

04 - SOL - 680 - PM 0.35/13.10  
20.20.201.121  
Project No. 0412000150  
EA 04-3G650K  
September/2011

**PROJECT SCOPE SUMMARY REPORT  
(CAPITAL PREVENTIVE MAINTENANCE PROJECT)**

**To**

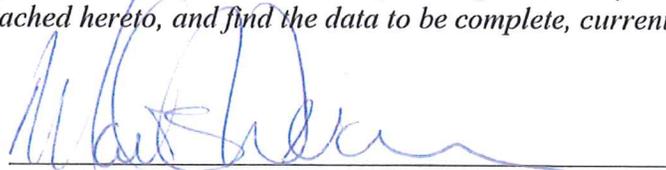
**Request Programming in the 2012 SHOPP**

On Route 680

Between Route 780

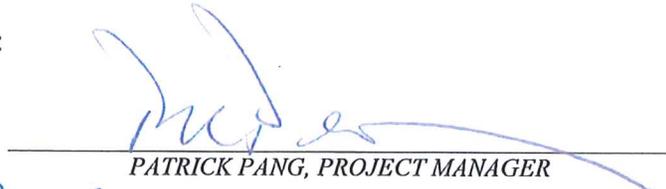
And Route 80

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



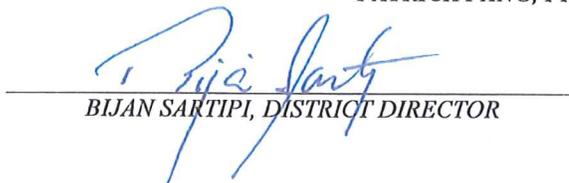
MARK L. WEAVER, DEPUTY DISTRICT DIRECTOR -  
RIGHT OF WAY AND LAND SURVEYING

APPROVAL RECOMMENDED:



PATRICK PANG, PROJECT MANAGER

APPROVED:



BIJAN SARTIPI, DISTRICT DIRECTOR

9-16-11  
DATE

04 - SOL - 680 - PM 0.35/13.10

20.20.201.121

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September/2011



On Route 680

Between Route 780

And Route 80



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## 1. INTRODUCTION AND BACKGROUND

The project is located between Benicia and Fairfield in Solano County on Route 680 from 0.00 miles just north of Route 780 to 13.10 miles just south of Route 80.

This Capital Preventive Maintenance (CAPM) project proposes to resurface the existing across mainline travelled-way and shoulders pavement surfaces. Existing 0.25' of travel-way surface will be replaced with 0.10 ft of Hot Mix Asphalt (Type A) (MHA-A) leveling course, geosynthetic paving material, and 0.15 ft of Rubberized Hot Mix Asphalt Gap Grade (RHMA-G). For the inside and outside mainline shoulders, it is proposes to grind 0.10 ft across the entire shoulders and replace with 0.10 ft of RHMA-G. For all ramps, grind and remove 0.20 ft of asphalt pavement and replace with 0.20 ft of RHMA-G. Existing rumble strips on the inside and outside shoulders will be removed and reconstructed. Also, localized Metal Beam Guard Rail (MBGR) will be reconstructed as necessary.

See the Cost estimate for specific work items included in this project.

<b>Project Limits</b>	04 - SOL - 680 - PM 0.35/13.10
<b>Capital Costs:</b>	\$19,300,000
<b>Right of way Costs:</b>	\$10,000
<b>Funding Source:</b>	2012 SHOPP (201.121)
<b>Number of Alternatives:</b>	2
<b>Recommended Alternative (for programming and scheduling):</b>	Overlay existing roadway pavement and drainage improvement
<b>Type of Facility (conventional, expressway, freeway):</b>	Freeway
<b>Number of Structures:</b>	5
<b>Anticipated Environmental Determination/Document:</b>	CEQA: Categorical Exemption NEPA: Categorical Exclusion
<b>Legal Description</b>	Roadway Rehabilitation

## 2. RECOMMENDATION

It is recommended that this Project Scope Summary Report (PSSR) be approved and that authorization be granted to prepare the next phase Project Approval and Environmental Document (PA&ED) of the project.

### **3. PURPOSE AND NEED STATEMENT**

**Need:**

The project need is an identified underlying transportation deficiency or problem that needs correction. The pavement within the project limits is exhibiting minor distress and unacceptable ride quality, which if left uncorrected, will deteriorate to a major roadway rehabilitation need.

**Purpose:**

The project purpose is the object that will be met to address the project need. The purpose of this project is to improve the ride and extend the life of the existing pavement.

### **4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA**

The following is Traffic Data for Route 680, Solano County

**4A. ROADWAY GEOMETRIC INFORMATION**

Facility (1)	Minimum Curve Radius	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)	
		No. of Lanes	Lane Width (ft)	Type (Flex, Rigid, or Composite)	Left (ft)	Right (ft)						Width (ft)
Existing	R 2.22	7000	2	12	Flex	4 to 6	4 to 6	24 to 36	N	N/A	N	N/A
	R 2.66	7000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 3.28	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 4.21	3000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 4.83	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 5.2	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 6.01	3000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 6.39	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 6.88	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 9.37	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 10.49	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
	R 11.67	10000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 11.92	10000	2	12	Flex	4 to 6	4 to 6	24 to 40	N	N/A	N	N/A	

Facility (1)	Minimum Curve Radius	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)
		No. of Lanes	Lane Width (ft)	Type (Flex, Rigid, or Composite)	Left (ft)	Right (ft)					
R 2.22	7000	2	12	Flex	4 to 6	4 to 6	24 to 36	N	N/A	N	N/A
R2.66	7000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 3.28	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 4.21	3000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 4.83	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 5.2	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 6.01	3000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R6.39	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R6.88	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R9.37	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R10.49	3500	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R11.67	10000	2	12	Flex	4 to 6	4 to 6	6	N	N/A	N	N/A
R 11.92	10000	2	12	Flex	4 to 6	4 to 6	24 to 40	N	N/A	N	N/A

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

Code for Column "Facilities Adjacent to the Roadbed":

B: Bicycle Path

P: Pedestrian Walkway

B/P: Shared Bicycle and Pedestrian Path

L: Landscaped area between the curb and sidewalk



contacted during PA&ED phase.

Deficiencies:

Shoulder backing and rumble were installed per the Shoulder Widening Project (Contract No. 04-258714). Rumble strips inside shoulder and outside shoulder on both northbound and southbound should be reconstructed. More investigation should be contacted during PA&ED phase.

**(3) Pedestrian Facility Data**

<b>Facility Type and Location(s)</b> <i>(Station, post mile or other reference point)</i>	<b>Meets ADA Standards?</b> <i>(Yes or No for each listed location)</i>	<b>If Facility does not meet ADA Standards, what feature(s) are not ADA compliant?</b> <i>(List features per location)</i>	<b>Status of Each Noncompliant Location</b> <i>[Use the following statements, as appropriate:</i> <ul style="list-style-type: none"> <li>• <i>Will be corrected as part of this project;</i></li> <li>• <i>Will not be corrected because it is technically infeasible to correct;</i></li> <li>• <i>This work is outside the scope of this project. This facility and its location have been so documented in the Project History File and this information was submitted to the District ADA Coordinator on (Date) for inclusion in the Department's Transition Plan. ]</i> </li></ul>
<b>Sidewalks:</b> <i>(List locations as appropriate)</i>	N/A		
<b>Curb Ramps:</b> R2.662 NBRF Lake Herman Rd	No	Detectable warning surface and may need adjust profile of sidewalk per observation	Will conduct detailed investigation during PA&ED phase
<b>Crosswalks:</b> <i>(List locations as appropriate)</i>	N/A		
<b>Driveways:</b> <i>(List locations as appropriate)</i>	N/A		
<b>Shared bicycle/pedestrian path:</b> <i>(List locations as appropriate)</i>	N/A		
<b>Others:</b> <i>(List locations as appropriate)</i>			

**(4) Bicycle Path Data**

No bicycle path within the project limits.

