



# Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

## Monthly Progress Report October 2007



TOLL BRIDGE PROGRAM  
OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

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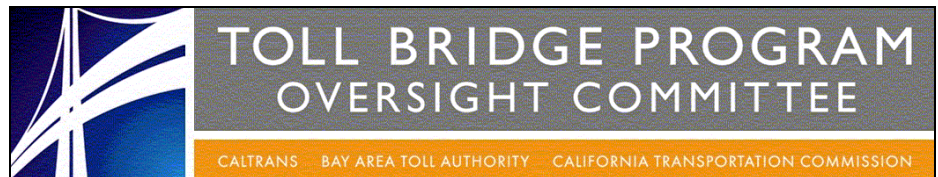




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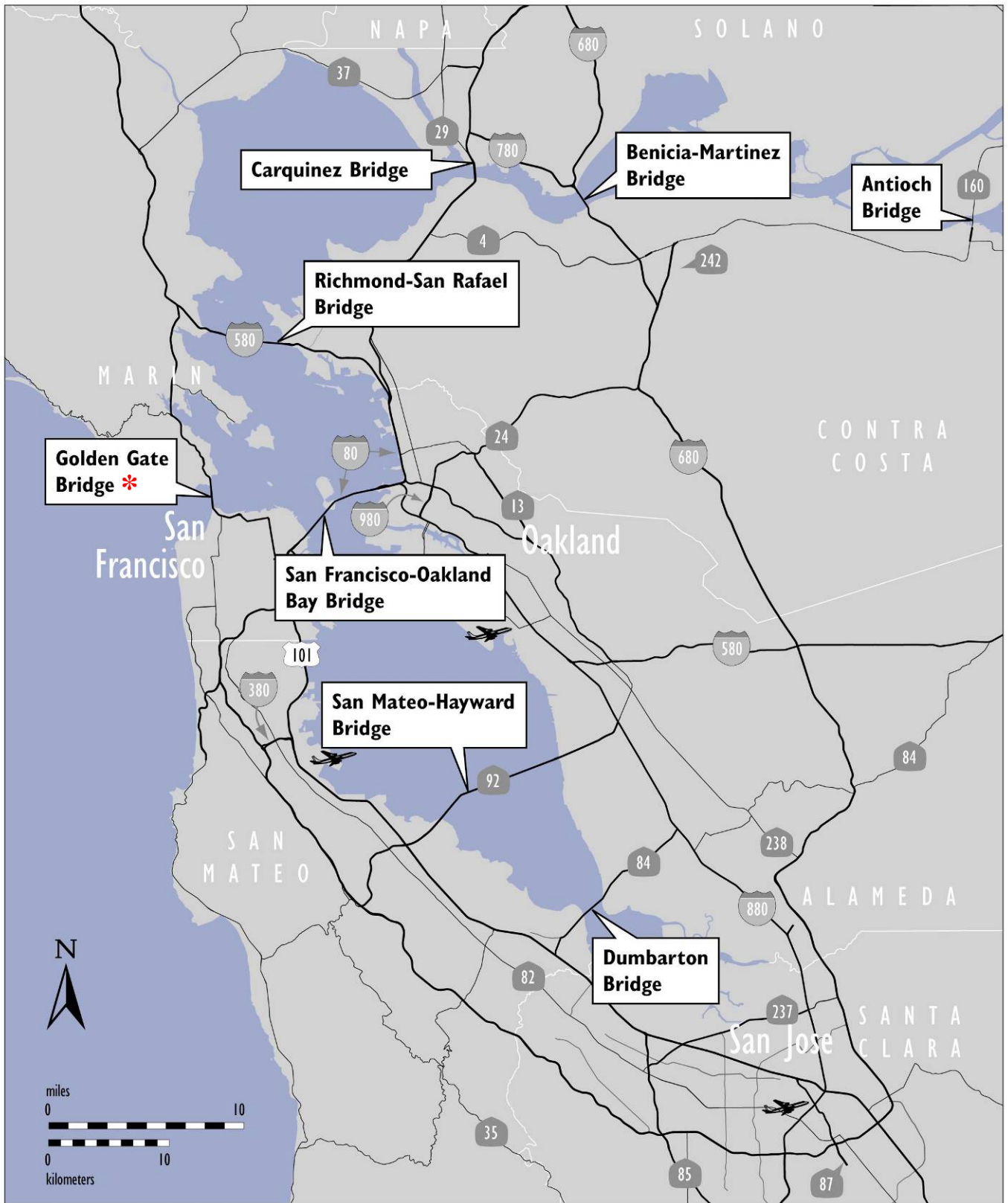




