.70' PCC
- 0.40' CLASS A CTB
- 0.30' CLASS 3 AB
- 0.60' CLASS 4 AS

8E
- 0.65' AC

9E
- 0.85' AC

10E
- 0.65' PCC
- 0.45' CLASS A CTB
- 0.55' CLASS 3 AB

11E
- 0.70' PCC
- 0.45' CLASS A CTB
- 0.50' CLASS 3 AB

12E
- 0.20' AC (TYPE B)
- 0.45' CLASS 2 AB
- 1.00' CLASS 4 AS

13E
- 0.25' AC (TYPE B)
- 0.50' CLASS 2 AB
- 0.90' CLASS 4 AS

14E
- 0.35' AC (TYPE B)
- 0.65' CLASS A CTB
- 0.40' CLASS 3 AB
- 0.60' CLASS 4 AS

15E
- 0.20' AC (TYPE B)
- Var CLASS 3 AB
- 0.60' CLASS 4 AS

16E
- 0.80' AC (TYPE B)
- 1.20' CLASS 2 AB

17E
- 0.35' AC (TYPE B)
- 0.70' CLASS A CTB
- 0.25' CLASS 3 AB
- 0.75'& Var CLASS 4 AS

18E
- 0.25' AC (TYPE B)
- 0.50' CLASS 2 AB
- 1.30'& Var CLASS 4 AS

* SEE SUMMARY OF QUANTITIES FOR LOCATION OF JPCP-RSC
** GRIND Exist CONCRETE PAVEMENT

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY | FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 19-SEP-2017 | TIME PLOTTED => 09:53

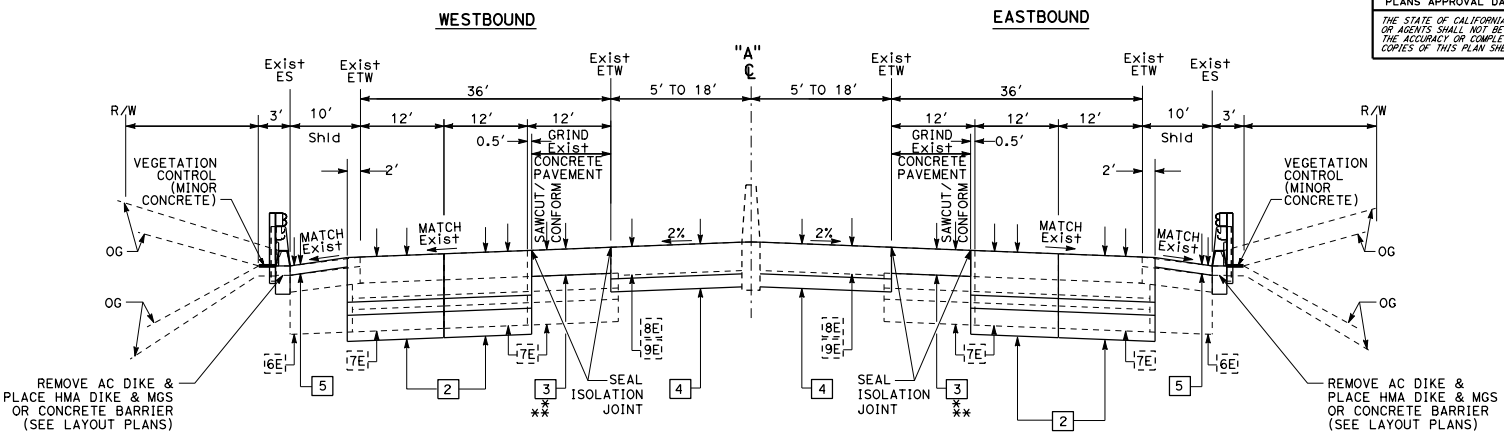
BORDER LAST REVISED 7/2/2010 | USERNAME => s118056 | DGN FILE => 730960cd001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

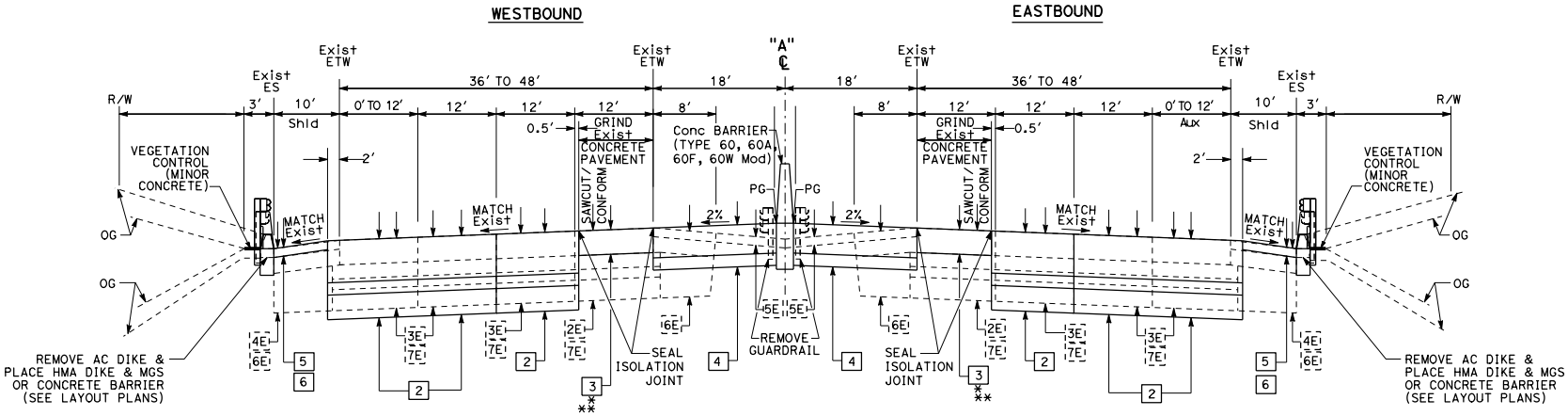
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA



ROUTE 210

"A" Sta 75+00 TO Sta 262+00



ROUTE 210

"A" Sta 19+76.62 TO Sta 75+00

TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

CHECKED BY

REVISED BY

DATE REVISED

LAST REVISION 00-00-00

DATE PLOTTED => 19-SEP-2017

TIME PLOTTED => 09:53

BORDER LAST REVISED 7/2/2010

USERNAME => s118056

DGN FILE => 730960ca002.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

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.

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

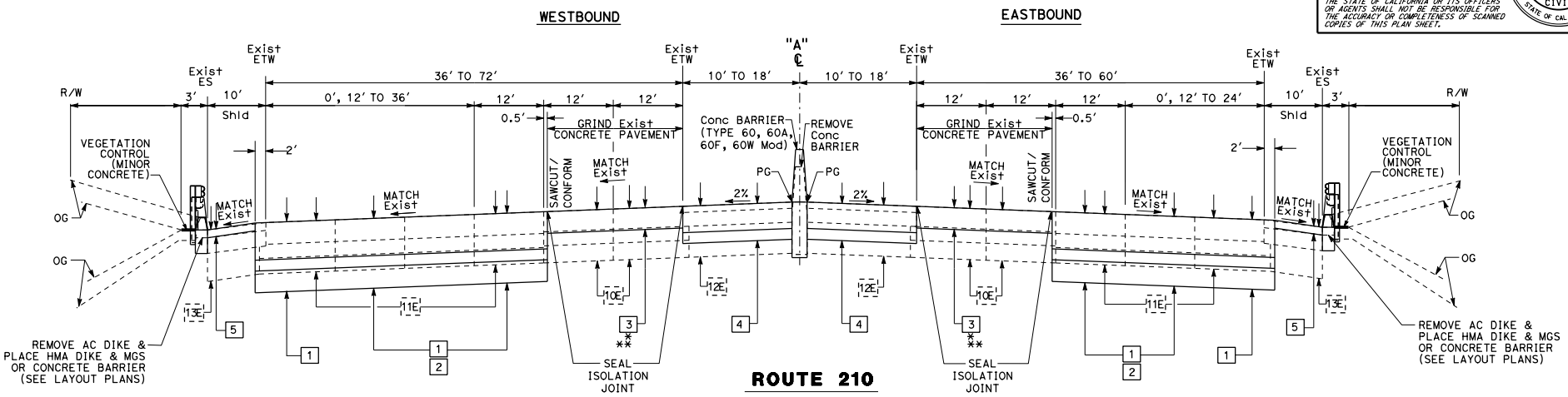
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

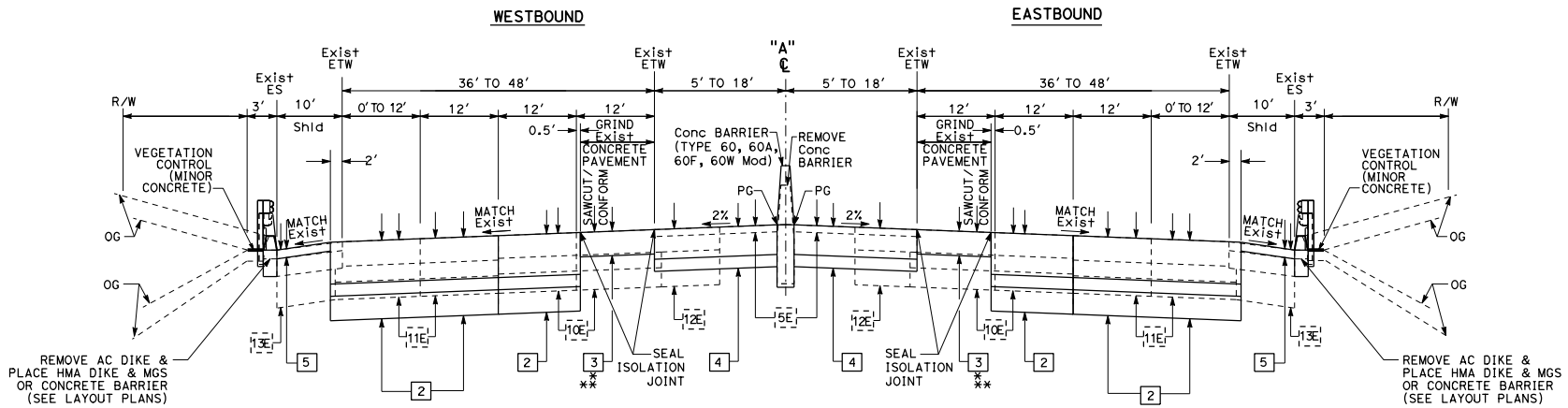
CHECKED BY

REVISED BY	DATE REVISED



ROUTE 210

"A" Sta 311+83 TO Sta 512+00



ROUTE 210

"A" Sta 262+00 TO Sta 311+83

TYPICAL CROSS SECTIONS

NO SCALE

X-3

LAST REVISION 00-00-00
DATE PLOTTED => 19-SEP-2017
TIME PLOTTED => 09:53

BORDER LAST REVISED 7/2/2010

USERNAME => s118056
DGN FILE => 730960cd003.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 00000000001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

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.