#### 4C. STRUCTURES INFORMATION

Structures	Width Between Curbs			Replace Bridge Railings (Y or N)	Vertical Clearance			Work Identified in STRAIN (Y or N)	Replace Bridge Approach Rail (Y or N)	Replace Bridge Approach Slab	
	Exist	3R Std	Prop		Exist	3R Std	Prop			(Y/N)	#
NB 680-WB 780/SB 680 Connector & Sep 23-214G				N	21.98		21.98	N	N	N	
Ben-Mar Approach 23-215R				N	26.57		26.57	N	N	N	
EB780-NB 680/680 Connector & Sep 23-211F				N	22.80		22.80	N	N	N	
NB 680-WB 780/SB 680 Connector & Sep 23-214G				N	21.98		21.98	N	N	N	
Benicia Viaduct 23-143L				N	28.81		28.81	N	N	N	
Benicia Viaduct 23-143R				N	28.81		28.81	N	N	N	
Lake Herman Rd OC 23-164				N	16.57		16.57	N	N	N	
Parish Rd OC 23-161				N	16.99		16.99	N	N	N	
Marshvfiw Rd OC 23.-162				N	16.40		16.40	N	N	N	
Gold Hill Rd OC 23-163				N	17.16		17.16	N	N	N	
Cordelia OH 23-142L				N	23.00		23.00	N	N	N	
Cordelia OH 23-142R				N	16.74		26.74	N	N	N	
Rte 680/80 Sep 23-139E				N	16.57		16.57	N	N	N	

Structures	Width Between Curbs			Replace Bridge Railings (Y or N)	Vertical Clearance			Work Identified in STRAIN (Y or N)	Replace Bridge Approach Rail (Y or N)	Replace Bridge Approach Slab	
	Name/No.	Exist	3R Std		Prop	Exist	3R Std			Prop	(Y/N)
NB 680-WB 780/SB 680 Connector & Sep 23-214G					21.98		21.98	N	N	N	
Ben-Mar Approach 23-215R					26.57		26.57	N	N	N	
EB780-NB 680/680 Connector & Sep 23-211F					22.80		22.80	N	N	N	
NB 680-WB 780/SB 680 Connector & Sep 23-214G					21.98		21.98	N	N	N	
Benicia Viaduct 23-143L					28.81		28.81	N	N	N	
Benicia Viaduct 23-143R					28.81		28.81	N	N	N	

#### 4D. VEHICLE TRAFFIC DATA

##### Mainline Data:

Present Year ADT 64,000

5-Year ADT 73,000

Construction Year ADT 67,000

10-Year ADT 80,000

DHV 7,700

20-Year ADT 92,000

D 62.55%

% Trucks 5.36%

T.I. (5-Year) 10.5

ESAL (5-Year) 3,980,000

T.I. (10-Year) 11.5

ESAL (10-Year) 8,300,000

T.I. (20-Year) 12.5

ESAL (20-Year) 17,932,000

**Ramp Data:**

	TRAFFIC INDEX (All Lanes & Shoulders)											
	Southbound						Northbound					
	Off-ramp			On-ramp			Off-ramp			On-ramp		
	5-Year	10-Year	20-Year	5-Year	10-Year	20-Year	5-Year	10-Year	20-Year	5-Year	10-Year	20-Year
CORDELIA RD							8.0	8.5	9.5			
GOLD HILL RD	8.0	9.0	10.0	7.5	8.0	9.0	7.5	8.0	9.0	8.0	9.0	10.0
MARSHVIEW RD	7.5	8.0	8.0	7.5	8.0	8.0	7.5	8.0	8.0	7.5	8.0	8.0
PARISH RD	7.5	8.0	8.0	7.5	8.0	8.0	7.5	8.0	8.0	7.5	8.0	8.0
LAKE HERMAN RD	8.0	9.0	9.5	8.0	9.0	9.5	8.0	9.0	9.5	8.0	8.5	9.5
INDUSTRIAL WAY	7.5	8.0	9.0							7.5	8.0	9.0
BAYSHORE RD				8.5	9.0	10.0	8.5	9.5	10.0			
ROUTE 780	8.5	9.0	10.0	10.0	11.0	12.0	10.0	10.5	11.5	8.5	9.0	10.0

Safety Field-Review 9/2/11  
(date)

**Accident Data:**

A total of 317 accidents occurred on Route 680 (PM 0.36/ 13.13) during the latest 3-year period from July 1, 2007 thru June 30, 2010. In addition, the following data reveals that the actual total accident rate is below the statewide average total accident rate:

Total number of accidents = 317 (4 Fatal, 103 Injury, 210 Property Damage Only)

*Actual Accident Rates			*Average Accident Rates		
<u>Fatal</u>	<u>Fatal+Injury</u>	<u>Total</u>	<u>Fatal</u>	<u>Fatal+Injury</u>	<u>Total</u>
0.004	0.12	0.35	0.012	0.27	0.79

(Note: \*Accident rates above are expressed as: # of accidents / million vehicle miles)

The (317) total accidents fall into the following categories:

<u>No. of Accidents</u>	<u>Type of Collision</u>
1 (0.3%)	Head-On
50 (15.8%)	Sideswipe
100 (31.5%)	Rear End
8 (2.5%)	Broadside
129 (40.7%)	Hit Object
26 (8.2%)	Overturn
3 (0.9%)	Other
<u>Primary Collision Factor</u>	
26 (8.2%)	Influence Alcohol
7 (2.2%)	Follow Too Close
110 (34.7%)	Improper Turn
101 (31.9%)	Speeding
56 (17.7%)	Other Violations
10 (3.2%)	Other Than Driver
6 (1.9%)	Unknown
1 (0.3%)	Not Stated

#### **4E. MATERIALS**

The Preliminary Material Report was completed on August 19, 2011. The Existing 0.25' of travel-way surface will be replaced with 0.10 ft of Hot Mix Asphalt (Type A) (MHA-A) leveling course, geosynthetic paving material, and 0.15 ft of Rubberized Hot Mix Asphalt Gap Grade (RHMA-G). For the inside and outside mainline shoulders, it is proposes to grind 0.10 ft across the entire shoulders and replace with 0.10 ft of RHMA-G. For all ramps, grind and remove 0.20 ft of asphalt pavement and replace with 0.20 ft of RHMA-G. Existing rumble strips on the inside and outside shoulders will be removed and reconstructed. See Attachment G for more information.

#### **5. CORRIDOR AND SYSTEM COORDINATION**

I-680 corridor in Solano County connects the city of Fairfield to the city of Benicia and extends 11.5 miles from I-80 to the Benicia-Martinez Bridge at the Solano/Contra Costa County line. The proposed project is consistent with statewide, regional, and local planning goals in the area.

#### **6. ALTERNATIVES**

##### **6A. REHABILITATION STRATEGY:**

The preferred Alternative is to resurface the pavement within the project limits with the recommendation mentioned in the Preliminary Material Report (Attachment G). Even though the thickness is 0.05' over the CAPM

guidelines, the strategy for remove and replace 0.25' of existing pavement is necessary due to a requirement to remove the existing Open Grade Asphalt Concrete (OGAC) on the pavement. This project's CAPM strategy has been concurred by Office of Maintenance - Pavement Program and District 04 Project Development Coordinator. This strategy will improve the ride and extend the life of the existing pavement.

**6B. DESIGN EXCEPTIONS:**

None

**6C. ENVIRONMENTAL COMPLIANCE:**

None

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

None

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

None

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

None

**6G. HIGHWAY PLANTING AND IRRIGATION:**

None

**6H. ROADSIDE DESIGN AND MANAGEMENT:**

None

**6I. STORMWATER COMPLIANCE:**

The project disturbs less than one acre of soil. Construction Site Best Management Practices (BMPs) will be included in the PS&E stage. A copy

of signed front sheet of the SWDR is on Attachment I.

**6J. RIGHT OF WAY**

No additional right of way is required for this project. There is no utility relocation anticipated for this project. However, utility verification needs to be performed during PA&ED phase at some locations where curb ramps need to be reconstructed. See attachment E for the Right of Way Data Sheet.

**6K. RAILROAD INVOLVEMENT:**

Union Pacific Railroad has facilities within the project limits. A 'short' clause will be included in the PS&E.

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

None

**6M. PROLONGED TEMPORARY RAMP CLOSURES:**

Temporary ramp closure will be anticipated during construction.

**6N. RECYCLED MATERIALS:**

Asphalt material removed can be used as base and/or shoulder backing for adjacent projects if applicable.