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### Toll Bridges of the San Francisco Bay Area



\* Under the Jurisdiction of the Golden Gate Bridge, Highway and Transportation District

## INTRODUCTION

In July 2005, Assembly Bill 144, (AB 144) Hancock created the Toll Bridge Project Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge project and the state toll bridge seismic retrofit program projects. Comprising the Caltrans' Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission (CTC), the TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as being under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Eastbound Carquinez Bridge Seismic Retrofit	Complete
New Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects, called the Regional Measure 1 (RM1) Toll Bridge Program, under the responsibility of the BATA. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans (CT) will continue to report on their progress as an informational item. The RM1 program includes:

RM1 Projects	Open to Traffic Status
1927 Carquinez Bridge Demolition	Construction
Interstate 880/State Route 92 Interchange Reconstruction	Construction
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

This report focuses on identifying critical project issues and monitoring project cost and schedule performance for the projects as measured against approved budgets and schedule milestones. This report is intended to fulfill Caltrans' requirement to provide monthly project progress reporting to the TBPOC under Section 30952.05 of the Streets and Highway Code.

## EXECUTIVE SUMMARY

## Toll Bridge Seismic Retrofit Program—Cost (\$ Millions)

Project	Work Status	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>SFOBB East Span Replacement Project</b>								
Capital Outlay Support		959.4	-	959.4	534.5	977.1	17.7	●
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	1,187.3	1,293.0	-	●
SAS E2/T1 Foundations	Construction	313.5	-	313.5	248.1	313.5	-	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	301.5	1,767.4	13.7	●
YBI Detour	Design/Const	131.9	202.5	334.4	106.3	334.4	-	●
YBI Transition Structures	Design	299.3	(23.2)	276.1	-	276.1	-	●
* YBITS Contract No. 1					-	214.3		
* YBITS Contract No. 2					-	58.5		
* YBITS Contract No. 3 - Landscape					-	3.3		
Oakland Touchdown (OTD)		283.8	-	283.8	18.7	302.5	18.7	
* OTD Submarine Cable	Complete				7.8	9.6		●
* OTD No. 1 (Westbound)	Construction				10.9	226.5		●
* OTD No. 2 (Eastbound)	Design				-	62.0		●
* OTD Electrical Systems	Design				-	4.4		●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Construction	15.0	3.3	18.3	14.5	18.3	-	●
East Span Completed Projects		90.3	-	90.3	89.2	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.8	72.4	-	●
Other Budgeted Capital		35.1	(3.3)	31.8	0.6	7.7	(24.1)	
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,539.5</b>	<b>5,674.7</b>	<b>8.9</b>	
<b>SFOBB West Approach Replacement</b>	Construction							●
Capital Outlay Support		120.0	-	120.0	98.0	120.0	-	
Capital Outlay Construction		309.0	-	309.0	257.3	309.0	-	●
<b>Total SFOBB West Approach Replacement</b>		<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>355.3</b>	<b>429.0</b>	<b>-</b>	
<b>Richmond-San Rafael Bridge Retrofit</b>	Complete							●
Capital Outlay Support		134.0	(7.0)	127.0	126.6	127.0	-	
Capital Outlay Construction & Right-of-Way		780.0	(82.0)	698.0	666.6	698.0	-	
<b>Total Richmond-San Rafael Bridge Retrofit</b>		<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>793.2</b>	<b>825.0</b>	<b>-</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.1	705.6	-	
<b>Total Program Completed Projects</b>		<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.5</b>	<b>925.4</b>	<b>-</b>	
<b>Miscellaneous Program Costs</b>		<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.7</b>	<b>30.0</b>	<b>-</b>	
<b>Program Contingency</b>		<b>900.0</b>	<b>(90.2)</b>	<b>809.8</b>	<b>-</b>	<b>800.9</b>	<b>(8.9)</b>	
<b>Total Toll Bridge Seismic Retrofit Program</b>		<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>4,630.2</b>	<b>8,685.0</b>	<b>-</b>	

● Within Approved Current Schedule and Budget

● Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

\*Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available program funds has been made available by the Treasure Island Development Authority.