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

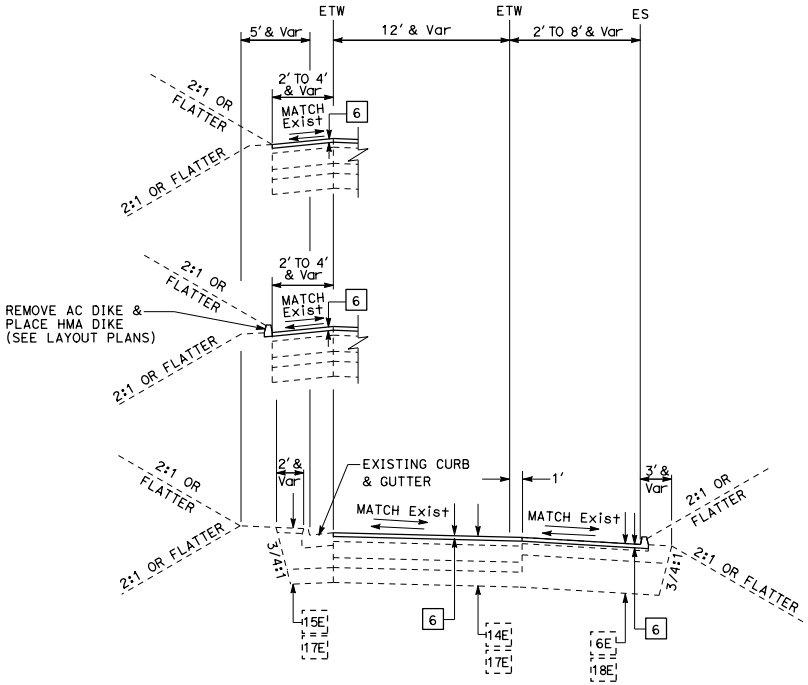
REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

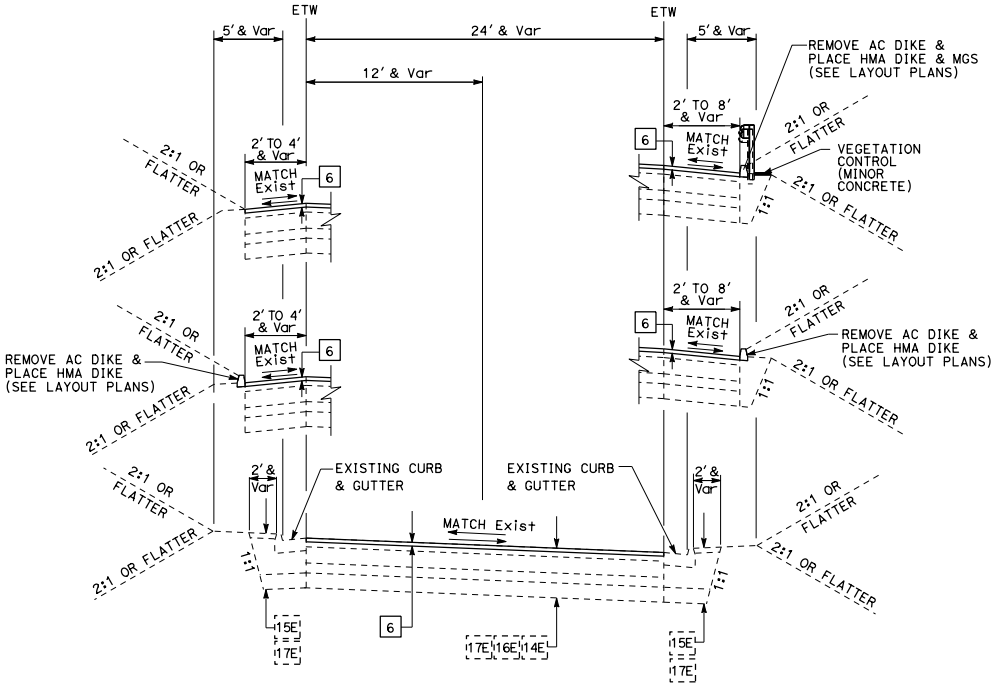
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



ROUTE 210

ONE LANE RAMPS



ROUTE 210

TWO LANE RAMPS

TYPICAL CROSS SECTIONS

NO SCALE

X-4

LAST REVISION 00-00-00 | DATE PLOTTED => 19-SEP-2017 | TIME PLOTTED => 09:53

BORDER LAST REVISED 7/2/2010 | USERNAME => s118056 | DGN FILE => 730960cd004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 00000000001

ATTACHMENT 4

RIGHT OF WAY DATA SHEETS

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

M e m o r a n d u m

Serious Drought!
Help Save Water!

To: Kalu Oji , Design Manager
Office of Design
District 7, Los Angeles Office

From: Dan Murdoch, Office Chief
Right of Way Appraisals, and Planning & Management
District 7, Los Angeles Office

Date: 9/21/2017
EA: 309601
Data Sheet ID NO: ds2811
Project ID # 0714000299

Subject: Current Estimated Right of Way Costs for **Project Report**

We have completed an estimate of the Right of Way costs for the above referenced project based on information received from Nguyen My-huong PE and the following assumptions and limiting conditions apply:

- The mapping did not provide sufficient detail to determine the limits of the right of way required.
- The transportation facilities have not been sufficiently designed, so our estimator could not determine the damages to any of the remainder parcels affected by the project.
- Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the estimate.

Right of Way Certificate (RWC) lead time will require a minimum of NA after maps to appraisal **(MA).** Completed Appraisal maps include HMDD, COS, HW Memo, and RE-49. An executed copy of the new freeway agreement if required for the project. When utility relocation is warranted, utility conflict maps will be required. Additionally a minimum of NA will be required after receiving the last revision to the appraisal map. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be file and present a risk to the RWC project delivery milestone. Due to the passage of Map 21 and the Buy America provision, the Right of Way Certification process will be longer, if Utility Relocation is necessary.

Current Schedule: PRSM

PAED (M 200)	MA (M 224)	RWC (M 410)	RTL (M 460)	CCA (M 600)
9/30/2017	11.8.2017	2/15/2019	3/28/2019	1/5/2023

TO **Kalu Oji**
ATTN **Nguyen My-Huong**
SENIOR R/W P&M **Dagher Mirna**
ROUTE 210
PM_KM R 0.0/R 9.7
EA 309601
Project ID #
ALT

R/W DATA SHEET

ID NO ds2811

Date of Data Sheet 9/21/2017

Project Description RWY Rehab and lane replacements.

This cost estimate is valid for the above scoping report only. This is an estimate only and not an appraisal. It may be based on worse case scenarios.
The estimate is subject to change and revision.
The mapping did not provide sufficient nor adequate detail to determine the limits of thr Right of Way required and effects on the improvements.
The transportation facilities have not been sufficiently designed for our estimator to determine the damages to any of the remainder parcels affected by the project.

This cost estimate is pursuant to the following responses supplied by Kalu Oji to the Data Sheet Request Form.

	YES	NO	Not known at this time
Utilities are depicted on plans	X		
Railroads are depicted on plans		X	
There are Material and/or Disposal Sites Required		X	
Caltrans will do the Right of Way work	X		
There will be a Cooperative Agreement		X	
This is a reimbursable project		X	
There is Hazardous Waste potential		X	

RW COST ESTIMATE

	CURRENT VALUE	ESCALATED VALUE
R/ w acq.(incl.contingency G.w-condem.-adm.s'tl.)Permits		
Clearance	No Right of Way	
RAP (cont rate.)		
Escrow costs (cont rate.)		
Utility relocation costs	**$324,000**	**$486,924**
Estimate of Reimbursed Appraisal Fee		
Total estimated cost	**$324,000**	**$486,924**

Escalation Rate Rw .07
Escalation Rate Utilities .08
Cert.date 2/15/19

Data Sheet ID NO: ds2811
ROUTE 210
PM_KM R 0.0/R 9.7
EA 309601
ALT

Parcel Count and Py Info

PARCEL TYPES	DUAL APPR.
A	
B	
C	
D	
F	

RIGHTS NEEDED	
FEE	
EASE	
TCE	

TAKES	
FULL	
PART	
TOTAL	

DISPLACEMENT OF UNITS	
SFR	
BUS	
MULTI	

PARCELS WITH RAP	POTENTIAL CLEARANCE PARCELS	POTENTIAL CONDEMNATION PARCELS	POTENTIAL EXCESS PARCELS

UTILITY IMPACTS	
u4-1	
u4-2	
u4-3	
u4-4	**4**
u5-7	
u5-8	
u5-9	**4**

Estimate Of Right Of Way Support Hours

Activity Codes	Function	Hours
225 & 245	Appraisals	
225 & 245	Acquisitions	
200	Utilities	1,720
185.20.40	Utility Potholing	495
205	Railroads	
225 & 245	Condemnation	
225 & 245	Clearance	
225 & 245	Relocation	
220 & 300	RW Engineering	
	Total	**2,215**

UTILITY INFORMATION

Please See the Utility Conflict Addendum for Complete Utility Information

Are utility easements required? No

Are Utility agreements required? Yes

Total Current Cost $324,000

Const. Completion Date 1/5/2023

Utility Escalation Rate 8%

Total Escalated Cost $486,924

Data Sheet ID NO: ds2811

ROUTE 210

PM_KM R 0.0/R 9.7

EA 309601

ALT

RR INFORMATION

Are RR affected: None

Describe affected RR: None

When Branch Lines Or Spurs Are Affected ,would Acquisition And Or Payment Of Damages To Businesses And Or Industries Served By The Railroad Facility Be More Cost Effective Than Service Contracts ,or Grade Separations Requiring Construction And Maintenance Agreements Involved?

0

Explain Branch lines: NA

Discuss Types Of Agreements And Rights Required From The Railroads. Are Grade Xing Requiring Service Contracts ,or Grade Separations Requiring Construction And Maintenance Agreements Involved.

NA

RAILROAD COST PERTAINING TO CONSTRUCTION ACTIVITY: $0

The cost of flagging related to project construction activity is a Phase 4 cost (construction contract cost). Though noted on the RW data sheet, the estimated flagging cost is not a RW cost, and is not a part of RW Capital.. The estimate is provided so it can be added to the engineer's estimate for construction -- the RR flagging estimate is based on days needed for construction activity.

		DATE
Right of Way Estimate prepared by	**Victor Lee**	**9/21/17**
Railroad Estimate prepared by	**Dan Murdoch**	**9/21/17**
Utilities Estimate prepared by	**Victor Lee**	**9/21/17**

I have personally reviewed this R/W Data Sheet and all supporting information I certify that the probable highest and best use estimated values and assumptions are reasonable and proper subject to the limiting conditions set forth and I find this Data Sheet complete and current.

This Data Sheet is not to be signed by Chief unless accompanied by final scoping report(PR,PSR,PSSR) for review and/or signature.