**6O. LOCAL AND REGIONAL INPUT:**

Up to now there is no local and regional input. Future inquiries from them can be addressed during PA&ED phase.

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

Pavement condition will deteriorate and the cost to fix it at a later time will increase.

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

The recommended alternative is to perform pavement resurface. The only other alternative is no-build alternative.

**7. TRANSPORTATION MANAGEMENT**

**7A. TRANSPORTATION MANAGEMENT PLAN**

TMP will be required for this project. Various TMP elements such as portable changeable message sign and construction zone Enhancement Enforcements Program (COZEEP) will be included. Night lane closure will be required. See Attachment H for TMP Data Sheet.

**7B. VEHICLE DETECTION SYSTEMS**

Wireless Magnetometer Vehicle Detection Station (WMVDS) will be replaced during construction.

**8. ENVIRONMENTAL DETERMINATION/DOCUMENT**

The Preliminary Environmental Analysis Report was prepared and approved for this project in conjunction with the Project Scope and Summary Report (PSSR). In compliance with CEQA and NEPA, the project has been determined for a Categorical Exemption and Categorical Exclusion, respectively. See Attachment D.

Date Approved: September 16, 2011

**9. FUNDING/SCHEDULING**

**9A. COST ESTIMATE**

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Section 1 - Earthwork					
Roadway Excavation		CY		\$0	
				Subtotal Earthwork:	\$0
Section 2 - Structural Section					
Replace Asphalt Surfacing	1,469	CY	\$170	\$249,753	
HMA (Type A)	38,828	TON	\$82	\$3,183,865	
RHMA-G	73,408	TON	\$93	\$6,826,981	
Pavement Reinforcing Fabric	376,891	SQYD	\$1	\$376,891	
Asphaltic Emulsion	415	TON	\$680	\$282,200	
Rumble Strip	137,280	LF	\$1.0	\$137,280	
				Subtotal Structural	\$11,027,587

Section:

Section 3 - Drainage

Adjust Inlets	0	EA	\$2,000	\$0
Remove HMA Dike	15,800	LF	\$0.6	\$9,480
HMA Dike	15,800	LF	\$2	\$31,600
Adjust Overside Drain	0	EA	\$1,000	\$0

Subtotal Drainage: \$41,080

Section 4 - Specialty Items

066105 (SF) Resident

Engineer Office	1	LS	\$200,000	\$200,000
Progress Schedule (CPM)	1	LS	\$10,000	\$10,000
Prepare WPCP	1	LS	\$3,500	\$3,500
Health and Safety Plan	1	LS	\$10,000	\$10,000
Water Pollution Control	1	LS	\$150,000	\$150,000
Temporary Concrete Washout	2	EA	\$4,500	\$9,000
Temporary DI Protection	111	EA	\$120	\$13,320
Temporary Crash Cushion	8	EA	\$5,000	\$40,000
Remove Terminal Section	2	EA	\$500	\$1,000
Remove Thermoplastic Traffic Stripe	468,336	FT	\$0.50	\$234,168
Remove Pavement Markers		FT	\$2	\$0
Remove AC Dike		FT	\$12	\$0
Remove MBGR	1,500	FT	\$10	\$15,000
MBGR	1,500	FT	\$60	\$90,000
MBGR End Treatment	12	EA	\$650	\$7,800
Reset Crash Cushion	0	EA	\$1,000	\$0
Remove Temporary K-Rail	0	FT	\$60	\$0
Reset Temporary K-Rail	0	FT	\$30	\$0
Roadway Excavation (Type Y)	0	CY	\$100	\$0
Lead Compliance Plan	1	LS	\$5,000	\$5,000
Concrete Barrier (Type 60C)		FT	\$290	\$0
Thermoplastic Pave. Mrk.	8,300	SQ FT	\$4	\$33,200
4 Inch Therm. Stripe (W)	343,752	FT	\$2	\$687,504
4 Inch Therm. Stripe (Y)	8,047	FT	\$3	\$24,140
8 Inch Therm. Stripe (W)	11,880	FT	\$5	\$59,400
(S) Pave. Mark.	2,794	EA	\$7	\$19,558

(Retroreflective)					
869042 Adjust Pull Box	0	EA	\$1,000	\$0	
				Subtotal Specialty	
				Items:	\$1,612,590
Section 5 - Traffic Items					
COZEEP Contract	1	LS	\$200,000	\$200,000	
Traffic Management Plan					
- Public Information	1	LS	\$10,000	\$10,000	
Freeway Service Patrol	1	LS	\$50,000	\$50,000	
Construction Signs	1	LS	\$20,000	\$20,000	
Traffic Control System	1	LS	\$150,000	\$150,000	
Portable CMS	4	EA	\$12,500	\$50,000	
				Subtotal Traffic	
				Items:	\$480,000
				TOTAL	
				SECTIONS 1 thru 5	\$13,161,257

Section 6 - Roadway  
Mobilization

	<u>\$13,161,257</u>	<u>0.10</u>	<u>\$1,316,126</u>
(Subtotal			
Sections 1 thru 5)		(10%)	
			TOTAL SECTION 6
			MOBILIZATION ITEMS: <u>\$1,316,126</u>

Section 7- Roadway  
Additions

Supplemental Work

	<u>\$13,161,257</u>	<u>0.05</u>	<u>\$658,063</u>
(Subtotal		(5 to	
Sections 1 thru 5)		10%)	

Contingencies

	<u>\$13,161,257</u>	<u>0.15</u>	<u>\$1,974,189</u>
(Subtotal			
Sections 1 thru 6)		(15%)	

	TOTAL SECTION 7
	ROADWAY ADDITIONS: <u>\$2,632,251</u>

TOTAL ROADWAY ITEMS: \$17,109,634

Escalated 4% per year to mid-year construction: \$19,246,011

<u>Utility Relocation</u>	\$0
<u>Railroad Agreements</u>	\$0
<u>Right of Way</u>	\$10,000
<u>Environmental Compliance</u>	\$10,000

**TOTAL PROJECT COST**      \$19,266,011.00

**9B. PROJECT SUPPORT:**

	PROJECT SUPPORT COMPONENTS								Total
	PA&ED 0 Phase		Design 1 Phase		Right of way 2 Phase		Construction 3 Phase		
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	8		12		2.5		12		34.5
Estimated PS \$'s	1360		2040		425		2040		5865
Estimated PYE \$'s (\$1000's)									0
Total \$'s	1360	0	2040	0	425	0	2040	0	5865

**9C. PROJECT SCHEDULE:**

Milestones	Delivery Date (Month, Day, Year)
PA & ED	July 1, 2012
Regular Right of way	July 1, 2012
Project PS&E	June 30, 2013
Right of way Certification	August 31, 2013
Ready to List	October 31, 2013
Approve Contract	March 1, 2014
Contract Acceptance	December 31, 2014
End Project	December 31, 2015

## 10. FEDERAL COORDINATION

Based on the Joint Stewardship and Oversight Agreement between Caltrans and Federal Highway Administration date October 2010, this project is considered to be a Delegated Project.