Notes: Details may not sum to totals due to rounding effects.

Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

## Toll Bridge Seismic Retrofit Program—Schedule

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (09/2007)	Project Complete Schedule Forecast (09/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
SFOBB East Span Replacement Project Skyway	Apr 07	8	Dec 07	Dec 07	-	●	See page 10.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	See Note.
YBI Detour	Jul 07	36	Jun 10	Jun 10	-	●	See discussion on pages 18 and 19.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	●	
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	
• OTD Submarine Cable	n/a		Jan 08	Jan 08	-	●	See page 21
• OTD Westbound	n/a		Jan 10	Jan 10	-	●	
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	See Note.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	See Note.
Stormwater Treatment Measures	Mar 08	-	Mar 08	Mar 08	-	●	
Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	●	See Note.
Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	●	See Note.
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Jan 2009	(7)	●	
Open to Traffic Date: Mainline	n/a	-	April 2008	April 2008	-	●	
Richmond-San Rafael Bridge							
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of contract October 28, 2005. \$89 million has been transferred to Program Contingency.
• Public Access Project	n/a	-	May 07	Sept 07	4	●	See page 31.

*Note: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB144/SB66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract.*

## Regional Measure 1 Program—Cost (\$ Millions)

Project	Work Status	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>New Benicia-Martinez Bridge Project</b>	Construction							●
Capital Outlay Support		157.1	36.5	193.6	175.4	189.1	(4.5)	
Capital Outlay Construction		861.6	176.0	1,037.6	946.6	1,037.6	-	
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	-	
Project Reserve		20.8	1.7	22.5	-	27.0	4.5	
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>214.1</b>	<b>1,274.0</b>	<b>1,134.3</b>	<b>1,274.0</b>	<b>-</b>	
<b>Carquinez Bridge Replacement Project</b>	Construction							●
Capital Outlay Support		124.4	(0.2)	124.2	121.2	122.4	(1.8)	
Capital Outlay Construction		381.2	3.2	384.4	373.0	384.5	0.1	
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.4	(0.1)	
Project Reserve		12.1	(3.0)	9.1	-	0.9	(8.2)	
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>504.1</b>	<b>518.2</b>	<b>(10.0)</b>	
<b>I-880/SR-92 Interchange Reconstruction</b>	Construction							●
Capital Outlay Support		28.8	26.2	55.0	33.2	55.0	-	
Capital Outlay Construction		94.8	60.2	155.0	-	155.0	-	
Capital Outlay Right-of-Way		9.9	5.1	15.0	8.3	15.0	-	
Project Reserve		0.3	19.7	20.0	-	20.0	-	
<b>Total I-880/SR-92 Interchange Reconstruction</b>		<b>133.8</b>	<b>111.2</b>	<b>245.0</b>	<b>41.5</b>	<b>245.0</b>	<b>-</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		62.0	(5.0)	57.0	57.4	58.8	1.8	
Capital Outlay Construction		324.4	3.6	328.0	308.0	314.0	(14.0)	
Capital Outlay Right-of-Way		1.7	-	1.7	0.5	0.8	(0.9)	
Project Reserve		2.6	1.4	4.0	-	6.6	2.6	
<b>Total Program Completed Projects</b>		<b>390.7</b>	<b>-</b>	<b>390.7</b>	<b>365.9</b>	<b>380.2</b>	<b>(10.5)</b>	
<b>Total Regional Measure 1 Program</b>		<b>2,112.6</b>	<b>325.3</b>	<b>2,437.9</b>	<b>2,045.8</b>	<b>2,417.4</b>	<b>(20.5)</b>	

● Within Approved Current Schedule and Budget

● Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

Note: Details may not sum to totals due to rounding effects.

Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

## Regional Measure 1 Program—Schedule

Project	BATA Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (09/2007)	Project Complete Schedule Forecast (09/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
<b>New Benicia-Martinez Bridge Project</b>							
• New Benicia-Martinez Bridge	Dec 07	-	Oct 07	Oct 07	-	●	Bridge was opened on August 25, 2007.
• I-680/I-780 Interchange Replacement	Dec 07	-	Dec 07	Dec 07	-	●	
• Open to Traffic Date	Dec 07	-	Aug 07	Aug 07	-	●	
<b>1927 Carquinez Bridge Demolition Project</b>	Dec 07	-	Dec 07	Dec 07	-	●	
<b>I-880/SR-92 Interchange Reconstruction</b>	Nov 10	-	Jun 11	Jun 11		●	Contract was awarded on August 28, 2007 with the approval of the State budget.