CHIEF _____ _____

Utility Conflicts
Id- ds2811
EA- 309601

	Description	Quantity	$/Unit	Total Cost
1	6" CI WTR LADWP(W) TYLER POC - 2 POTHOLES (MGS)	2	3000	6000
2	4" Du PWR LADWP(P) TYLER POC - 2 POTHOLES (MGS)	2	3000	6000
3	4-5" Du AND 4-4" Du PWR (LADWP)POLK ST - 4 POTHOLES (CR)	4	3000	12000
4	3"/4" GAS SCG POLK ST - 6 POTHOLES (CR)	6	3000	18000
5	2-4" Du AND 4-5" Du PWR LADWP(P) HUBBARD ST - 4 POTHOLES	4	3000	12000
6	6 H "/8" GAS SCG HUBBARD ST - 7 POTHOLES (CR) (H)	7	3000	21000
7	BUR CA TEL FRONTIER HUBBARD ST - 2 POTHOLES (CR)	2	3000	6000
8	6-5" Du PWR LADWP (P) MACLAY ST - 4 POTHOLES (CR) (H)	4	3000	12000
9				0
10	6-5" and 8-5" Du LADWP(P) FOOTHILL BLVD - 4 POTHOLES (#46-	4	3000	12000
11	4-6",2-5" and 2-3" LADWP(P) FOOTHILL BLVD - 4 POTHOLES(#46-	4	3000	12000
12	8" MCP GAS SCG FOOTHILL BLVD - 9 POTHOLES (H)	4	3000	12000
13	ADJUST TO GRADE- (2) PULL BOXES (YARNELL) (#2,#5)	2	5000	10000
14	RELOCATE - (1) UTILITY BOX (YARNELL) (#6)	1	5000	5000
15	ADJUST TO GRADE - (8) PULL BOXES (ROXFORD) (#7,#10,#11,	8	5000	40000
16	RELOCATE- (1) FIRE HYDRANT (ROXFORD) (#11)	1	25000	25000
17	ADJUST TO GRADE - (11) PULL BOXES (POLK) (#15 - #19 &(#21,	11	5000	55000
18	ADJUST TO GRADE - (11) PULLBOXES (HUBBARD) (#26 - #30)	11	5000	55000
19	ADJUST TO GRADE - (1)SWR MANHOLE (HUBBARD) (#23)	1	5000	5000
20	ADJUST TO GRADE - (1) HAND HOLE (HUBBARD) ((#28)	1		0
21	RELOCATE - (1) UTILITY BOX (HUBBARD) (#25)	1		0
22	ADJUST TO GRADE -(15) PULL BOXES (MACLAY (#31 - #35) &	15		0
23	ADJUST TO GRADE - (1) HAND HOLE (MACLAY) (#34,#36,#37,	1		0
24	RELOCATE - (1) UTILITY BOX (MACLAY) (#32)	1		0
25	ADJUST TO GRADE - (14) PULL BOXES (PAXTON) (#39 - #45)	14		0
26	ADJUST TO GRADE - (2) DRAINAGE MANHOLE (PAXTON) (#40 -	2		0
27	ADJUST TO GRADE - (5) PULL BOXES (FOOTHILL) (#46,#51,#52,	5		0
28	ADJUST TO GRADE - (2) HAND HOLE (FOOTHILL) (#47,#49)	2		0
29	ADJUST TO GRADE - (8) PULL BOXES (WHEATLAND) (#54-#58)	8		0
30	ADJUST TO GRADE - (1) DRAINAGE MANHOLE (WHEATLAND)	1		0
31	3" GAS SCG PAXTON - 7 POTHOLES (#39 - #43) WESTSIDE OF	4		0
32	8" WTR LADWP FOOTHILL - 4 POTHOLES (#48,#49)	4		0
33	6-5" AND 2-3" PWR LADWP FOOTHILL - 4 POTHOLES (H)	4		0
34	4" GAS SCG FOOTHILL - 2 POTHOLES (#46,#47)	4		0
35				0

Utility Conflicts
Id- ds2811
EA- 309601

	Description	Quantity	$/Unit	Total Cost
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				

ATTACHMENT 5

PRELIMINARY COST ESTIMATE WORKSHEET

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE	07-LA-210
Type of Estimate (Pre-PSR, PSR, PR, etc.):	SPSSR
Program Code:	SHOPP
PM	R0.0/R9.7
EA	309600
PP NO.	4801

Project Description: Bridge Rehabilitaion

Limits: On Route Interstate 210 from Interstate 5 (PM R0.0) to Wheatland Ave Undercrossing (PM R9.7)

Proposed Improvement (Scope): Roadway Rehabilitation
Pavement Rehabilitation for mainline as well as on/off-ramps, connectors, and adjacent shoulders. Upgrade various highway appurtenances and facilities.

Alternate:

TOTAL ROADWAY ITEMS		$ 114,061,000
TOTAL STRUCTURE ITEMS		$
SUBTOTAL CONSTRUCTION COSTS		$ 114,061,000
RIGHT OF WAY (Escalated Value)		$
TOTAL PROJECT CAPITAL OUTLAY COSTS		$ 114,061,000
5% ESCALATION		$ 119,764,050
	USE	$ **120,000,000**

Reviewed by Design Manager Signature _____ 9/28/2017 Date

Approved by Project Manager Signature _____ 9/28/2017 Date

ATTACHMENT 5

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE	07-LA-210
KP(PM)	R0.0/R9.7
EA	309600
PP NO.	4801

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Clearing & Grubbing	1	LS	$50,000.00	$50,000	
Roadway Excavation	281,126	CYD	$15.00	$4,216,890	
			Subtotal Earthwork		$4,266,890

Section 2 Structural Section*					
Rubberized HMA (Gap Graded)	15,802.46	TON	$125.00	$1,975,308	
Class 3 Aggregate Base	25,947.96	CYD	$25.00	$648,699	
Lean Concrete Base Rapid Setting	9,724.00	CYD	$250.00	$2,431,000	
Cold Plane Asphalt Conc Pavement	293,534.00	SQYD	$0.90	$264,181	
Remove Conc	5,488.00	SQYD	$16.00	$87,808	
Alternate Treated Base	36,791.09	CYD	$95.00	$3,495,153	
Geosynthetic Pavement Interlayer (Bond Bre	476,398.00	SQYD	$1.00	$476,398	
Jointed Plain Conc Pavement	100,268.72	CYD	$150.00	$15,040,308	
Jointed Plain Conc Pavement (RSC)	81,658.65	CYD	$400.00	$32,663,461	
Seal Pavement Joint	69,428.60	LF	$8.00	$555,429	
Individual Slab Replacement (RSC)	6,000.00	CYD	$400.00	$2,400,000	
Grind Existing Concrete Pavement	358,640.00	SQYD	$5.00	$1,793,200	
Saw Cut Asphalt Concrete Pavement	13,766.00	YD	$3.00	$41,298	
SEG	288,074.00	SQYD	$2.00	$576,148	
			Subtotal Structural Section Items		$62,448,390

Section 3 Drainage					
Drainage Facilities	1	LS	$6,976,000	$6,976,000	
			Subtotal Drainage		$6,976,000

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE	07-LA-210
KP(PM)	R0.0/R9.7
EA	309600
PP NO.	4801

Section 4 Specialty Items	Quantity	Unit	Unit Price	Unit Cost
Transition Railing (WB-31)	42	EA	$2,200	$92,400
Terminal System (Type CAT)	1	EA	$3,500	$3,500
End Anchor Assembly	175	LF	$600	$105,000
Concrete Barrier	47913	LF	$55	$2,635,215
Midwest Guardrailing System	26,487	LF	$35	$927,045
Highway Planting	1	LS	$50,000	$50,000
Irrigation System	1	LS	$25,000	$25,000
Hazardous Waste (Striping Removal)	1	LS	$170,720	$170,720
Contaminated Soil Disposal	1	LS	$100,000	$100,000
Lead Compliance Plan	1	LS	$7,000	$7,000
Construction Site BMPs	1	LS	$1,237,500	$1,237,500

Subtotal Specialty Items $5,353,380

Section 5 Traffic Items				
Maintain Electrical System During Construc	1	LS	$20,000	$20,000
Modify Existing Electrical System	1	LS	$4,868,000	$4,868,000
Remove Sign Structure	33	EA	$4,000	$132,000
Install Sign Structure (1 Post)	26	EA	$120,000	$3,120,000
Install Sign Structure (2 Post)	6	EA	$240,000	$1,440,000
Roadside Sign	1	LS	$40,000	$40,000
Upgrade Sign Panels	17,200	SQFT	$25	$430,000
Permanent Pavement Delineation	1	LS	$700,000	$700,000
Construction Area Signs	1	LS	$25,000	$25,000
Traffic Control System	1	LS	$160,000	$160,000
Temporary Railing (Type K)	241,824	LF	$8	$1,934,592
Temporary Crash Cushion	300	EA	$250	$75,000

Subtotal Traffic Items $12,944,592

SUBTOTAL SECTIONS 1-5 $91,989,252

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE	07-LA-210
KP(PM)	R0.0/R9.7
EA	309600
PP NO.	4801

Section 6 Minor Items Based On Item Costs				Unit Cost	Section Cost
			TOTAL MINOR ITEMS		$363,930
Section 7 Roadway Mobilization					
Subtotal Sections 1-5	$91,989,252				
Minor Items	$363,930				
Sum	$92,353,182	X	5.00% (5% - 10%)	$4,617,659	
			TOTAL ROADWAY MOBILIZATION		$4,617,659
Section 8 Roadway Additions Supplemental Based On Item Costs					
Sum					$3,237,000
Contingencies & TRO					
Subtotal Sections 1-5	$91,989,252				
Minor Items	$363,930				
Sum	$92,353,182	X	15.00% ( )*	$13,852,977	
			TOTAL ROADWAY ADDITIONS		$17,089,977
			TOTAL ROADWAY ITEMS		$114,060,819
			(Total of sections 1-8)		$114,060,819
			USE		**$114,061,000**

Estimate Prepared By Quang Thai Phone # 72762 Date 9/28/2017

Estimate Checked By [signature] Phone # 7-9410 Date 9-28-2017

	PSSR		Escalated	SUPPLEMENTAL			Escalated	CHANGE
1	earth	4,266,900	4,939,470	1	earthwork	4,266,890	4480234.5	-459,236
2	pavement	48,280,900	55,891,177	2	structural s	62,448,390	65570809.5	9,679,633
3	drainage	1,200,000	1,389,150	3	drainage	6,976,000	7324800	5,935,650
4	specialty	3,770,200	4,364,478	4	specialty	5,353,380	5621049	-810,716
5	environ	1,785,800	2,067,287				0	
6	traffic	9,999,100	11,575,208	5	traffic	12,944,592	13591821.6	2,016,613
7	detour	0	0				0	
8	minor	346,600	401,233	6	minor	363,930	382126.5	-19,106
9	rd mobiliza	0	0	7	rd mob	4,617,659	4848541.95	4,848,542
10	supp	90,000	104,186	8	supp/state	3,237,000	3398850	759,465
11	state	2,190,000	2,535,199				0	
12	conting	17,982,400	20,816,876		cont/TRO	13,852,977	14545625.85	-6,271,250
13	overhead		0				0	
		89,911,900	104,084,263			114,060,818	119763858.9	15,679,596
			0				0	
	remaining i	24,875,900	28,796,964			21,720,797	22806836.85	-5,990,127

ATTACHMENT 6

CATEGORICAL EXEMPTION / CATEGORICAL EXCLUSION

CATEGORICAL EXEMPTION/PROGRAMMATIC CATEGORICAL EXCLUSION DETERMINATION FORM

07-LA-210	R0.0/R9.7	309600	0714000299
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

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

Caltrans proposes a roadway resurfacing and rehabilitation project along 9.7 miles of I-210, including the ramps, connectors, and adjacent shoulders. The scope of work would consist of replacing damaged concrete slabs in lane numbers one and two; rebuilding lane numbers three and four with concrete pavement; reconstructing median and shoulders; upgrading median barrier; metal beam guard railing (MBGR), AC dikes, sings, and lighting to current standards; replacing loops; and grinding lanes. All proposed project activities would be performed within existing Caltrans right of way.

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)

☐ **Not Applicable – Caltrans is not the CEQA Lead Agency**

☐ **Not Applicable – Caltrans has prepared an Initial Study or Environmental Impact Report under CEQA**

☒ **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].)

Eduardo Aguilar: Senior Environmental Planner or Environmental Branch Chief

Signature — Date: 2/8/17

~~Reza Fateh:~~ Project Manager
SUJAYA KALAINESAN

Signature — Date: 02/03/17

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)

☒ 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 EA or EIS under the National Environmental Policy Act. Based on the evaluation of this project and supporting documentation in the project files, all the conditions of the 2016 Caltrans Programmatic CE Agreement have been met.