## 11. SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER:

Attachment F Date 9/2/11

## 12. PROJECT REVIEWED BY:

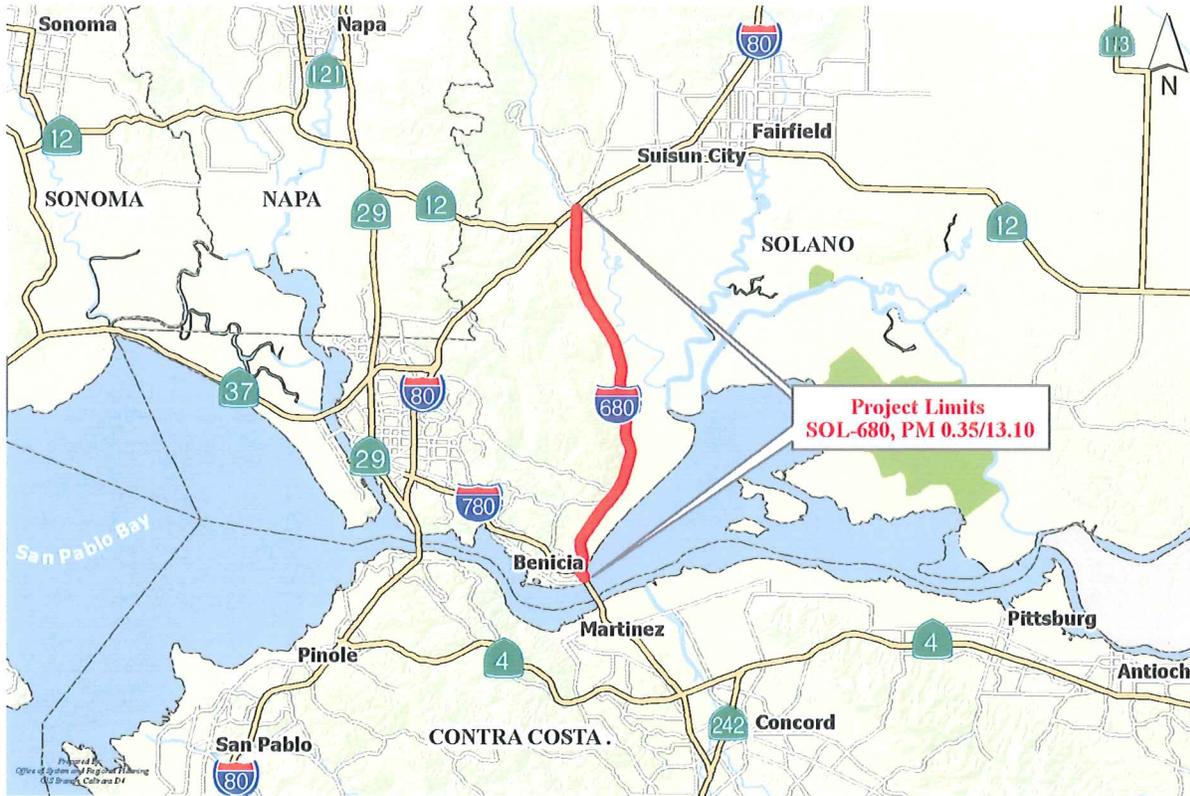
Field Review	<u>Donald Breeden/William Fong</u>	Date	<u>9/2/11</u>
District Maintenance	<u>Robert Camargo</u>	Date	<u>9/13/11</u>
District Safety	<u>Raymond Suen</u>	Date	<u>9/16/11</u>
District Materials	<u>Brian Barber</u>	Date	<u>9/14/11</u>
HQ Design Coordinator/Reviewer	<u></u>	Date	<u></u>
HQ Maintenance Program	<u>Brian Weber &amp; Bill Farnbach</u>	Date	<u>9/13/11</u>
FHWA	<u>Delegated Project</u>	Date	<u></u>

## 13. ATTACHMENTS

- A. Location Map
- B. Typical Cross Section
- C. PMS Inventory Data
- D. Preliminary Environmental Analysis Report
- E. Right of Way Data Sheet
- F. Scoping Team Field-Review Attendance Roster
- G. Materials Recommendation
- H. Transportation Management Plan (TMP) Data Sheet
- I. Storm Water Data Report – Signature Sheet

Attachment A

# Location Map



Attachment B

# Typical Cross Sections



Attachment C

# PMS Inventory Data

# Caltrans Maintenance Program 2009 Pavement Summary Caltrans Drive Order

HA, District 4, SOL, Rte 680

## District 4 County SOL Route 680

----- Maximum Observed Values -----

Prior-ty	County	Route	Begin PM	End PM	Length	Pave Type	Dir.	Trig. Dir.	Trig. Ln Mi	AADT (,000)	MSL	Allig. A	Bleed- ing	Rut- ting	1st St. Crk.	3rd St. Crk.	Com- er Ctk. ing	Int'l Rough. Index	Defect
7	SOL	680	M0.889 R	- M0.923 R	0.034	F	R	R	0.034	35	1	72	72		N/A			N/A	HIGH ABC
7	SOL	680	R0.203	- R 0.689	0.486	F	R	R	0.486	64	1	72	72		N/A			N/A	HIGH ABC
7	SOL	680	R0.689	- R 1.002	0.313	F	R	R	0.313	64	1	72	72		155			155	HIGH ABC
7	SOL	680	R1.327	- R 1.431	0.104	F	R	R	0.104	56	1	72	72		187			187	HIGH ABC
5	SOL	680	R1.327	- R 1.431	0.104	F	L	L	0.104	56	1				264			264	RIDE
7	SOL	680	R1.431	- R 2.000	0.569	F	R	R	0.569	58	1	24	21		144			144	MOD ABC & PAT
7	SOL	680	R2.000	- R 2.923	0.923	F	R	R	0.923	58	1	57			94			94	HIGH ABC
7	SOL	680	R2.000	- R 2.923	0.923	F	L	L	1.846	58	1	3	65		187			187	HIGH ABC
7	SOL	680	R2.923	- R 3.000	0.077	F	R	R	0.077	58	1	57			N/A			N/A	HIGH ABC
7	SOL	680	R2.923	- R 3.000	0.077	F	L	L	0.154	58	1	7	50		99			99	HIGH ABC
7	SOL	680	R3.000	- R 4.000	1.000	F	R	R	2.000	58	1	47			87			87	HIGH ABC
7	SOL	680	R3.000	- R 4.000	1.000	F	L	L	2.000	58	1	7	50		105			105	HIGH ABC
7	SOL	680	R4.000	- R 5.000	1.000	F	R	R	2.000	58	1	47			87			87	HIGH ABC
7	SOL	680	R4.000	- R 5.000	1.000	F	L	L	1.000	58	1	54			101			101	HIGH ABC
7	SOL	680	R5.000	- R 6.000	1.000	F	R	R	1.000	58	1	10	63		129			129	HIGH ABC
7	SOL	680	R5.000	- R 6.000	1.000	F	L	L	1.000	58	1	6	57		97			97	HIGH ABC
7	SOL	680	R6.000	- R 7.000	1.000	F	R	R	2.000	58	1	7	31		122			122	HIGH ABC
7	SOL	680	R6.000	- R 7.000	1.000	F	L	L	1.000	58	1	31	22		104			104	MOD ABC
9	SOL	680	R7.000	- R 7.967	0.967	F	R	R	0.967	59	1	31	53		100			100	HIGH ABC
7	SOL	680	R7.000	- R 7.967	0.967	F	L	L	0.967	59	1	24	70		120			120	HIGH ABC
7	SOL	680	R7.967	- R 8.000	0.033	F	R	R	0.033	59	1	31	53		N/A			N/A	HIGH ABC
7	SOL	680	R7.967	- R 8.000	0.033	F	L	L	0.033	59	1	17	39		N/A			N/A	HIGH ABC
9	SOL	680	R8.000	- R 9.000	1.000	F	R	R	1.000	59	1	17	14		81			81	MOD ABC
7	SOL	680	R8.000	- R 9.000	1.000	F	L	L	1.000	59	1	17	39		118			118	HIGH ABC
7	SOL	680	R9.000	- R 10.000	1.000	F	R	R	2.000	59	1	22	47		105			105	HIGH ABC
7	SOL	680	R9.000	- R 10.000	1.000	F	L	L	1.000	59	1	11	54		102			102	HIGH ABC
7	SOL	680	R10.000	- R 10.666	0.666	F	R	R	0.666	60	1	17	43		133			133	HIGH ABC
9	SOL	680	R10.000	- R 10.666	0.666	F	L	L	0.666	60	1	8	14		94			94	MOD ABC
7	SOL	680	R10.671	- R 11.000	0.329	F	R	R	0.329	60	1	17	43		100			100	HIGH ABC