## Highlights of Project/Program Activities and TBPOC Actions for October 2007

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### Toll Bridge Seismic Retrofit Program

#### SFOBB East Span Seismic Replacement Project

- ◆ On the Yerba Buena Island (YBI) Detour Contract, Caltrans and its contractor are now focusing on completing the YBI Advanced Work and the detour viaduct to be constructed just south of the existing bridge. The first sections of viaduct steel have arrived at the Port of San Francisco.
- ◆ On the Self-Anchored Suspension Span (SAS) E2/T1 Foundation Contract, Caltrans and its contractor have completed most of the eastbound E2 foundation and column and have poured the first lift of the westbound E2 column. Work is ongoing on the westbound E2 column as well as the column and piles head connections at the T1 foundation.
- ◆ On the Skyway Contract, all major structural work has been completed. The last two Hinge Pipe Beams were installed on the west end of the westbound structure. Ongoing punchlist work includes painting, overlay and installation of the railing and electrical work.
- ◆ On the SAS Superstructure Contract, Caltrans and its contractor are working on final trial mock-ups of the steel tower and deck sections. Civil construction work has started at the W2 foundation with falsework for the pier table. The contractor has fabricated three modules (out of nine) of the shearleg barge crane and has started temporary work at W2 necessary to erect and support the SAS during construction.

#### SFOBB West Approach Seismic Retrofit Project

- ◆ On the San Francisco-Oakland Bay Bridge West Approach Project, Caltrans is continuing with the final major phase of the project – the reconstruction of the eastbound I-80 approach structure from 5th Street to 2nd Street. Caltrans is forecasting that the final mainline traffic switch will occur in April 2009. Overall, the contract is forecast to be completed in January 2009.

#### Richmond-San Rafael Bridge Seismic Retrofit Project

- ◆ On Richmond-San Rafael Bridge Seismic Retrofit Project, Caltrans is concluding negotiations with regulatory agencies on pile driving issues and impacts to fisheries. A settlement is pending.

### Regional Measure 1 Program

#### New Benicia-Martinez Bridge Project

- ◆ On the New Benicia-Martinez Bridge Contract, the new bridge has been opened to traffic. Caltrans and its contractors are finishing final punchlist items, including electrical work.
- ◆ On October 31, 2007, Caltrans opened bids on a contract to modify the existing Benicia-Martinez Bridge to southbound only traffic. The apparent low bid was \$19.4 million less than the engineer's estimate. The contract is expected to take approximately two years.

#### I-880/SR-92 Interchange Project

- ◆ On the Interstate 880/State Route 92 Interchange Contract, the contract has been awarded to a joint venture of FCI Constructors and Granite Construction. Caltrans approved the contract in late September. Caltrans is working with utility companies on final electrical and telecommunication relocation.

#### New Carquinez Bridge Project

- ◆ On the 1927 Carquinez Bridge Demolition Contract, Caltrans and its contractor have completely removed the old Carquinez Bridge. With the completion in September of the westbound HOV lane from Cumming Skyways to Route 4 (under a separate Caltrans contract), Caltrans will be able to complete final roadway reconstruction and striping to open the westbound HOV lane across the Zampa Bridge to Cummings Skyway in November. Other civil work on the contract includes the realignment of Wanda Street and the construction of a new bike path, change order work and final site clean up.



## PROJECT / CONTRACT REPORTS

### Toll Bridge Seismic Retrofit Program

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#### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

- Skyway Contract
- Self-Anchored Suspension (SAS) E2/T1 Foundations Contract
- Self-Anchored Suspension (SAS) Superstructure Contract
- Yerba Buena Island (YBI)
  - Yerba Buena Island (YBI) Detour Contract
  - Yerba Buena Island (YBI) Transition Structure Contracts
- Oakland Touchdown (OTD)
  - Oakland Touchdown (OTD) Submarine Cable Relocation Contract
  - Oakland Touchdown (OTD) #1 Contract
  - Oakland Touchdown (OTD) #2 Contract
- Other Major Contracts
- Other Contracts and Related Project Work