- ☐ **23 CFR 771.117(c): activity (c)(26)**
- ☐ **23 CFR 771.117(d): activity (d)(___)**
- ☐ **Activity ___ listed in Appendix C of the 2016 Caltrans Programmatic CE Agreement**

Eduardo Aguilar: Senior Environmental Planner or Environmental Branch Chief

Signature — Date: 2/8/17

~~Reza Fateh~~: Project Manager/DLA Engineer
SUJAYA KALAINESAN

Signature — Date: 02/03/17

Date of PCE Checklist completion: 2/3/17

Date of ECR or equivalent : 2/3/17

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

CATEGORICAL EXEMPTION/PROGRAMMATIC CATEGORICAL EXCLUSION DETERMINATION FORM
Continuation Sheet

07-LA-210	R0.0/R9.7	309600	0714000299
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:

Section 106 Compliance (01/26/17)

The undertaking, as currently proposed, has no potential to affect historic properties eligible for or listed in the National Register of Historic Places.

Hazardous Waste Assessment (01/31/17)

A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead in soil so that provisions can be made for handling and disposal of the contaminated soils per the Department of Toxic Substances Control (DTSC) lead agreement with Caltrans.

Please consider the top 2 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way to be non-RCRA (California) hazardous waste (Type Z-2), per State of California Regulations, and should be disposed of at a California-permitted Class I landfill facility.

The waste generated by the removal of yellow thermoplastic and yellow paint stripes by-itself require disposal at an appropriate disposal facility.

Once wood poles are removed and become waste, they are considered as treated wood waste (TWW). TWW is a non-RCRA California hazardous waste and the handling, storage, transportation, and disposal are subject to the California hazardous waste regulations. During PS&E phase and upon receiving a request for hazardous waste assessment, we will provide a special provisions for handling, storing, transporting, and disposing of TWW.

Asbestos Containing Material (ACM) may be encountered during removal of existing metal beam guard railing. The shim between the metal railing and wood block have been found to contain asbestos. An asbestos survey is required to identify ACM.

Natural Environment Study (1/30/17)

All work will be limited to the prism of the roadway, or the edge of the un-vegetated roadway for purposes of equipment maneuvering and traffic control.

There will be no clearing or grubbing of vegetation as a result of this project.

All appropriate storm water and Erosion Best Management Practices will be incorporated into the project specifications.

ATTACHMENT 7

STORM WATER DATA REPORT

Dist-County-Route: 07-LA-210
Post Mile Limits: PM R0.0/R9.7
Type of Work: Pavement Preservation Project
Project ID (EA): 0714000299 (309600)
Program Identification: 201.122

Phase: ☐ PID ☒ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Los Angeles – Region 4

Total Disturbed Soil Area: 29.07 Acres Post Construction Treatment Area: 52.52

Alternative Compliance (acres): -52.52

Estimated Const. Start Date: 6/20/2019 Estimated Const. Completion Date: 6/21/2022

Risk Level: RL 1 ☐ RL 2 ☒ RL 3 ☐ WPCP ☐ Other:

Is the Project within a TMDL watershed? Yes ☒ No ☐

TMDL Compliance Units (acres): -52.52

Notification of ADL reuse (if yes, provide date): Yes ☐ Date: 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.

Quang Thai, Registered Project Engineer/Landscape Architect — 9/7/2017 Date

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

Sujaya Kalainesan, Project Manager — 9/12/2017 *Date*

David Lawrence, Designated Maintenance Representative — 9/14/17 *Date*

Ron Russak, Designated Landscape Architect Representative — 09/14/17 *Date*

[Stamp Required at PS&E only]

Shirley Pak, District/Regional Design SW Coordinator or Designee — 9/14/2017 *Date*

STORMWATER DATA INFORMATION

1. Project Description

This Pavement Preservation Project proposes to replace the existing pavement along the outer two lanes on I-210 within PM R0.0 and R9.7 in the Los Angeles County, with a roadway structural section that will provide a service life of at least 40 years. This project also proposes to replace and upgrade the following: metal beam guardrail (MBGR); AC dikes; and sign structures and panels; ADA curb ramps; traffic loop detectors; and some other highway appurtenances and facilities within the project limits. Majority of the work will be completed within the roadway prism and no additional right-of-way will be required.

- The limits of this project extend from Interstate 5 (PM R0.0) to 1000 feet east of Big Tujunga Wash (PM R9.7) in the City of Los Angeles, in the County of Los Angeles. This project is estimated at $118.6 million in 2017 dollars, and will be submitted for programming into the 2019 State Highway Operation Protection Program (SHOPP) cycle as part of the Pavement Preservation Program (201.122).

The scope within this project includes:

Mainline:

- From PM R0.0 to PM R6.2, the freeway segment has predominantly three lanes in each direction. Lanes #2 and #3 will be reconstructed with JPCP-Rapid Strength Concrete (RSC); and individual distressed slabs on the #1 lane will be replaced with RSC in each direction.
- From PM R6.2 to PM R9.7, the freeway segment has four lanes in each direction. Lanes #3 and #4 will be reconstructed with JPCP and individual distressed slabs on the #1 and #2 lanes will be replaced with JPCP-RSC in each direction.
- Grind the new and existing PCC pavement to restore surface friction and provide smooth driving conditions.
- The new pavement structure is as follows:

1.20' JPCP
Base Bond Breaker
0.35' Alternate Treated Base*
0.70' Aggregate Base (AB) Class 3

2.25' Total

1.20' JPCP-RSC
Base Bond Breaker
0.35' Alternate Treated Base*
Exist Aggregate Base (AB) Class 3**

1.55' Total and Exist AB Class 3

* Lean Concrete Base (LCB), Lean Concrete Base Rapid Strength (LCBRS), or Roller Compacted Concrete Base (RCCB) to be selected at the contractor's option.

** Existing Aggregate Base (AB) Class 3 will stay in place.

- Upgrade to Midwest Guardrail System (MGS), their end treatments, and replace all damaged MBGR along the mainline.
- Replace dikes and upgrade nonstandard dikes to current standards.
- Replace approach/departure slabs for the two outer lanes as needed.
- On the approach ends, the existing MBGR connections to either a bridge railing or concrete barrier will be upgraded with a transition railing (Type WB-31) to meet current standards plans requirement.
- Upgrade bridge structure approach railings to current standards.
- Upgrade 54 ADA ramps to current standards:
    - Yarnell St EB/WB Off/On-Ramp
    - Roxford St EB/WB Off/On-Ramp
    - Polk St EB/WB Off/On-Ramp
    - Hubbard St EB/WB Off/On-Ramp
    - Maclay St EB/WB Off/On-Ramp
    - Paxton St EB/WB Off/On-Ramp
    - Foothill Blvd EB/WB Off/On-Ramp
    - Wheatland Ave EB/WB Off/On-Ramp
- Replace 26 single post sign structures and 6 two post sign structures.
- Replace sign panels with new panels consistent with current reflectivity standards.
- Upgrade freeway sign lighting fixtures with energy efficient/lower maintenance systems to improve system reliability.
- Upgrade highway lighting systems with new energy efficient lighting and conduit and theft-resistant pull boxes to improve system reliability.

Median Shoulders:

- The existing AC median shoulders (i.e. left) will be reconstructed for temporary use as through lanes during construction. To comply with the district traffic closure charts, the median shoulder will be used as a through lane and one to two lanes can be shifted onto the opposite direction roadway to allow for the long term closure of the #3 & #4 lanes between PM R6.2 to R9.7.
- The new pavement structure is as follows:

0.85'	JPCP
	Base Bond Breaker
0.35'	Lean Concrete Base
Varies	Aggregate Base (AB) Class 3

- Upgrade existing concrete barrier (Type 50) to current standards, where impacted by stage construction or pavement rehabilitation activities.

Right Shoulders:

- The AC shoulder will be cold-planed and overlayed with 0.15' Rubberized Hot Mix Asphalt-Type G (RHMA-G).

Ramps, and Connectors:

Ramps

- In-kind replacement of existing cracked PCC slabs with RSC at ramp termini.
- Cold-plane and overlay 0.15' RHMA-G on AC lane and shoulders.
- Repair localized failed pavement as needed.
- Replace all affected traffic loop detectors.

Connectors

NB & SB I-5 to EB I-210, WB I-210 to NB & SB I-5, EB SR-118 to EB & WB I-210, and EB & WB I-210 to WB SR-118 are included in this project.

- Cold-plane and overlay 0.2' RHMA-SP-G on AC lane and shoulder areas.
- Repair localized failed pavement as needed.
- Repair Spalling
- Grind the new and existing PCC pavement to restore surface friction and provide smooth driving conditions.

Gore:

- The gore areas will be cold-planed and overlayed with 0.2' Rubberized Hot Mix Asphalt--Type G (RHMA-G).

Auxiliary Lanes:

- The existing PCC auxiliary lanes will be removed and reconstructed with the same structural section as the mainline.

Right-of-way certification is anticipated on this project on 06/26/2019. All work is expected to be done within existing right-of-way.

The total disturbed soil area (DSA) was calculated to be 28.9 acres for the item of work: construction of median shoulder between PM R0.0 to PM R1.2, reconstruction of lanes #3 and #4 between PM R6.2 to PM R9.7, ADA ramp and sidewalk, MBGR, transition bridge railing and concrete anchor block, AC dike, overhead sign.

The net increase of impervious surface is 0.19 acres, which is calculated from the new paved dirt portion of the median shoulder area.

All project work involving the replacement of median structural section and median concrete barrier is not considered part of the DSA because the existing layer of Aggregate Base will remain in place without disturbing the subgrade below. Furthermore, repair of damaged Portland Cement Concrete (PCC) slabs on the inner lanes will be implemented by removing the entire thickness using the non-impact method, and subsequently replacing the same thickness of PCC slabs with RSC. Current best practices for crack and spall repair will be utilized.

Net New Impervious Surface (NNI) is 0.19 acres.

Replace Impervious Surface (RIS) is 52.33 acres.

New Impervious is 0.19 + 52.33 = 52.52 acres.

Existing impervious area within the project limits of PM R0.0 to R9.7 is 180 acres.The net new impervious is less than 50% of the total impervious area. No existing treatment will be removed, therefore additional treament area is not required.

Post Construction Treatment Area is 52.52 acres.

This project lies within the limits of the Los Angeles County Municipal Separate Storm Sewer System (MS4s) area in the city of Los Angeles, in the County of Los Angeles.

2. Site Data and Stormwater Quality Design Issues

- The project extends along the I-210 corridor through the Los Angeles River Watershed. Listed below, are the Hydrological Sub-Area (HSA) Names with their respective HSA area in acres; average annual precipitation in inches; HSA numbers.
  Sylmar Subwatershed: 29,198 acres; 18.28 inches; HSA 412.22.
  Bull Canyon Subwatershed: 184,402 acres; 17.97 inches; HSA 412.21.
  Tujunga Subwatershed: 97,866 acres; 25.42 inches; HAS 412.23.
  The receiving water bodies within the project limits are: Stetson Canyon Channel, Sombrero Canyon Channel, Mansfield Canyon Channel, Fenbard Drain, Pacoima Wash, Lopez Canyon Channel, Kagel Canyon Channel, Hansen Flood Control Basin and Wilson Canyon Channel.
  Within the project limits, there are no receiving water bodies on the 303(d) list.
- District 7 Drinking Water Reservoirs and Recharge Facilities within the project limits are:

Road Segment/ Facility	County	Regional Board	Drinking Water Reservoir or Recharge Facility Area	Description	Comments
SR-210 PM 5.14	LA	4	Lopez Spreading Ground	This shallow basin was first used in 1956-1957. Its gross area is 18 acres and wetted area is 12 acres. Its intake capacity is 25 cfs, storage capacity is 24 acre-ft, and percolation is 15 cfs.	The location is on the southeasterly side of Pacoima Wash, northeasterly of Foothill Blvd, with controlled flows from Pacoima Dam and and Lopez Flood Control Basin.
SR-210 PM R7.63 /9.08	LA	4	Hansen Spreading Ground/Flood Control Basin/Reservoir/Dam	These shallow basins were first used in 1944-1945. The gross area is 156 acres, wetted area is 105 acres. Channel capacity is 22,000 cfs. Its intake capacity is 279 acre-ft. The percolation is 150 cfs.	It is owned by U.S. Army Corp. of Engineers. Located northwesterly side of Tujunga Wash from above Glenoaks Blvd. Southwesterly to San Fernando Rd. Controlled flows from Hansen Dam and Big Tujunga Dam.