# Caltrans Maintenance Program 2009 Pavement Summary

District 4  
 County SOL  
 Route 680  
 Begin PM R 10.671

## Caltrans Drive Order

HA, District 4, SOL, Rte 680

District 4 County SOL Route 680

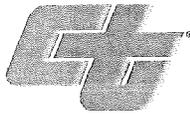
Priority	County	Route	Begin PM	End PM	Length	Pave Type	Dir.	Trig. Dir.	Ln Mi	AADT (,000)	MSL	Allig. B		Bleeding	Routing	1st St. Crk.	3rd St. Crk.	Comer Crk.	Faulting	Int'l Rough. Index	Defect	
												A	B									
9	SOL	680	R10.671	R11.000	0.329	F	L	L	0.329	60	1	8	14								122	MOD ABC
7	SOL	680	R11.000	R11.897	0.897	F	R	R	0.897	60	1	21	47								105	HIGH ABC
9	SOL	680	R11.000	R11.897	0.897	F	L	L	0.897	60	1	50	25								136	MOD ABC
7	SOL	680	12.689	12.807	0.118	F	R	R	0.118	60	1	21	47								146	HIGH ABC
9	SOL	680	12.689	12.807	0.118	F	L	L	0.118	60	1	50	25								123	MOD ABC
7	SOL	680	12.807	13.088	0.281	F	R	R	0.562	60	1	7	31								182	HIGH ABC
9	SOL	680	12.807	13.088	0.281	F	L	L	0.281	60	1	50	25								155	MOD ABC

----- Maximum Observed Values -----

Total Triggered Lane Miles **28.473**

Attachment D

Preliminary Environmental  
Analysis Report (PEAR)



## PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

### Project Information

District 04	County SOL	Route 680	PM 0.0 – 13.10	EA 3G650K
Project Title: Route 80 Pavement Preservation				
Project Manager Patrick Pang			Phone # 510.286.5566	
Project Engineer William Fong			Phone # 510.286.6205	
Environmental Office Chief/Manager Melanie Brent			Phone # 510.286.5231	
PEAR Preparer Phillip Badal			Phone # 510.622.1746	

### Project Description

#### Purpose and Need

The project proposes to restore the facility by rehabilitation the existing pavement to extend pavement quality to a 10-year service life.

#### Description of work

The California Department of Transportation (Caltrans) proposes to rehabilitate existing pavement and culverts on the mainline and ramps of Interstate 680 (I-680) between the CC/SOL County line (PM 0.0) and junction Route 680/80 (PM 13.1). All work will be done within Caltrans' existing right of way.

#### Alternatives

The build alternative is described above. The no-build alternative leaves the existing facility unchanged.

## Anticipated Environmental Approval

CEQA		NEPA	
<b>Environmental Determination</b>			
Statutory Exemption	<input type="checkbox"/>		
Categorical Exemption	<input checked="" type="checkbox"/>	Categorical Exclusion	<input checked="" type="checkbox"/>
<b>Environmental Document</b>			
Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND	<input type="checkbox"/>	Routine Environmental Assessment with proposed Finding of No Significant Impact	<input type="checkbox"/>
		Complex Environmental Assessment with proposed Finding of No Significant Impact	<input type="checkbox"/>
Environmental Impact Report	<input type="checkbox"/>	Environmental Impact Statement	<input type="checkbox"/>
CEQA Lead Agency (if determined): The California Department of Transportation (Caltrans) is the lead CEQA Agency for the project. FHWA assigned, and Caltrans has assumed, all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA.			
Estimated length of time (months) to obtain environmental approval:			4
Estimated person hours to complete identified tasks: Completing environmental document and work through construction phase.			700

## PEAR Technical Summaries

### Water Quality and Storm Water Runoff:

This project must comply with the Department Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order No.: 99-06-DWQ) and the Construction General Permit (Order No.: 2009-0009-DWQ), both issued by the State Water Resources Control Board (SWRCB). Under the auspices of the SWRCB, the San Francisco Bay Regional Water Quality Control Board (Region 2) has authority to enforce NPDES and Construction General Permit requirements. To comply with these permits, the Department shall consider and incorporate temporary and permanent Best Management Practices (BMPs) using Best Available Technology (BAT) to the Maximum Extent Practicable (MEP), in order to minimize, or prevent, any potential increased impact to existing water quality.

Per the Construction General Permit, development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) is required; this shall be prepared per Department Standard Special Provision (SSP) 07-345. The SWPPP is developed by the Contractor, and approved by the Department, prior to commencement of construction. In addition to the general permits mentioned above, it should be anticipated that a 401 Certification, issued by Region 2, will be required.

### Cultural Resources:

No concerns regarding built environment. Extent sensitive for archaeological resources may require HPSR and ESA Action Plan, which will begin with records search and Native American consultation. ASR may be required due to ground disturbance proposed at various locations that may not have been subject to previous or recent archaeological survey. If no sites are located after ASR, records search, and Native American consultation may be screenable. XP1 may be required if ground disturbing activities are situated in areas not subject to fill episodes and which have not been surveyed previously.

### Hazardous Waste/Materials:

The proposed pavement grinding and resurfacing work has no hazardous material or waste issues to address in the PEAR. The project scope does include the replacement of metal beam guard railing; this work will generate treated-wood waste that must be handled and disposed of according to applicable regulations. These requirements will be specified in the PS&E via a standard special provision.

### Biological Environment:

Caltrans Biologist, Fernando A. Martinez performed a review of threatened and endangered species using the USFWS Endangered Species List website ([http://www.fws.gov/sacramento/es/spp\\_list.htm](http://www.fws.gov/sacramento/es/spp_list.htm)) and the California Natural Diversity Database (CNDDDB, California Department of Fish and Game) on September 1, 2011. This project occurs within the Vine Hill, Benicia, Cordelia, and Fairfield U.S. Geological Survey (USGS) quadrangles. Fernando assessed this location for potential biological constraints to the completion of this project using photographs and aerial images. A site visit will need to be conducted to further assess the project location.

### Habitat

The proposed work area passes through a high volume traffic area, and the proposed areas of construction consist primarily of paved or dirt shoulders with minimal vegetation. The vegetated areas in the adjacent shoulder and median consist of ruderal grass, low growing annual/perennial vegetation and sparse non-native trees with small patches scrub. Trees and shrubs located within this right-of-way area are mainly highway landscaping, but may also contain a small number volunteer plants. A site visit will need to be conducted in order to finalize assessment for vegetative communities. Bird nest surveys should be conducted during the nesting season in areas where vegetation and trees may provide nesting habitat for migratory birds.

### Flora/Fauna

The site was surveyed for federal and state listed plant and animal species habitats using USFWS and CDGF databases, aerial images and photographs. The California Department of Fish and Game's California Natural Diversity Database (CNDDDB) list numerous threatened/endangered species that have the potential to occur in the Vine Hill, Benicia,

Cordelia, and Fairfield USGS quadrangles, which cover the project area (Table 1). Flora and fauna is limited in the project location. Flora is limited to the median and shoulders. Proximity to I-680 would limit the existence of fauna on the project site, however habitat disturbances for the California red-legged frog, California black rail, salt-marsh harvest mouse, and Swainson's hawk have been noted throughout the proposed project vicinity. A site visit will need to be conducted in order to finalize assessments for listed plant or animal species; however Section 7 consultation should be anticipated for any off-pavement work.

Table 1. CNDDDB results in Vine Hill, Benicia, Cordelia, Fairfield USGS quadrangles.

Common Name	Scientific Name	Listing Status*	
		Federal	State
soft bird's-beak	<i>Chloropyrin molle ssp. molle</i>	E	R
Contra Costa goldfields	<i>Lasthenia conjugens</i>	E	-
Suisun thistle	<i>Cirsium hydrophilum var. hydrophilum</i>	E	-
Tiburon paintbrush	<i>Castilleja affinis ssp. neglecta</i>	E	T
Mason's lilaeopsis	<i>Lilaeopsis masonii</i>	-	R
Showy rancheria clover	<i>Trifolium amoenum</i>	E	-
callippe silverspot butterfly	<i>Speyeria callippe calippe</i>	E	-
California red-legged frog	<i>Rana draytonii</i>	T	-
Alameda whipsnake	<i>Masticphis lateralis euryxanthus</i>	T	T
salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	E	E
Conservancy fairy shrimp	<i>Branchinecta conservation</i>	E	
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T	-
California freshwater shrimp	<i>Syncaris pacifica</i>	E	
giant garter snake	<i>Thamnophis gigas</i>	T	T
California tiger salamander	<i>Syncaris pacifica</i>	T	T
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T	
delta green ground beetle	<i>Elaphrus viridis</i>	T	
green sturgeon	green sturgeon	T	
delta smelt	<i>Hypomesus transpacificus</i>	T	E
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	T	-
Central Valley spring-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	T	T
winter-run chinook salmon	<i>Oncorhynchus tshawytscha</i>	E	C
western snowy plover	<i>Charadrius alexandrinus nivosus</i>	T	-
Swainson's hawk	<i>Buteo swainsoni</i>	-	T
California brown pelican	<i>Pelecanus occidentalis californicus</i>	E	
California clapper rail	<i>Rallus longirostris obsoletus</i>	E	E
California black rail	<i>Laterallus jamaicensis coturniculus</i>	-	T
California least tern	<i>Sternula antillarum browni</i>	E	E

\*Status: E = Endangered, T = Threatened, R = Rare, C = Candidate

Caltrans concludes that this project will not have an effect to listed species for any rehabilitation or improvements confined to existing paved footprints and disturbed road shoulders within existing Caltrans' right of ways. It is Caltrans' biologist understanding

that no additional impacts will be incurred on any unpaved surfaces. Should there be any changes to these plans; the biologist will need additional site visits to determine any additional impacts. Should any rehabilitations or improvements be conducted off-pavement within any sensitive areas with known occurrences, Section 7 consultation should be anticipated prior to any construction activities.