#### San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

#### Richmond-San Rafael Bridge Seismic Retrofit Project

#### Other Completed Seismic Retrofit Projects

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

**Project Description:** The East Span will be seismically retrofitted through the complete replacement of the existing span. The remaining effort for this project consists of the following contracts: Skyway—construction of two parallel concrete structures, each approximately 1.3 miles in length; Self-Anchored Suspension (SAS) Foundation—construction of SAS marine foundations; SAS Superstructure—construction of a self-anchored 385-meter main span superstructure incorporating a 160-meter fabricated structural steel tower with a main cable and inclined suspenders that will support steel orthotropic decks; Yerba Buena Island (YBI) Detour—design and construction of a temporary double-deck bypass structure that will detour traffic to the existing SFOBB while completing the westerly permanent tie-in structure of the new East Span at Yerba Buena Island; YBI Structures—construction of a new structure connecting the western end of the self-anchored suspension to the Yerba Buena Island viaduct, which will be retrofitted; Oakland Touchdown—at the Oakland end of the East Span, construction of two parallel, cast-in-place post-tensioned concrete viaducts, which join the Skyway to the at-grade Oakland approach fill; and Existing Bridge Demolition—demolition of the existing 1936 SFOBB East Span structure after the construction and placement of traffic onto the new East Span.

#### SFOBB East Span Replacement Cost Summary (\$ Millions)

Contract	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (09/2007)	3 <sup>rd</sup> Quarter 2007 Forecast	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	524.7	977.1	17.7
Capital Outlay	-	-	-	-	-	-
Skyway	1,293.0	-	1,293.0	1,180.0	1,293.0	-
SAS E2/T1 Foundations	313.5	-	313.5	242.7	313.5	-
SAS Superstructure	1,753.7	-	1,753.7	286.9	1,767.4	13.7
YBI Detour	131.9	202.5	334.4	90.5	334.4	-
YBI Transition Structures	299.3	(23.2)	276.1	-	276.1	-
* YBITS 1				-	214.3	
* YBITS 2				-	58.5	
* YBITS 3 - Landscape				-	3.3	
Oakland Touchdown	283.8	-	283.8	11.4	302.5	18.7
* OTD Submarine Cable				7.4	9.6	
* OTD Westbound				4.0	226.5	
* OTD Eastbound				-	62.0	
* OTD Electrical Systems				-	4.4	
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	3.3	18.3	13.5	18.3	-
East Span Completed Projects	90.3	-	90.3	89.2	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Other Budgeted Capital	35.1	(3.3)	31.8	0.6	7.7	(24.1)
<b>TOTAL</b>	<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,478.3</b>	<b>5,674.7</b>	<b>8.9</b>

## SFOBB East Span Replacement Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	-
YBI Detour*	July 2007	36	June 2010	June 2010	-
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Oakland Touchdown (OTD)	November 2013	12	December 2014	December 2014	-
* OTD Submarine Cable	n/a		January 2008	January 2008	-
* OTD No. 1 (Westbound)	n/a		January 2010	January 2010	-
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	November 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-

\*Contract schedules being further assessed due to changes in SAS schedule.

**Project Status:** Construction is currently ongoing for the Skyway, YBI Detour, SAS Superstructure, SAS E2/T1 Foundations and Stormwater Treatment Measures OTD #1 (Westbound). Contracts in design include the OTD #2 (eastbound), the YBI Transition Structure (YBITS) Contract #1, YBITS Contract #2 and the Existing Bridge Demolition contract. Design of each contract is proceeding per its schedule requirements. The OTD #1 project start date was August 22, 2007. SAS Superstructure construction is ongoing.

**Project Issues:** All projects except Demolition have a Risk Response Team and a Risk Register incorporating quantitative risk analyses. A preliminary risk register has also been developed for Capital Outlay Support (COS) costs, as well as a program-level risk register that captures risks common to all project. The development of a quantitative COS risk analysis is in progress. The Risk Response Teams have focused attention on developing and executing risk response actions for their most significant risks. Many of the actions have been effective, as evidenced by a reduction of risk impacts on the Skyway and E2/T1 contracts from the previous quarter. The effort to develop and execute risk response actions to mitigate the cost and schedule impacts posed by risk issues continues to be a high priority.

**Recent TBPOC Actions:** See the following contract detail pages for specific TBPOC actions on East Span contracts.

## Toll Bridge Seismic Retrofit Program

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project**► **SKYWAY CONTRACT**

**Contract Description:** The Skyway contract constructs two parallel pre-cast concrete approach spans from Oakland to the self-anchored suspension span near Yerba Buena Island.