- The project limits are within the Los Angeles River Watershed. The Total Maximum Daily Loads (TMDLs) are as follows:

  Los Angeles River

  Established TMDLs:

  Los Angeles River Trash TMDL

  The Los Angeles River Trash TMDL became effective August 28, 2002. Caltrans is proceeding with Trash TMDL Implementation Projects, which are to retrofit Gross Solid Removal Devices (GSRDs) at the existing drainage outfalls in the rights-of-way. Table A lists those Trash TMDL Implementation Projects that are either in construction or completed. Any projects that overlap within the limits of freeway corridors listed in Table A are not required to consider GSRDs for those overlapping limits. However, Project Engineers shall consider placing infiltration basins or media filters as much as possible in lieu of GSRDs at existing and proposed drainage systems.

Table A

EA	Route	PM		Status
		From	To	
226611	405	30.31	36.15	Completed
226711	60	2.7	6.6	Completed
	710	22.5	23.8	
2266A1	5	27.62	28.15	Completed
	10	9.02	13.82	
	90	1.84	2.70	
2267A1	10	5.59	8.80	Completed
	91	10.25	13.88	
	105	8.25	13.15	
	110	21.65	23.61	
231311	2	15.40	21.46	Completed
	101	7.21	7.21	
	170	14.78	19.92	
	134/710	13.34	13.34	
	210	22.73	23.88	
	405	25.46	29.41	
235901	5	16.35	16.35	completed
	101	12.70	26.50	
	134	0.00	9.86	

Los Angeles River Nitrogen Compounds and Related Effects TMDL

The Los Angeles River Nitrogen Compounds and Related Effects TMDL became effective March 23, 2004. The TMDL requires the Storm Water NPDES Permittees to submit a Monitoring Work Plan by March 23, 2005 to estimate nitrogen loadings associated with runoff from the storm drain systems. County of Los Angeles has submitted the Monitoring Work Plan as required on behalf of Caltrans and other Storm Water NPDES Co-Permittees in the watershed. Targeted pollutants are Total ammonia as nitrogen (NH3-N), Nitrate-nitrogen (NO3-N), nitrite-nitrogen (NO2-N), and Nitrate nitrogen plus nitrite-nitrogen (NO3-N + NO2-N).The Department's monitoring data depicts Caltrans discharges to be below the TMDL limits, thus no additional measures are needed to be considered for meeting the conditions of the Nitrogen TMDL.

Los Angeles River and Tributaries Metals TMDL

The Los Angeles River and Tributaries Metals TMDL became effective on January 11, 2006. Caltrans will work with 5 groups of Responsible Agencies toward compliance of the TMDL. Targeted Pollutants are total Cu, Pb, Zn, Cd and Se. Project Engineers shall consider treatment controls for the project and consult with the District NPDES Storm Water Coordinator.

Total Maximum Daily Loads for Indicator Bacteria in the Los Angeles River

The Total Maximum Daily Loads for Indicator Bacteria in the Los Angeles River became effective on March 23, 2012. The TMDL requires the Responsible Agencies, including Caltrans, to reduce number of exceedance days of bacteria concentrations in the Los Angeles River and achieve waste load allocations in 25 years. Caltrans will be working with groups of Responsible Agencies to jointly comply with the TMDL. Project Engineer shall consider treatment controls for the project and consult with the District NPDES Storm Water Coordinator.

Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL

Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL became effective on March 23, 2012. Targeted pollutants are copper, lead, zinc, PAH, DDT, PCBs, Benzopyrene and Dieldrin for water column in the channel and harbors, and for sediments in the harbors. The TMDL requires the dischargers of the Los Angeles River and the San Gabriel River to monitor water quality at the mouth of each River. Caltrans will participate in groups of agencies to jointly comply with the TMDL. Project engineers shall consider treatment controls for the project and consult with the District NPDES Storm Water Coordinator.

- There is no 401 Certification required. A Categorial Exemption is provided for this project.
- Sylmar is generally flat with steep hills of the San Gabriel Mountains to the northeast. The valley shares the Los Angeles basin's dry, sunny weather, with only 17 inches annual

precipitation on average. Rainy season from October 1st to May 1st. Snow in the San Fernando Valley is extremely rare, though the neighboring Angeles National Forest is capped with snow every winter. Although Sylmar is only 20 miles from the Pacific Ocean, the Valley can be considerably hotter than the Los Angeles Basin during the summer months and cooler during the winter months. The average high temperature in summer is 95 °F, dropping down to 68 °F. In winter, the average high is 66 °F and average low is 40 °F. Every year, sometimes from September to November, strong Santa Ana Winds produce 40-80 mph winds which can bring higher temperatures and very low humidity. Land use along the Route 210 corridor varies from residential to commercial, and industrial. Route 210 traverses through 25 cities and communities generally near and parallel to the San Gabriel Mountains.

Based on available information obtained from the Department of Public Works, County of Los Angeles, Groundwater Wells Database, the water surface elevation is as follow:

Rec	TG Page	TG Grid	Number	State Well No.	Water Surface Elevation, ft	Measurement Year
1	481	F3	5928A	3N15W29L01	1,244 – 1,251.10	2008 – 1964
2	481	F3	5958B	3N15W27L01	1,130.80 – 1,196.70	2009 – 1966
3	482	E4	5999	3N15W36C01	1,265.30 – 1,213.70	2008 - 1956
4	502	E1	4892A	2N15W12B02	800.50 – 1,082.20	2009 - 1966
5	503	A1	4932	2N14W08G02	1,062.30 – 1,039.60	2007 - 1956
6	503	C1	4952	2N14W09H01	1,098.80 – 1,134.60	2008 - 1956

- The hydrologic soil group in the area is class C (PM R2.5/R9.7); and class A (PM R0.0/R2.5) per Los Angeles County Hydrology Manual.
- The combined project risk level matrix resulted in a calculated project risk of: Level 2. The Site Sediment Risk Factors were calculated to be High for Bull Canyon and Tujunga Watersheds Erosion Estimates = 167.04 (High Site Sediment Risk Factor >= 75 tons/acre, R Factor = 174, K Factor = 0.24, and LS Factor = 4.00). The Site Sediment Risk Factors

was calculated to be Medium for Sylmar Watershed Erosion Estimates = 63.05 (Medium Site Sediment Risk Factor< 75 tons/acre, R Factor = 174, K Factor = 0.24, and LS Factor = 1.51). The higher value of LS=4 supersedes resulting in a High sediment risk for the site.

The receiving water risk associated with this project is Low, since the DSA does not discharge to a 303(d)-listed waterbody impaired by sediment or has no USEPA approved TMDL implementation plan for sediment or the DSA does not discharge to a waterbody with designated beneficial uses of Spawn & Cold & Migratory.

- Based on a hazardous waste assessment, a site investigation will be required for this project during the PS&E to determine the actual concentration of lead in soil so that provisions can be made for handling and disposal of the contaminated soils. The top 2 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way will be considered non-RCRA (California) hazardous waste (Type Z-2) and should be disposed of at a California-permitted Class I landfill facility. The waste generated by the removal of yellow thermoplastic and yellow paint stripes by-itself require disposal at an appropriate disposal facility. Once wood poles are removed and become waste, they are considered as treated wood waste (TWW). TWW is a non-RCRA California hazardous waste and handling, storage, transportation, and disposal are subject to California hazardous waste regulations. Asbestos Containing Material (ACM) may be encountered during removal of existing metal beam guard railing.An asbestos survey is required to identify ACM.
- The Office of Design is preparing a Supplemental Project Scope Summary Report (PSSR) to address the Trash Total Maximum Daily Load (TMDL) requirements along the I-210, within the same exact project limits of PM R0.0 and R9.7 (EA25940). The PSSR was approved on 06/23/2014 and is in the PA&ED Phase and will be completed on 12/2017. It is programmed for the 2018 State Highway Operation and Protection Plan (SHOPP) cycle as part of the Storm Water Mitigation Program. Based on the recommendations of the Corridor Storm Water Management Study (CSMS), dated February 2012, the TMDL project proposed 28 Biofiltration Swales, 3 Gross Solid Removal Devices (GSRDs) and 5 Austin Vault Sand Filters. As a result, this project is not proposing any additional permanent treatment Best Management Practices (BMPs); and therefore no right-of-way costs have been considered necessary for implementing any of the rehabilitation measures for the roadway or any of the BMPs within the limits of this project.
- Dry weather flows generated by Caltrans are not anticipated to be persistent.
- There are no known areas with present slope stabilization concerns.
- Existing slopes will be disturbed only when necessary. Well stabilized cut/fill slopes will be utilized to minimize source of sediments, limit erosion and allow re-vegetation. All concentrated flow will be collected through roadside dikes and captured by drains. In addition, construction site BMPs will be implemented during construction to reduce Storm Water impacts during construction.
- The proposed 36 permanent BMPs mentioned above (EA25940) for the same project limits will require maintenance.
- Below is a project with existing Treatment BMPs within the limits of the project, per D7 - TMDL Storm Water Coordinator:

Route	Post Mile	Existing Treatment BMP Type	Location
210	R9.1	GSRD	EB @ Christy
210	R8.55	GSRD	EB @ Orcase
210	R6.33	GSRD	WB @ Filmore

3. Construction Site BMPs to be used on Project

- Following are the bid line items to be included in this project:
  130100 Job Site Management
  130300 Prepare Storm Water Pollution Prevention Plan
  130330 Storm Water Annual Report
  130310 Rain Event Action Plan
  130320 Storm water sampling and analysis day
  130620 Temporary drainage inlet protection
  130730 Street sweeping
  130530 Temporary hydraulic mulch (bonded fiber matrix)
  130710 Temporary construction entrance
  130640 Temporary fiber rolls
  130680 Temporary silt fence
  130900 Temporary Concrete Washout (Portable)
  Temporary concrete washout (WM-8)
- Following are the supplemental work items to be included in this project:
  066596 Additional Water Pollution Control
  066595 Water Pollution Control Maintenance Sharing
  066597 Storm Water Sampling and Analysis
- Following are the lump sum included in the Job Site Management:
  Spill prevention and control (WM-4)
  Stockpile management (WM-3)
  Solid waste management (WM-5)
  Hazardous waste management (WM-6)
  Sanitary/septic waste management (WM-9)
  Paving, Sealing, Sawcutting and grinding operations (NS-3)
  Concrete curing (NS-12)
  Concrete finishing (NS-14)
  Water Control and Conservation
  Illegal Connection and Illegal Discharge Detection Reporting
  Vehicle & Equipment Maintenance and Fueling

Material Use Delivery and Storage

Contaminated Soil Management

- As concluded in Section 2 of this report, the project is classified as Risk Level 2. Under the new 2011 Construction General Permit (CGP), the discharger is required to implement and maintain all BMPs year round, prepare a Rain Event Action Plan (REAP), perform water quality sampling and analysis and submit electronically all required documentations to the Regional Water Quality Control Board. Project specific BMP measures will be reevaluated and finalized during the design phase. A Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to the start of construction.
- The construction work for this project is scheduled to cover 36 months. To mitigate any potential runoff or run-on within the project area, construction site BMPs should be installed in a timely manner. Disturbed Soil Area (DSA) will be protected per approved BMPs, which will be listed in more details during the design phase.
- Concrete work is anticipated for this project; therefore, all generated waste will be managed per concrete waste management procedures and practices. Storm drain and curb inlet protection will be implemented throughout the project.
- At this phase of the project, a general lump sum for temporary construction site BMPs is calculated as a percent of the total Cost Method per Appendix F of the PPDG. The cost of the Construction Site BMPs, monitoring and permit fees is estimated to be 1.25% of overall cost, at $1,237,500.
- At this phase of the project, there is no anticipation that a dewatering permit will be required during the construction of the project or the need for active treatment systems (ATS).
- On August 25 2017, Hussein Saad, District 7 Construction Storm Water Coordinator, agrees to the temporary construction site BMPs strategy used (at PA/ED phase) for the scope of work of this project.