**Wetlands/Water:**

Any rehabilitations or improvements which may affect wetlands or waterways will require a site visit in order to finalize assessment based upon final plans. Should special aquatic features be disturbed, USACE 404 and CDFG 1602 permits will be required. Should permits be required, Section 7 consultation will also be required. Caltrans' standard BMPs will provide protection within these areas for this project (see Constraints section).

**Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703-711) protects migratory birds from unlawful activities. Any work within the project limits during nesting season will require protections for Migratory Nesting Birds. Caltrans' constraints measures will provide protection for these species for this project (see Constraints section).

**Permits**

A Section 7 consultation with the USFWS will be necessary for any rehabilitation or improvements not confined to paved surfaces or any drainage improvements. Formal consultation should be expected due to known occurrences of California red-legged frog, California black rail, salt-marsh harvest mouse, and Swainson's hawk (Fig. 1-3). If drainage modifications are made, as described in the project description, a USACE NWP 404, CDFG 1602, and BCDC permit will also be required.

**Schedule**

Permit	Required	Time Frame
USFWS Biological Opinion	with drainage work	24-36 months
USACE 404 Permit	with drainage work	12-16 months
CDFG 1602	with drainage work	6-8 months
Fish Passage	with drainage work	6-8 months
BCDC	with drainage work	12 months

**Constraints**

The following measures are necessary to protect biological resources:

- Contractors should utilize Caltrans standard Best Management Practices (BMPs).

- Contractors will conduct all pavement rehabilitations and improvements while operating on existing paved footprints.
- Any off-pavement rehabilitation or improvements made will require further assessments, surveys, permitting and Section 7 consultation should be anticipated.
- Any waste materials or products (i.e. pavement grindings) shall be disposed of at an approved facility, or certified landfill
- All staging will occur within existing paved or gravel turnout areas. Any staging in vegetated areas (grass and low-growing vegetation) or off-pavement will require additional assessments from a Caltrans biologist.
- Standard BMPs material shall be in place under any construction equipment being stored, refueled, or maintained at staging area.
- Contractors must implement Caltrans standard BMPs to ensure water quality and limit air borne erosion.
- Environmentally Sensitive Areas (ESAs), including special aquatic features will be identified by ESA (high visibility) orange fencing to be established by Caltrans biologist and the RE prior to construction.
- Any improvements or alterations to any drainage or culverts will require further assessments by a Caltrans biologist to establish any USACE and CDFG jurisdictional areas. Additionally, permitting measures should be anticipated for any work occurring within these areas.
- If clearing and grubbing is required, as a precaution, a Caltrans Biologist will need to conduct additional site assessments to rule out the presence of any species of concern.
- Biologist will need to conduct nesting bird surveys between February 1 and August 15 to comply with the MBTA. A Caltrans Biologist will need three days notice prior to commencement of construction activities to perform a survey for nesting birds.

It is in Caltrans opinion that by complying with these constraints that the proposed work at this location will not affect any listed species.

#### Further Inquires for Design/Construction

- Where will the utility relocation and ground disturbance occur?
- Will there be a need for additional site assessments for staging locations?
- Will there be any effects to existing waterways with these improvements?

All design changes will require reassessment of biological resources and may delay project. Please forward all plans to the Office of Biological Sciences and Permits as soon as possible.

## 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 Scope Summary Report (PSSR). 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 alternatives, or in environmental laws, regulations, or guidelines.

## Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

Celia McCreary  
Environmental Branch Chief

Date: 9/16/11

[Signature]  
Project Manager

Date: 9/16/11

## REQUIRED ATTACHMENTS:

- PEAR Environmental Studies Checklist
- PEAR Environmental Commitments Cost Estimate

## Environmental Technical Reports or Studies Required (3G650K)

	Study or Report	Document Text Only	Not Anticipated
<b>Community Impact Study</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Farmland</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Section 4(f) Evaluation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Visual Resources</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Water Quality</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Floodplain Evaluation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Noise Study</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Air Quality Study</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Paleontology</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Wild and Scenic River Consistency</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cumulative Impacts</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Growth Inducing/Indirect Impacts</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cultural</b>			
Archaeological Survey Report (ASR)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Historic Resources Evaluation Report (HRER)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historic Property Survey Report (HPSR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historical Resource Compliance Report SHPO / PRC 5024.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other ESA Action Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hazardous Waste</b>			
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PSI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Biological</b>			
Endangered Species (Federal)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Endangered Species (State)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Species of Concern (CNPS, USFS, BLM, S, F)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Biological Opinion (USFWS, NMFS, State)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fish Passage Barriers Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Natural Environment Study	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NEPA 404 Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**PEAR Mitigation and Compliance Cost Estimate\***

District 04	County SOL	Route 680	PM 0.0-13.10	EA 3G650K
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Description of Work: Pavement Preservation

Project Manager	Patrick Pang	Date	9/16/11
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Prepared by	Phillip Badal	Date	
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	Mitigation			Compliance
	Project Feature <sup>1</sup>	Enviro. Obligation <sup>2</sup>	Statutory Require. <sup>3</sup>	Permit & Agreement <sup>4</sup>
Fish & Game 1602 Agreement				
Coastal Development Permit				
State Lands Agreement				
NPDES Permit				
COE 404 Permit- Nationwide				
COE 401 Permit				
COE Section 10 Permit				
COE Section 9 Permit				
Other:				
Noise attenuation				
Special landscaping				
Archaeological				
Biological				
Wetland/riparian				
Historical				
Scenic resources				
Asbestos Testing/Mitigation				
Other: Landscaping				
<b>TOTAL (included in project cost estimate)</b>	TBD	TBD	TBD	TBD

Costs are to include all costs to complete the commitment including: 1) capital outlay and staff support; 2) cost of right-of-way or easements; 3) long-term monitoring and reporting; and 4) any follow-up maintenance.

<sup>1</sup> Mitigation that Caltrans would normally do if not required by a permit or environmental agreement.

<sup>2</sup> Mitigation that Caltrans would not normally do but is required by conditions of a permit or environmental agreement.

<sup>3</sup> Mitigation that Caltrans would not normally do and is not required by a permit or Enviro. Agreement, but is required by a law.

<sup>4</sup> Non-mitigation Caltrans would not normally do but is required by conditions of a permit or agreement.