**Skyway Cost Summary (\$ Millions)**

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - Skyway						
Capital Outlay Support	197.0	-	197.0	170.6	197.0	-
Capital Outlay Construction	1,293.0	-	1,293.0	1,187.3	1,293.0	-
<b>TOTAL</b>	<b>1,490.0</b>	<b>-</b>	<b>1,490.0</b>	<b>1,357.9</b>	<b>1,490.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

**Skyway Schedule Summary**

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
East Span - Skyway	April 2007	8	December 2007	December 2007	-

**Contract Status:** The Skyway contract is currently in construction and is 98% complete as of September 20, 2007. The eastbound and westbound structures are 100% complete with the erection of all segments. The eastbound polyester overlay has been completed. The deck grinding on the westbound is in progress. Other remaining work includes service platforms, electrical work, painting, and other punchlist work. The contractor installed the last two Hinge Pipe Beams at location E on the westbound structure of the Skyway.

**Contract Issues:**

Issue	Mitigating Action
KFM issued 15 NOPCs on behalf of USI for welding issues related to the fabrication of the Steel Orthotropic Box Girders (SOBG).	USI completed the fabrication of the SOBG. All NOPCs filed were heard by the Dispute Review Board. Caltrans is evaluating USI's cost claims.

**Recent TBPOC Actions:** TBPOC approved CCO 104 S1 "Steel Painting" at the August, 2007 meeting.

### Contract Photographs



Skyway - Overlay Operation



Skyway - Overlay Operation 2



Skyway - Painting Bike Path



Skyway - Stairs Leading to the Substation



Skyway - White Painted OBG - Eastbound



Skyway - Installing Hinge Pipe Beam E - Eastbound (1)

## Toll Bridge Seismic Retrofit Program

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project****► SELF-ANCHORED SUSPENSION (SAS) E2/T1 FOUNDATIONS CONTRACT**

**Contract Description:** The Self-Anchored Suspension (SAS) E2/T1 Foundations contract constructs the main tower foundation at T1 and the adjacent east foundation at E2. (See diagram pg. 13)

**SAS E2/T1 Foundations Cost Summary (\$ Millions)**

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	52.5	(11.0)	41.5	24.2	41.5	-
Capital Outlay Construction	313.5	-	313.5	248.1	313.5	-
<b>TOTAL</b>	<b>366.0</b>	<b>(11.0)</b>	<b>355.0</b>	<b>272.3</b>	<b>355.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

**SAS E2/T1 Foundations Schedule Summary**

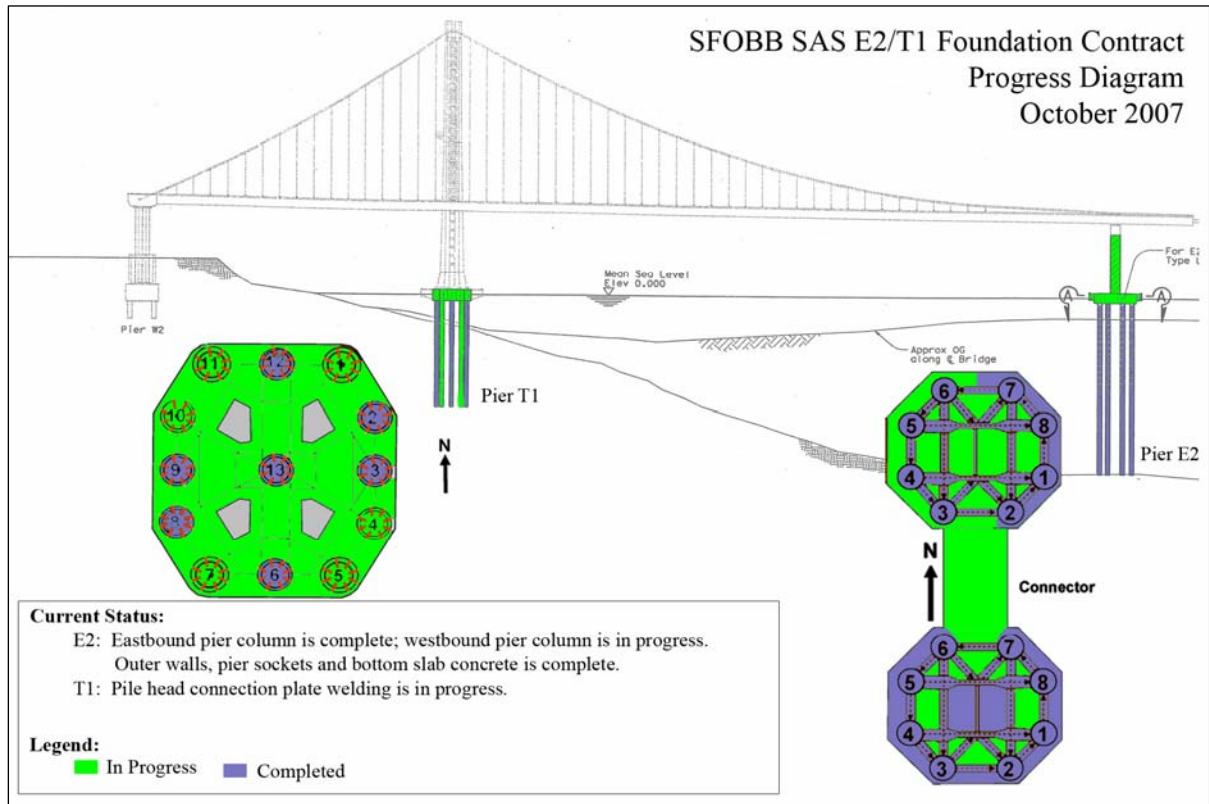
Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
East Span - SAS E2 / T1 Foundations	June 2008	(3)	March 2008	March 2008	-