4. Maintenance BMPs

- No drain inlet stenciling will be performed on this project.
- The project will not propose permanent Treatment BMP's, therefore, features to assist with maintaining BMP's will not be proposed.

5. Other Water Quality Requirements and Agreements

- The Los Angeles Regional Water Quality Control Board (RWQCB) requires all new/major reconstruction projects that increase impervious area to evaluate the feasibility of post construction Treatment BMP's as a condition of the permit process. The Permanent Treatement BMPs recommended in the Corridor Study within the project limits will be incorporated into the EA 259401 Project.
- Since this project has a CE (Categorical Exemption), there is no additional standard paragraph requirement from other permits.

6. Permanent BMPs

- The scope of the project does not include construction of treatment BMPs. The Permanent Treatement BMPs recommended in the Corridor Study within the project limits will be incorporated into the EA 259401 Project.

Rapid Stream Assessment

- A Rapid Stream Assessment (RSA) is not required.

Design Pollution Prevention (DPP) BMP Strategy

- The proposed grade will not have a significant impact of increasing volume and velocity of flow. The overall drainage flow will remain consistent as the existing condition. The proposed work will mitigate any tree/vegetation removal according to the Caltrans Replacement Policy.
- This project is proposing to replace sections of the existing pavement and few miscellaneous items with no anticipated roadway widening. The limit of work will not extend beyond the limit of the existing edge of shoulders along the mainline and ramps.
- This project will not increase the volume and velocity of downstream flow nor increase the sediment load of downstream flow or affect the downstream channel stability.
- The proposed roadway rehabilitation and miscellaneous upgrades will not significantly create new slopes.
- The majority of the AC dikes will be replaced to comply with new standards; however, the volume and the velocity of flow will remain the same.
- All existing runoff is directed to the existing road drainage system and no scour and gully will be caused. No oversized drains will be constructed. Existing flow is already concentrated and conveyed in the roadway drainage system and discharged to Los Angeles River hydrological areas.
- There is no slope stabilization proposed for this project.
- Total cost for Design Pollution Prevention BMPs is $75,000.

Treatment BMP Strategy

- This project is not considering BMPs because all the BMPs with the project post mile limits on Route 210 will be implemented as part of EA 25940. Both of these projects have the same RTL date and project limits and will be combined at vote, so the project is not deferring the BMPs.

Table E-1. Overall Project Treatment Summary Table[1]		
	Post Construction Treatment Area (ac)	A=52.52
Total Treated Area	Treated Impervious Area (CT RW) (ac)	B=0
	Treated Impervious Area (Outside CT RW) (ac)	C=0
	Treated Pervious Area (CT RW) (CUs) (ac)[2]	D=0
	Treated Pervious Area (Outside CT RW) (CUs) (ac)[2]	E=0
	Post Construction Treatment Balance (ac)[3]	F = (B+C) – A=(0+0) – 52.52
TMDL Areas Only	Stabilized Area (ac)	G=0
	Alternative Compliance (ac)[4]	F=-52.52
	TMDL Compliance Units (ac)[5]	H = D+E+F+G =0+0-52.52+0= -52.52

1 This table is provided as an example. The table may be edited, altered, or removed as applicable or as directed by the District/Regional Design Stormwater Coordinator.

2 This acreage can only be applied to CUs, if applicable.

3 If the total treated area is not equal to (or greater than) the project required Post Construction Treatment Area, then Alternative Compliance must be identified for this amount.

4 Available Alternative Compliance

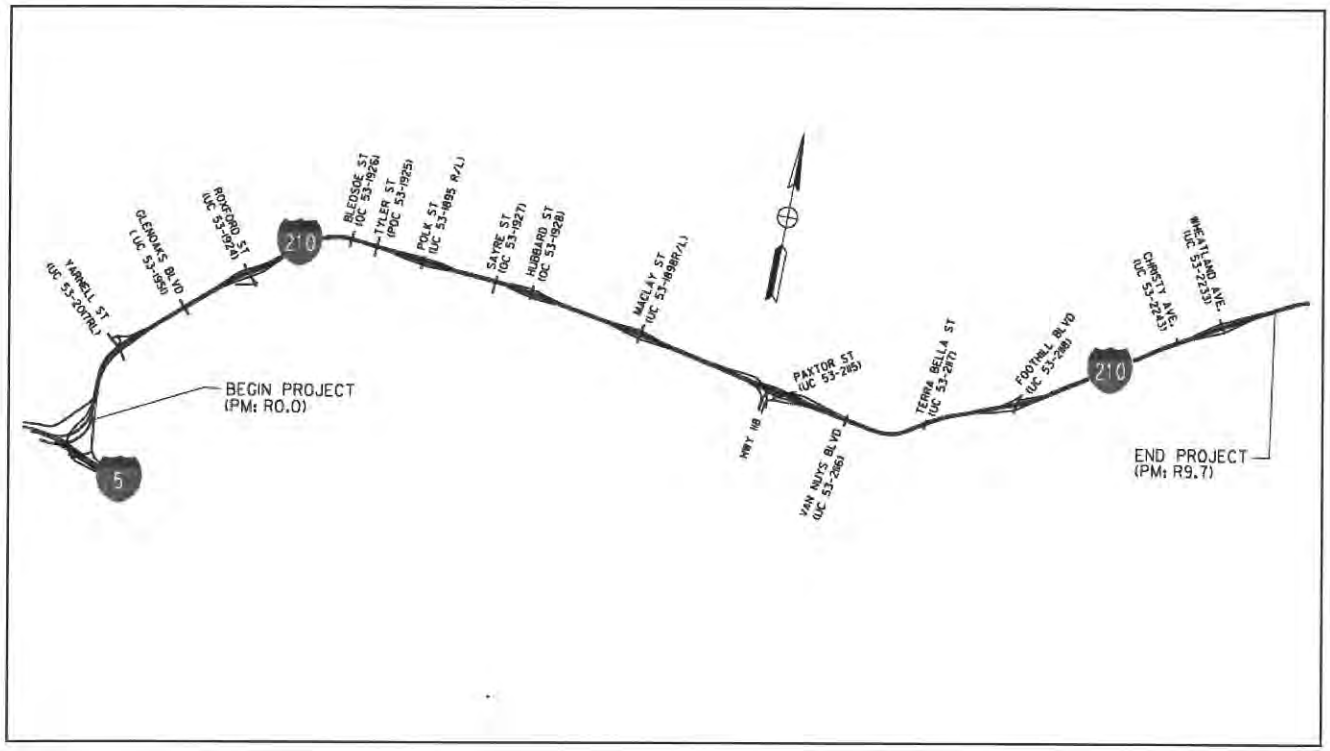
- Negative Value - amount of treatment needed through Alternative Compliance.
- Positive Value – amount of treatment available for Alternative Compliance (within the same watershed) or CUs as determined by the district.

5 Areas identified as Post Construction Treatment Balance (F) can only be applied as CUs when it has not been used as Alternative Compliance. This area cannot be double counted. In addition, Stabilized Areas (G) within a TMDL can only be applied when the area is not included in the Total Treated Area (D and E).

Required Attachments

- Vicinity Map
- Evaluation Documentation Form (EDF)
- SWDR Summary Spreadsheets
- Risk Level Determination Documentation

Vicinity Map



On Route Interstate 210

Between Interstate 5 (PM R0.0)

And Wheatland Ave Undercrossing (PM R9.7)

DATE: 8/22/2017

Project ID (EA): 309600

No.	Criteria	Yes ✓	No ✓	Supplemental Information for Evaluation
1.	Begin Project evaluation regarding requirement for implementation of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Treatment BMPs. Continue to 2.
2.	Is the scope of the Project to install Treatment BMPs (e.g., Alternative Compliance or TMDL Compliance Units)?		✓	If **Yes**, go to 8. If **No**, continue to 3.
3.	Is there a direct or indirect discharge to surface waters?	✓		If **Yes**, continue to 4. If **No**, go to 9.
4.	As defined in the WQAR or ED, does the project: a. discharge to areas of Special Biological Significance (ASBS), or b. discharge to a TMDL watershed where Caltrans is named stakeholder, or c. have other pollution control requirements for surface waters within the project limits?		✓	If **Yes to any**, contact the District/Regional Design Stormwater Coordinator or District/Regional NPDES Coordinator to discuss the Department's obligations, go to 8 or 5. SP Malcolm 8/25/2017 _____*(Dist./Reg. Coordinator initials)* If **No** to all, continue to 5.
		✓		
		✓		
5.	Are any existing Treatment BMPs partially or completely removed? (ATA condition #1, Section 4.4.1)		✓	If **Yes**, go to 8 **AND** continue to 6. If **No**, continue to 6.
6.	Is this a Routine Maintenance Project?		✓	If **Yes**, go to 9. If **No**, continue to 7.
7.	Does the project result in an increase of one acre or more of new impervious surface (NIS)?	✓		If **Yes**, go to 8. If **No**, go to 9.
8.	Project is required to implement Treatment BMPs.	Complete Checklist T-1, Part 1.		
9.	Project is not required to implement Treatment BMPs. _____*(Dist./Reg. Design SW Coord. Initials)* _____*(Project Engineer Initials)* _____ *(Date)*	Document for Project Files by completing this form and attaching it to the SWDR.		

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		174
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.24
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		4
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		167.04
16	**Site Sediment Risk Factor**		**High**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Facility Information

- Start Date: 06/20/2019
- End Date: 06/21/2022
- Latitude: 34.3044
- Longitude: -118.4252

Erosivity Index Calculator Results

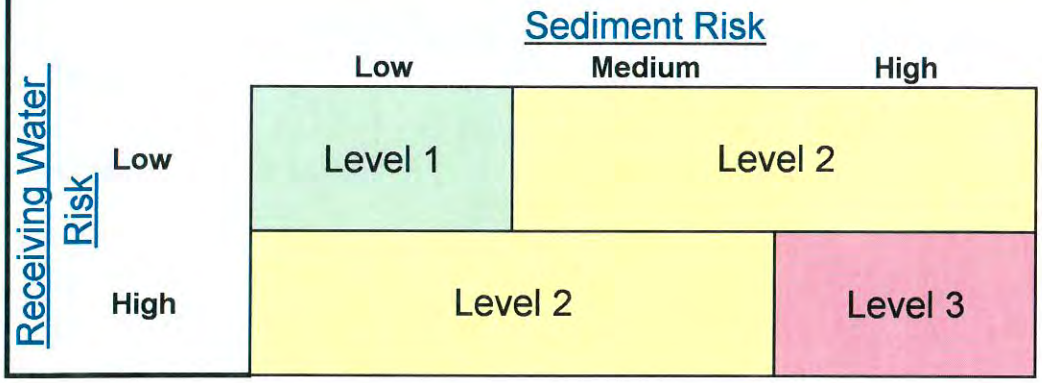
An erosivity index value Of **174** has been determined for the construction period of **06/20/2019 - 06/21/2022**.