Attachment E

# Right of Way Data Sheet

**RIGHT OF WAY DATA SHEET**

TO: Office of Design - SHOPP

Date 9/8/2011 D.S. # 6000  
 Dist. 04 Co. Sol Rte 680 PM 0.0/13.1  
 EA 04-3G650K (04 )

ATTN: MICHAEL T. NGUYEN

Project Description: Pavement Rehabilitation

SUBJECT: Right of Way Data - Alternate No. \_\_\_\_\_

1. Right of Way Cost Estimate:

	Current Value (Future Use)	Escalation Rate	Escalated Value
A. Acquisition, including Excess Lands, Damages, and Goodwill	<u>\$0.00</u>	%	<u>\$0.00</u>
Project Permit Fees			<u>\$0.00</u>
Grantor's Appraisal Cost			<u>\$0.00</u>
B. Utility Relocation (State Share)	<u>\$10,000.00</u>	%	<u>\$10,000.00</u>
C. Railroad (from page 6)			<u>\$0.00</u>
D. Relocation Assistance	<u>\$0.00</u>	%	<u>\$0.00</u>
E. Clearance Demolition	<u>\$0.00</u>	%	<u>\$0.00</u>
F. Title and Escrow Fees	<u>\$0.00</u>	%	<u>\$0.00</u>
G. <u>TOTAL ESCALATED VALUE</u>			<u>\$10,000.00</u>
H. Construction Contract Work	<u>\$0.00</u>		

2. Anticipated Date of Right of Way Certification \_\_\_\_\_

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements
X _____		U4-1 _____	None _____
A _____		-2 _____	C&M Agrmt _____
B _____		-3 _____	Svc Cont. _____
C _____		-4 _____	Design _____
D _____		U5-7 <u>2</u>	Const. _____
E <u>XXXX</u>		-8 _____	Lic/RE/Clauses <u>1</u>
F <u>XXXX</u>		-9 _____	
<b>Misc R/W Work</b>			
RAP Displ			<u>0</u>
Clear Demo			<u>0</u>
Const. Permits			<u>0</u>
Condemnation			<u>0</u>
Total	<u>0</u>		

Areas: Right of Way \_\_\_\_\_ No. Excess Parcels \_\_\_\_\_ Excess \_\_\_\_\_

Enter PMCS Screens 9/10/11 By [Signature]

Enter AGRE Screen (Railroad Data Only) \_\_\_\_\_ By \_\_\_\_\_

4. Are there any major items of construction contract work?  
 Yes  No  (If yes, explain)
5. Provide a general description of the right of way and excess lands required(zoning, use, major improvements critical or sensitive parcels, etc.).  
 No right of way required.
6. Is there an effect on assessed valuation? (If yes explain)  
 Yes  Not Significant  No
7. Are utility facilities or rights of way affected? Yes  No   
 If yes, attach Utility Information Sheet Exhibit 01-01-05)
8. Are railroad facilities or rights of way affected? Yes  No   
 If yes, attach Railroad Information Sheet Exhibit 01-01-06)
9. Were any previously unidentified sites with hazardous waste and/or material found?  
 Yes  None evident   
 (If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.011)
10. Are RAP displacements required? Yes  No   
 (If yes, provide the following information)
- No. of single family \_\_\_\_\_ No. of business/non profit \_\_\_\_\_  
 No. of multi-family \_\_\_\_\_ No. of farms \_\_\_\_\_
- Based on Draft / Final Relocation Impact Statement / Study dated \_\_\_\_\_, it is anticipated that sufficient replacement housing will / will not be available without Last Resort Housing.
11. Are material borrow and / or disposal sites required? Yes  No   
 (If yes, explain)
12. Are there potential relinquishments / abandonments? Yes  No   
 (If yes, explain)
13. Are there any existing and/or potential Airspace sites? Yes  No   
 (If yes, explain)

14. Are there Environmental Mitigation costs? Yes  No   
(If yes, explain)

15. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if District proposes less than PMCS lead time and / or if significant pressures for project advancement are anticipated.)

PYPSCAN lead time (from Regular R/W to project certification) 12 months.

16. Is it anticipated that all Right of Way work be performed by CALTRANS staff?  
Yes  No  (If no, discuss)

**Assumptions and Limiting Conditions**

- This data sheet was completed without a hazardous waste/materials report.
- Information on this data sheet was based on maps provided by Michael T. Nguyen on 9/1/2011

Evaluation Prepared By: Renata Frey

Right of Way: Name Renata Frey Date 9/8/11

Railroad: Name John Gray Date 9-1-11

Utilities: Name [Signature] Date 9/8/11

Recommended for Approval:

[Signature]

Right of Way Capital Cost Coordinator

I have personally reviewed this Right of Way Data Sheet and all supporting information. It is my opinion that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set fourth, and find this Data Sheet complete and current.

[Signature]  
Chief, R/W Appraisal Services

9/8/11  
Date

cc: Program Manager  
Project Manger

UTILITY INFORMATION SHEET

1. Utility owners located within project limits:  
AT&T, PG&E
  
2. Facilities potentially impacted by project (if known, include Owners(s) & facility type(s)):
  
3. Anticipated Workload:  

<u>  X  </u>	Utility Verification required
<u>  X  </u>	Positive Identification
<u>      </u>	Utility Relocation
<u>      </u>	Other (Specify)
  
4. Additional information concerning anticipated utility involvements (include limiting conditions and a narrative addressing likelihood that conflicts will occur);

           Involves possible relocation of electric transmission facilities  
(If X'd, Data sheet should be forwarded to environmental)

5. PMCS input information

- U4-1        Owner Expense Involvements
- U4-2        State Expense Involvements  
(Conventional, No Fed Aid)
- U4-3        State Expense Involvements  
(Freeway, No Fed Aid)
- U4-4        State Expense Involvements  
(Conventional or Freeway, Fed Aid)
  
- U5-7   2   Verifications - without involvements
- U5-8        Verifications - 50% involvements
- U5-9        Verifications resulting in involvements

NOTE: The sum of U-4's must equal the sum of 1/2 of the U5-8's and all of the U5-9's.

ESTIMATED STATE SHARE OF COSTS \$           10000          

Prepared by: Nick Psiol



Right of Way Utility Coordinator

  9/12/10    
Date

**RAILROAD INFORMATION SHEET**

1. Describe railroad facilities or right of way affected.  
UPRR
  
2. 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 construction of a facility to perpetuate the rail services? (See Procedural Handbook Volume 4a, Chapter 440 for further detail.)  
 Yes  No  (If yes, explain)
  
3. Discuss types of agreements and rights required from the railroads. Are grade crossings requiring service contracts, or grade separations requiring construction and maintenance agreements involved?
  
4. Remarks (Nonoperating railroad right of way involved?)

5. PMCS Input Information

	<u>RR Involvements</u>	<u>Estimated Cost</u>
None	_____	
C&M Agreement	_____	\$ _____
Svc Contract	_____	\$ _____
	Design _____	
	Const. _____	
Lic/RE/Clauses	_____ 1	
<b>TOTAL ESTIMATED COST</b>	<b>\$ _____ 0</b>	

Prepared by: Pat Coggins

*Pat Coggins*  
 Right of Way Railroad Coordinator

9-8-11  
 Date

Attachment F

Scoping Team Field-Review  
Attendance Roster

Field Review Team Attendance Roster  
Sol 680 CAMP  
043G650K  
PID Phase

Date: August 12, 2011

Attendees: Brian Barber (Materials)  
Donald Breeden (Design-SHOPP)

Date: September 2, 2011

Attendees: Donald Breeden (Design-SHOPP)  
William Fong (Design-SHOPP)

Attachment G

# Materials Recommendation

## Memorandum



*Flex your power!  
Be energy efficient!*

To: MR. GHULAM POPAL  
District Branch Chief  
Office Of Design SHOPP

Date: August 19, 2011

File: 4-SOL-680 PM 0.0-13.1  
4-0708-TBA  
HMA Overlay

Attention: Don Breeden

From: BRIAN W. BARBER  
Materials Design Engineer  
Office Of Engineering Services I - Materials B

Subject: Materials Recommendation

As requested in your memorandum dated August 12, 2011 we provide herein pavement design recommendations for a CAPM project. The project proposes to resurface the existing mainline and all ramps on Interstate 680 from the Benicia-Martinez Bridge to Cordelia Junction Interstate 80, located in Solano County from PM 0.0 to PM 13.1.

Your office has requested we provide preliminary materials recommendations for a pre Preliminary Initiation Document (PID) estimate to overlay the mainline and ramps, including digouts, crack sealing and grinding of miscellaneous pavement.

Information provided with the 8/12/11 memorandum included an undated Site Plan Map, undated.

### Project Information Review Summary

In preparation for our recommendations we reviewed available information within the project limits including a Flexible Pavement Deflection Study Report dated February 16, 2000; a 2008 Pavement Condition Survey (PCS), and available As-built plans. The following was noted from the information reviewed above:

- The 2000 Deflection Study Report did not recommend an AC overlay for structural adequacy improvement, for either the Route 680 mainline nor ramps, based on deflection data results at that time. Coring data from the 2000 deflection study indicated the

Mr. Ghulam Popal  
Attn: Don Breeden  
August 19, 2011  
Page 2

mainline pavement average AC thickness was 0.96 feet. Core data for selected ramps showed AC pavement thicknesses ranged from 0.59 to 0.95 feet.