**Contract Status:** The contract is 89% complete as of September 20, 2007. On the SAS Marine Foundations Contract, all 13 rock sockets that tie the SAS tower foundation (T1) to bedrock have been installed. The T1 bottom slab concrete has been placed. Slot cutting and T1 pile head connection welding is in progress. At the E2 Foundation, all piles are complete. Caltrans and its contractor have completed most of the eastbound E2 foundation and column. The first lift of the column at westbound E2 has been poured. Rebar cage assembly is in progress for the second lift of the E2W column.

Issue	Mitigating Action
The Contractor may potentially claim additional compensation for extra work for producing integrated shop drawings and changes from that process.	The Department is evaluating the issues and may forward the disputes to the DRB for resolution. Pending their findings, the Department may settle this dispute

**Recent TBPOC Actions:** None.

Project Diagram and Photographs



E2-T1 - Eastbound Column at E2



OTD1 - Construction of the Trestle

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ▶ SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE CONTRACT

**Contract Description:** The Self-Anchored Suspension (SAS) Superstructure contract constructs a signature tower span between the Skyway and the Yerba Buena Island transition structure. Work on the SAS bridge has been split between three contracts—the SAS Superstructure (under construction), the SAS E2/T1 Foundation (under construction), and the SAS W2 Foundation (completed).

#### SAS Superstructure Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	214.6	-	214.6	50.8	214.6	-
Capital Outlay Construction	1,753.7	-	1,753.7	301.5	1,767.4	13.7
<b>TOTAL</b>	<b>1,968.3</b>	<b>-</b>	<b>1,968.3</b>	<b>352.3</b>	<b>1,982.0</b>	<b>13.7</b>

Note: Details may not sum to totals due to rounding effects.

#### SAS Superstructure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
East Span - SAS Superstructure	March 2012	12	March 2013	March 2013	-

**Contract Status:** The contract is 21% complete as of September 20, 2007. The contractor, American Bridge Fluor Enterprises, Inc., a Joint Venture (ABF), and their subcontractors continue to prepare and submit requests for information and submittals for Caltrans review and response, including schedule updates. The schedule update for August 2007 was submitted and accepted. ABF has completed the design of the crane barge to be used to lift the heavy tower and deck sections. Three modules of the barge have been fabricated in Oregon. Crane fabrication has started in China. Civil construction work has started at the W2 foundation with falsework for the pier table. The fabricators for the temporary towers and trusses have been selected by the contractor and fabrication is underway.