A rainfall erosivity factor of 5.0 or greater has been calculated for your site and period of construction. **You do NOT qualify for a waiver from NPDES permitting requirements**.

Start Over

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml	**no**	**Low**
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan) http://www.waterboards.ca.gov/waterboards_map.shtml		
Region 1 Basin Plan Region 2 Basin Plan Region 3 Basin Plan Region 4 Basin Plan Region 5 Basin Plan Region 6 Basin Plan Region 7 Basin Plan Region 8 Basin Plan Region 9 Basin Plan		

Combined Risk Level Matrix



Project Sediment Risk: High

Project RW Risk: Low

Project Combined Risk: Level 2

SWDR Signed Date	District	EA/Project ID	County	Route	Beg_PM	End_PM	Project Description	Project Phase	Long SWDR	Risk Level	DSA (ac)	TMDL Waterbody	Biofiltration Strips and Swales	Detention	Infiltration Devices	GSRD	TST	MedFilter	DPPIA	
	7	309600	LA	210	R 0.00	R 9.7	Pavement Preservation	PAED	Yes	RL2	29.07	Yes	0	0	0	0	0	0	0	

ATTACHMENT 8

HAZARDOUS WASTE CLEARANCE

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Serious drought.
Help save water!

To: OJI KALU
DESIGN MANAGER
OFFICE OF DESIGN, BRANCH B

Attn: QUANG THAI

Date: January 31, 2017

File: LA-210
PM R0.0/R9.7
EA: 07-334-309600
ID: 1847-0714000299

From: PENNY NAKASHIMA, P.G.
Senior Engineering Geologist
Office of Environmental Engineering (OEE)
District Hazardous Waste Coordinator- North Region

Subject: **HAZARDOUS WASTE ASSESSMENT (PSSR)**

The Office of Environmental Engineering (OEE) has received your memo dated January 10, 2017, for a Hazardous Waste Assessment for Resurfacing and Rehabilitation (2R) project on Interstate 210 (I-210) between Interstate 5 (I-5) (PM R0.0) and Wheatland Avenue Undercrossing (PM R9.7), in Los Angeles County. This project proposes to restore the existing pavement with 40-year service life roadway structural section. Pavement rehabilitation for ramps, connectors and adjacent shoulders will also be included as part of this project.

The project scope includes replacing damaged concrete slabs in lane numbers, one and two, rebuilding lane numbers, three and four with concrete pavement, reconstructing median and shoulders, upgrading median barrier, metal beam guard railing (MBGR), AC dikes, signage and lighting to current standards, replacing loops, and grinding lanes. All work will be within Caltrans right-of-way.

We have completed our review and our hazardous waste assessment is as provided below:

Based on the information received, we understand that the project will include soil excavation (up-to 1.20 feet deep) in unpaved areas. Also there will be MBGR replacement, yellow and white traffic stripe removal work included with this project. Grinding lanes will not include yellow traffic stripe. There is TMDL that looks like it will be combined with this project (EA 259401).

<u>ADL concern in unpaved surfaces</u>
Based on a previous Site Investigation Report for another project within the project limits (PM 4.4/17.4) in Caltrans right-of-way, total lead concentrations detected ranged from below laboratory detection limit to 3,740 mg/kg and soluble lead concentrations detected ranged from 0.51 mg/l to 259 mg/l. The details of the test results are available in the report prepared by GEOCON, Task Order No. 07-120721-01, dated March 4, 1996. The soil tested within the project limit was hazardous, because the total lead concentration was greater than the TTLC and soluble lead concentration was greater than 5 mg/l STLC. A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead in soil so that provisions can be made for handling and disposal of the contaminated soils per the Department

of Toxic Substances Control (DTSC) lead Agreement with Caltrans. Based on the levels of lead detected during the previous Site Investigation, the lead contaminated soil may be able to be reused. A request to perform the SI should be submitted early in the design phase because it requires three to four months to complete the SI report. For estimating purpose, please consider the top 2 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way to be non-RCRA (California) hazardous waste (Type Z-2), per State of California Regulations, and should be disposed of at a California-permitted Class I landfill facility. Please refer to the latest Contract Cost Database (http://sv08web/design/contractcost/) for the funds that need to be allocated for the removal and disposal of contaminated soil and the lump sum cost of the Contractor's Lead Compliance Plan.

Traffic stripe

Yellow traffic stripes have both lead and chromium in concentrations that exceed threshold levels established by the California Health and Safety Code and Title 22 of the California Code of regulations. The waste generated by the removal of yellow thermoplastic and yellow paint stripes by-itself require disposal at a Class I facility. During PS&E phase and upon receiving a request for hazardous waste assessment, we will provide appropriate special provisions. The Contractor shall prepare a project specific lead compliance plan (LCP) to prevent or minimize worker exposure to lead while removing and handling the yellow traffic stripe residue and test residue prior to transport to and disposal at an appropriate disposal facility. Please refer to the latest Contract Cost Database (http://sv08web/design/contractcost/) for the funds that need to be allocated for the lump sum cost of the Contractor's LCP.

Residue from removing white traffic stripes by itself will not contain hazardous levels of lead. However, an LCP is required as per Cal-OSHA Title 8 California Code of Regulations. During PS&E phase and upon receiving a request for hazardous waste assessment, we will provide appropriate special provisions. The Contractor shall prepare a project specific LCP to prevent or minimize worker exposure to lead while removing and handling white traffic stripe residue.

Treated Wood Waste

The project involves the removal of wooden posts. The wood used for the posts are treated with chemical preservatives. Arsenic, chromium, copper, and pentachloro-phenol are among the chemicals added to preserve wood. Once these wood poles are removed and become waste, they are considered as treated wood waste (TWW). TWW is non-RCRA California hazardous waste and the handling, storage, transportation, and disposal are subject to California hazardous waste regulations. During PS&E phase and upon receiving a request for hazardous waste assessment, we will provide a special provisions for handling, storing, transporting, and disposing of TWW. Please refer to the latest Contract Cost Database (http://sv08web/design/contractcost/) and allocate appropriate funds for disposal of TWW and the Board of Equalization (BOE) fee.

Asbestos Containing Material – Shims in MBGR

Asbestos Containing Material (ACM) may be encountered during removal of existing metal beam guard railing. The shim between the metal railing and wood block have been found to contain asbestos. An asbestos survey is required to identify ACM. During PS&E phase and upon receiving a request for hazardous waste assessment, we will provide a special provisions for the ACM survey. The special provisions will direct the Contractor to perform the ACM survey as a first order of work.

This Hazardous Waste Assessment is applicable to the scope of work described above. Any change in the scope of work will require a Hazardous Waste Re-Assessment. If you have any questions or need additional information, please contact me at (213) 897-0670, Penny.Nakashima@dot.ca.gov or contact Saba Tesfayohannes of my staff at (213) 897-8592, Saba.Tesfayohannes@dot.ca.gov.

ATTACHMENT 9

TMP DATA SHEET

TRANSPORTATION MANAGEMENT PLAN DATA SHEET
(Preliminary TMP Elements and Costs)

Co/Rte/PM LA/210/R 0.0–R 9.7 EA 07-309600 Alternative No. _____

Project Limit Rte 210 from Route 5 to 0.2 miles West of Big Tujunga Wash Bridge.

Project Description Roadway Rehab and Lane Replacements

1) Public Information	
☐ a. Brochures and Mailers	
☒ b. Press Release	
☒ c. Paid Advertising	$ 90,000.00
☐ d. Public Information Center/Kiosk	
☐ e. Public Meeting/Speakers Bureau	
☐ f. Telephone Hotline	
☐ g. Internet	
☒ h. Others Flyers	
2) Motorists Information Strategies	
☒ a. Changeable Message Signs (Fixed)	$ 0.00
☐ b. Changeable Message Signs (Portable)	
☐ c. Ground Mounted Signs	
☐ d. Highway Advisory Radio	
☐ e. Caltrans Highway Information Network (CHIN)	
☐ f. Others	
3) Incident Management	
☒ a. Construction Zone Enhanced Enforcement Program (COZEEP)	$1,260,000.00
☒ b. Freeway Service Patrol	$ 916,000.00
☐ c. Traffic Management Team	
☐ d. Helicopter Surveillance	
☐ e. Traffic Surveillance Stations (Loop Detector and CCTV)	
☐ f. Others	

4) Construction Strategies

- [x] a. Lane Closure Chart
- [ ] b. Reversible Lanes
- [ ] c. Total Facility Closure
- [ ] d. Contra Flow
- [ ] e. Truck Traffic Restrictions $ _____
- [ ] f. Reduced Speed Zone $ _____
- [x] g. Connector and Ramp Closures
- [ ] h. Incentive and Disincentive $ _____
- [ ] i. Moveable Barrier $ _____
- [ ] j. Others _____ $ _____

5) Demand Management

- [ ] a. HOV Lanes/Ramps (New or Convert) $ _____
- [ ] b. Park and Ride Lots $ _____
- [ ] c. Rideshare Incentives $ _____
- [ ] d. Variable Work Hours
- [ ] e. Telecommute
- [ ] f. Ramp Metering (Temporary Installation) $ _____
- [ ] g. Ramp Metering (Modify Existing) $ _____
- [ ] h. Others _____ $ _____

6) Alternative Route Strategies

- [ ] a. Add Capacity to Freeway Connector $ _____
- [ ] b. Street Improvement (widening, traffic signal... etc) $ _____
- [ ] c. Traffic Control Officers $ _____
- [ ] d. Parking Restrictions
- [ ] e. Others _____ $ _____

7) Other Strategies

- [ ] a. Application of New Technology $ _____
- [ ] e. Others _____ $ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS = $ 2,266,000.00

Project Notes:

1. The project proposes the following:
   - Reconstruct pavement slabs and structural sections of two lanes adjacent to the right shoulder of Eastbound (EB) and Westbound (WB).
   - Replace freeway lanes #1 and #2 third-stage cracked pavement slabs.
   - Upgrade ADA curb ramp and existing concrete barrier to current standards.
   - Reconstruct left shoulders.
   - Cold plane and over lay the right shoulders, connectors and ramps.
   - Replace all overhead signs within the project limits and provide new signage at specified locations.
   - Remove and replace non-standard Metal Beam Guard Rail (MBGR) and non-standard asphalt concrete dikes within the project limits.

   The estimated construction cost for this project is about $104,000,000.00 and construction is scheduled to begin on August, 2019 and completed by September 2021.
2. During the reconstruction of EB and WB on two adjacent right lanes, the existing median will be removed and 30 foot wide median will be used as two through lanes. Traffic in each direction will be separated by temporary railing Types K.
3. TMP for the remaining work was developed based on closure of the following during off-peak hours:
   - Route 210 freeway lanes and left and right shoulders in both directions.
   - Route 210 freeway on/off-ramps within the project limits.
4. The work shall be done in accordance with the lanes closure charts provided in the Maintaining Traffic Specifications. No significant traffic impacts are expected.
5. Caltrans Office of Public Affairs and Media Relations provided the Paid Advertising cost estimate of $90,000.00
6. The COZEEP cost estimate of $1,260,000 was provided by the Caltrans Construction Traffic Advisor.
7. During stage construction inside and outside shoulders are not available within the project limit. Therefore Freeway Service Patrol will be provided during 4 hours morning peak and 5 hours afternoon peak. The cost estimate of Freeway Service Patrol is $916,000.
8. The estimate in this TMP Datasheet is for Project, Approval and Environmental Document (PAED).