- The 2008 PCS recorded relatively high International Roughness Index (IRI) values (i.e. 170 or greater) at several locations, moderate to high ABC cracking; and open cracks.
- Review of available as-builts indicate the existing mainline pavement section in the travelled way to consist of 0.20' RAC-G; 0.06 OGAC; 0.17' AC(A); 0.33' AC(B); 0.68' AB(2); [0.92' AS(2) or 0.50' AS(2) and 1.00' PM w/ underdrains]. (Note: The 2000 deflection study report core data likely provides a more accurate estimate of the current total AC thickness along the mainline as discussed above).

### **Field Site Visit**

A site field visit was conducted on 8/12/11 with Don Breeden (04 Design SHOPP) and Brian Barber (04 Materials).

### Mainline

Visual review of the existing Route 680 mainline showed moderate to intermittent high AC cracking, primarily in the outside # 2 lane wheel path. Noted frequent pavement AC aggregate raveling. The inside and outside shoulders appeared in relatively good intact condition with a dry faded appearance. The outside AC shoulders were mostly about 10 feet in width and the inside AC shoulders approximately 2 to 5 feet in width. There were rumble strips in both the inside and outside AC shoulders (Note: The mainline outside shoulders were widened and rumble strips installed in 2005). Along most of the mainline route there is an unpaved earth median with a median wood post/metal guardrail. Near the beginning and end of the mainline the project limits there is an AC paved median with a concrete median barrier.

### Ramps

Visual review of the existing ramps including the travelled way and shoulders within the project limits showed varying degrees of pavement distress of fair-moderate to high AC pavement cracking, rutting, and raveling. AC patching and prior digouts were noted on some ramps. Noted AC and PCC curbs at the inside and outside of edge of the ramp pavement. Noted what appeared to have been newer AC widening of several ramp shoulders.

Mr. Ghulam Popal  
Attn: Don Breeden  
August 19, 2011  
Page 3

Based on the information reviewed as described above, and the interpretation of current CAPM guidelines, our proposed preliminary pavement designs for this project are presented below for the Route 680 mainline and ramps within the stated project limits.

## **PRELIMINARY PAVEMENT RECOMMENDATIONS**

### **Route 680 Mainline Pavement Design**

Grind and remove 0.25' of the existing AC across the mainline travelled-way pavement surface. Replace with a 0.1' HMA-A leveling course; place geosynthetic paving mat; and then 0.15' RHMA-G.

For the inside and outside mainline shoulders grind 0.1' across the entire shoulder, excluding and preserving the rumble strips. Replace with 0.1' RHMA-G.

Notes:

HMA-A=Hot Mix Asphalt, Type A

RHMA-G=Rubberized Hot Mix Asphalt, Type G

Geosynthetic Paving Mat (Per Section 88-1.07A, Amendments to the Standard Specification)

- Prior to the AC grinding and HMA/RHMA replacement perform a field review to identify distressed pavement areas for digout repairs. Digouts typically are recommended for distressed pavement areas such rutting greater than 1", concentrated "alligator" type cracking and/or loose or spalling pavement. Perform digouts to a depth of 6" or to depth of the existing AC pavement layer, whichever is less in thickness. In addition, seal cracks wider than 1/4".

### **Route 680 Ramp/Connector Pavement Design**

Grind and remove 0.20' of the AC pavement on all ramps and the 780/80-680 connectors including the travelled-way and the inside and outside shoulders. Replace with a 0.20' RHMA-G.

Notes:

RHMA-G=Rubberized Hot Mix Asphalt, Type G

- Prior to the AC grinding and RHMA replacement perform a field review to identify distressed pavement areas for digout repairs. Digouts typically are recommended for distressed pavement areas such rutting greater than 1", concentrated "alligator" type cracking and/or loose or spalling pavement. Perform digouts to a depth of 6" or to depth

Mr. Ghulam Popal  
Attn: Don Breeden  
August 19, 2011  
Page 4

of the existing AC pavement layer, whichever is less in thickness. In addition, seal cracks wider than 1/4".

Our pavement recommendations presented above are for preliminary pavement design estimates. We will provide final pavement design recommendations during the PS&E phase of the project when updated information is provided on project design and funding requirements.

If you have any comments or questions, please contact Brian Barber at 622-5490.

c: Daily File, Route File

BBarber/dg/SOL-680, EA 0708 TBA, CAPM HMA Overlay.

Attachment H

Transportation Management Plan  
(TMP) Data Sheet

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

Co/Rte/PM      SOL/680/0.0-13.1      EA    3G650K      Project Engineer    William Fong  
 Project Limit      In Solano Co. between Benicia and Fairfield on Rte 680 from 0.0 miles just north of Rte 780 to 13.10 miles just south of Rte 80  
 Project Description    Grind and repave the asphalt concrete roadway surface on mainlinr and ramps, replace AC Dike, replace MBGRs, perform digouts.

1) Public Information

- |                                     |  |          |
|-------------------------------------|--|----------|
| <input type="checkbox"/>            | a. Brochures and Mailers   | \$       |
| <input type="checkbox"/>            | b. Press Release   |          |
| <input type="checkbox"/>            | c. Paid Advertising  | \$       |
| <input type="checkbox"/>            | d. Public Information Center/Kiosk   | \$       |
| <input type="checkbox"/>            | e. Public Meeting/Speakers Bureau  |          |
| <input type="checkbox"/>            | f. Telephone Hotline   |          |
| <input type="checkbox"/>            | g. Internet, E-mail  |          |
| <input type="checkbox"/>            | h. Notification to impacted groups<br>(i.e. bicycle users, pedestrians with disabilities, others...) |          |
| <input checked="" type="checkbox"/> | i. Others _____  | \$10,000 |

2) Motorist Information Strategies

- |                                     |  |          |
|-------------------------------------|--|----------|
| <input type="checkbox"/>            | a. Changeable Message Signs (Fixed)                      | \$       |
| <input checked="" type="checkbox"/> | b. Changeable Message Signs (Portable)                   | \$50,000 |
| <input checked="" type="checkbox"/> | c. Ground Mounted Signs                                  | \$20,000 |
| <input type="checkbox"/>            | d. Highway Advisory Radio                                | \$       |
| <input type="checkbox"/>            | e. Caltrans Highway Information Network (CHIN)           |          |
| <input type="checkbox"/>            | f. Detour maps (i.e. bicycle, vehicle, pedestrian...etc) |          |
| <input type="checkbox"/>            | g. Revised Transit Schedules/maps                        |          |
| <input type="checkbox"/>            | h. Bicycle community information                         |          |

\$

3) Incident Management

- |                                     |  |           |
|-------------------------------------|--|-----------|
| <input checked="" type="checkbox"/> | a. Construction Zone Enhanced Enforcement Program (COZEEP)   | \$200,000 |
| <input type="checkbox"/>            | b. Freeway Service Patrol                                    | \$        |
| <input type="checkbox"/>            | c. Traffic Management Team                                   |           |
| <input type="checkbox"/>            | d. Helicopter Surveillance                                   | \$        |
| <input type="checkbox"/>            | e. Traffic Surveillance Stations<br>(Loop Detector and CCTV) | \$        |

# TMP Data Sheet (cont.)

4) Construction Strategies

- a. Lane Closure Chart
- b. Reversible Lanes
- c. Total Facility Closure
- d. Contra Flow
- e. Truck Traffic Restrictions \$ \_\_\_\_\_
- f. Reduced Speed Zone \$ \_\_\_\_\_
- g. Connector and Ramp Closures
- h. Incentive and Disincentive \$ \_\_\_\_\_
- i. Moveable Barrier \$ \_\_\_\_\_
- \_\_\_\_\_ \$ \_\_\_\_\_
- k. 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) Alternate 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 = \$280,000**

\*Please note that any change in project scope, schedule, or cost will require resubmittal of TMP Data Sheet request.

PREPARED BY Lenka Pleskotova DATE 9/16/11

APPROVAL RECOMMENDED BY Shein Lin DATE 9/16/11

Attachment I

Storm Water Data Report – Signature  
Sheet