PREPARED BY Dennis Do DATE 2/22/2017

APPROVAL RECOMMENDED BY Ali Bamshad, P.E.
Senior Transportation Engineer DATE 2/22/2017

APPROVED BY John Holzhauser, P. E., T. E.
Acting District Traffic manager DATE 2.22.2017

Caltrans
District 7

February 2, 2017
EFIS 0714000299

Public Awareness Campaign

I-210 Resurfacing Project Between I-5 & Wheatland Avenue

1. Press Release:
   Announcing upcoming project may be sent to local media outlets, elected officials & others if needed. Press Release may include:
   - Start of work
   - Explanation of project
   - Lane closures
   - Completion

2. Fact Sheets, Fliers or Web Notices
   - May be utilized as needed

3. Possible Paid Advertising

4. Funding Elements
   - Advertising – $90,000

David P. White
Office of Public Affairs & Media Relations
(213) 897-3656

MEMORANDUM

TO: ALI BAMSHAD, STE, TMP MANAGER

FROM: AMJAD OBEID, CONSTRUCTION TRAFFIC ADVISOR

SUBJECT: **UPDATED** COZEEP COST ESTIMATE, PROJECT # EA 07-309604
07-LA-210 P.M. R0.0/R9.7
0714000299
ROADWAY REHABILITATION

DATE: 2/21/2017

CC: TMP ESTIMATE FILES

The total Update cost estimate providing COZEEP to rehab Route 210 Route 5 and Sunland Blvd. UC by replacing damaged slabs with RSC, upgrading ADA curb ramps and concrete barrier, reconstruct median shoulders, cold planing & overlay right shoulders with AC, replacing all OH signs, and replacing nonstandard MBGR and AC dikes per your memo dated August 26, 2014 is approximately **$1,260,000.00** as follows:

600 closures @ $2,100 per closure = $1,260,000

If you have any questions or comments, please call me at (562) 401-3333 x224

FSP Calculation Sheet

EA: 309600 - ID: 0714000299

Location: Route 210, from Rte 005 to 0.2 miles west of Big Tujunga Wash Bridge

Duration of FSP required (*working days*): *640 days*
Number of trucks on weekdays: *1*
Number of trucks on weekends: *0*
Cost per truck per hour: *$ 65.00*

Days of the Week	# of Trucks	Extra Hours Needed			# of Hours	Cost
Mondays through Thursdays (Morning)	1	6:00 AM	to	10:00 AM	4.0	$ 144,560
Mondays through Thursdays (Afternoon)	1	3:00 PM	to	8:00 PM	5.0	$ 180,700
Fridays(Morning)	1	6:00 AM	to	10:00 AM	4.0	$ 36,140
Fridays(Afternoon)	1	3:00 PM	to	8:00 PM	5.0	$ 45,175
Saturdays(Morning)		12:00 AM	to	12:00 AM		
Saturdays(Afternoon)		12:00 AM	to	12:00 AM		
Sundays(Morning)		12:00 AM	to	12:00 AM		
Sundays(Afternoon)		12:00 AM	to	12:00 AM		
					Truck Service Subtotal:	$ 406,575

	Unit Cost	# of Hours/Week**	# of Weeks		Cost
Dispatch ($/Hr)	*$ 65.00*	45	139		$ 406,575
MTA Administration (5% of Truck Cost)	$ 20,329				$ 20,329
		# of Hours/Month	# of Months		
CHP Safety Inspection ($/Hr)	*$ 90.00*	8	32		$ 23,040
				Miscellaneous Subtotal:	$ 449,944

Subtotal:	$ 856,519
7% Contingency:	$ 59,956
Use:	*$ 916,000*

The input data required are highlighted with yellow color.

Note:

ATTACHMENT 10

RISK REGISTER

LEVEL 2 - RISK REGISTER	Project Name: LA-210-0/9.1 Roadway Rehabilitation and Lane Replacements						DIST- EA: 07-309600		Project Manager: Sujaya Kalainesan				Total Capital Cost: $120,479,000			
Risk Identification							Risk Assessment						Risk Response			
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Risk Owner	Updated
Active	1	Threat	Construction	Hazardous Materials	As a result of unanticipated hazardous waste materials encountered while testing in design phase, additional hazardous mitigation planning would be required, which could lead to design schedule delayed and support cost incerased.	Hazardous waste mitigation strategies would require additional time for design.	3-Moderate	2 -Low	6	4 -Moderate	12	Based on previous Roadside Improvement projects of this scale and location	Mitigate	Once in the PS&E phase, a hazardous materials study should be conducted to determine the actual cost for ADL materials mitigation.	H/W Coordinator	9/27/2017
Active	2	Threat	Construction	Unknown Utility	As a result of unidentified utilities encountered during construction, additional potholing may be required which would increase the project cost and delay the schedule.	There is no R/W takes on this Project. But due to the nature of the Project additional potholing might be necessary during construction and R/W capital is needed which cannot be secured during construction.	2-Low	2 -Low	4	2 -Low	4	With all "known" utilities having been considered. There may still be another line buried, unacounted.	Mitigate	Contact utility companies prior to construction and include additional cost in the engineer's estimate to mitigate this risk.	Utility	9/27/2017
Active	3	Threat	ROW	Utility Relocation	As a result of unplanned utility relocation, more time may be required which would impact the schedule.	Obtaining permits for any utility relocation involving public utility companies is a cumbersome process.	2-Low	2 -Low	4	4 -Moderate	8	Any utility relocation that involves any of public utility companies, shall be time consuming for permits	Mitigate	Review possible utility conflicts with all utility owners. Perform potholing prior to construction. Initiate action early to seek permissions from the utilities for relocations, if any	Design	9/27/2017
Active	4	Threat	Construction	Rapid Strength Concrete Mix Design	As a result of being a pilot program, Low Shrinkage Rapid Strength Concrete (RSC) would have constructability issues during short construction windows, which could lead to substantially higher unit cost than regular RSC.	Low Shrinkage RSC specification is developed for District 7 for the first time. The mix design is assumed to be fairly straight forward and cost is similar to regualr RSC.	3-Moderate	4 -Moderate	12	2 -Low	6	Low Shrinkage RSC has unique specifications and cannot be compared to other similar products.	Accept	Materials, Design and the Contractor to work closely to optimize the Low Shrinkage RSC mix design and costs.	Materials	9/27/2017
Active	5	Threat	Construction	Increase of Individual Distressed Slab Replacement	Because the recent field investigation stated the pavement condition is in need of major rehabilitation, additional individual distressed slabs would be included, which would lead to increase of project cost .	Additional individual slab failure may have occurred since 2013 pavement condition survey required additional slab replacement.	3-Moderate	8 -High	24	4 -Moderate	12	Scope includes for additional slab replacements to compensate for deterioration of slabs from now until it gets to construction.	Accept	Perform field review and evaluate slab conditions during construction to identify if any additional slabs need to be replaced. Funds for addition slabs to be included in the project cost estimate.	Construction	9/27/2017
Active	6	Threat	Construction	Differing Site Condition - Concrete Pavement	As a result of existing concrete pavement structural section depth may be different from the as-built, which would impact the works, resulting additional time and cost.	Concrete pavement structural section removal and replacement thickness were designed based on the as-built and assumed T.I.	3-Moderate	4 -Moderate	12	4 -Moderate	12	There is no data to suggest in regards of existing concrete pavement structural section conditions.	Mitigate	Coring should be done on the concrete pavement replacement prior to start of construction to confirm the existing structural section and modify the new structural section if necessary.	Construction	9/27/2017
Active	7	Threat	Construction	Differing Site Condition - AC Pavement	As a result of existing asphalt concrete pavement structural section depth, during excavation, may be much deeper than designed, which would lead to increase the cost and duration of the project.	Existing AC pavement replacement thickness is assumed to be similar to the adjacent concrete pavement structural section.	3-Moderate	2 -Low	6	2 -Low	6	There is no data to suggest in regards of existing asphalt pavement structural section conditions.	Mitigate	Coring should be done on the AC pavement replacement prior to construction to confirm the existing structural section and modify the new structural section if necessary.	Construction	9/27/2017
Active	8	Threat	Design	Landscape Interference	Existing Planting and Irrigation may be impacted by Utility and Structure works, resulting in additional cost and delay to project.	Landscape to provide plans and estimates for known conflicts with existing irrigation systems	2-Low	2 -Low	4	2 -Low	4	Shoulder and Dike work may results in the removal of Type A nonreflective Pavement markers used to designate locations of irrigation crossovers.	Avoid	Allow for sufficient review time during PS&E to all the concerend functional units to identify any conflicts and avoid impact to landscape and/or irrigation facilities. Provide copies of as-builts of existing irrigation and landscape facilities in the information handout and RE files.	Landscape	9/27/2017
Active	9	Threat	Construction	Traffic Volume and Work Window Duration	Existing Planting and Irrigation may be impacted by Utility and Structure works, resulting in additional cost and delay to project. Traffic Volume within the project limits is too high for long term lane closures. Due to the limited duration of lane closures, working windows will be short and slab replacement work will need to completed entirely during night closures. This will result in an extended the construction shedule for the project.	Rate of construction will be impacted and the duration of contruction will be longer. Overall project construction schedule will be longer.	2-Low	2 -Low	4	4 -Moderate	8	Not able to attain a full lane closure or minimal work window to continually perform work. This can lead to an increase in the construction duration.	Mitigate	Discuss lane closure windows with DTM unit and identify the number of working days for the project based on the short term closure windows. Reevaluate constrution schedule based on number of working days and rate of slab replament for the given closure window.	Design/PPM	9/27/2017
Active	10	Threat	Construction	R/W Impacts due to ADA curb ramp upgrade	This project involves ADA curb ramp upgrade at 54 locations. At some of the curb ramp locations, Caltrans R/W is limited. Due to lack of base maps, preliminary design of the curb ramps could not be completed and R/W needs/impacts could not be acessed.	Based on preliminary field review it is asumed that additional R/W will not be required for the curb ramp upgrades	3-Moderate	4 -Moderate	12	4 -Moderate	12	Need for R/W acquisition will impact R/W capital cost, PS&E and R/W support cost and project schedule.	Accept	Curbramps will be design within exisiting R/W to the extent possible. But if during PS&E if it is determined that R/W is necessary to complete curb ramp upgrade at a particular location, then that location will be eliminated from the project by preparing a suplemetal PSSR and a corresponding PCR to document the SHOPP performance measure change.	Design/PPM	9/27/2017
Active	11	Threat	Construction	Conflicting projects	There is a parallel project (EA 25940) to construct stormwater BMPs within the same route and postmile limits as this project.	The conflicting project will be identified in the project specifications and construction schedule will be adjusted to allow for completion of work on both projects.	3-Moderate	2 -Low	6	4 -Moderate	12	Coordination will be required between the contractors on the two projects. Conflcits can result in unnecessary claims and extended construction schedule.	Mitigate	The district will consider combining the two projects at vote so as to avoid conflicts in the constructuction schedule of the two projects.	Design/PPM	9/27/2017