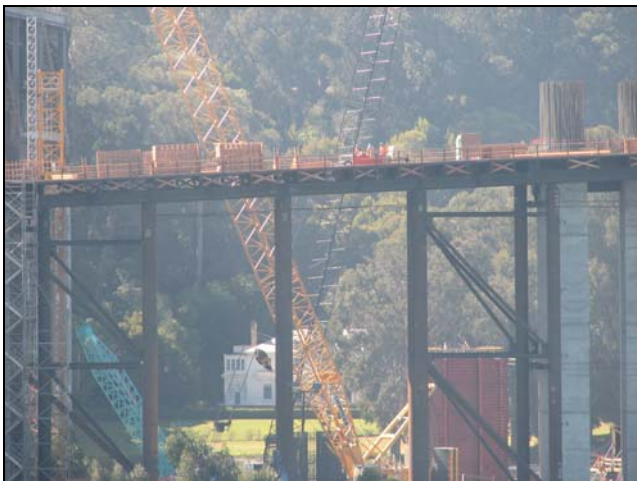
Caltrans and its contractor are working on final trial mock-ups of the steel tower. Two of the three tower mock-ups will be completed by the end of the year. Fabrication at the deck boxes should start by the end of October 2007. Construction of the mass concrete thermal control mock-up pour has been successfully completed. The Hinge “K” Pipe Beam fabrication is in progress. In addition, the high strength pre-stressing rods for the Hinge “K” Pipe Beam have been manufactured and delivered. Casting of the W2 saddle has started in Japan. A B4 Cable Band, which will be used for the friction test, was cast in the United Kingdom. The wire for the cable friction test has been manufactured and fabrication of the strands has started. The cable band friction test will be conducted at Pier 7.

**Contract Issues:**

Issue	Mitigating Action
Caltrans has identified the need for added resources to monitor work at the ZPMC steel fabrication facilities in China.	Caltrans has set up facilities and organized resources that will ensure an effective Owner's presence in the steel fabrication shops.
Potential for cost increases during construction due to steel plate conflicts. Applies to structural steel, including the towers and box girders.	Establish Working Drawing Campus with Contractor to facilitate discussion about conflicts and meet regularly. Caltrans has constructed models and identified conflicts, for which CCOs are to be prepared.

**Recent TBPOC Actions:** None

**Contract Photographs**



SAS - W2 Bent Cap



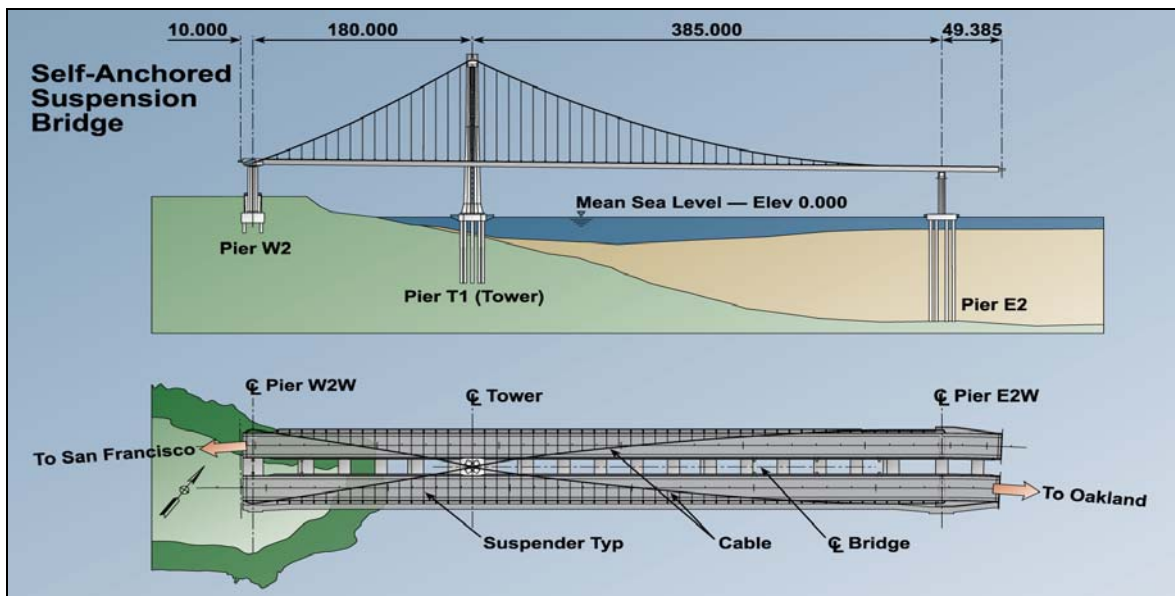
SAS - Top of W2R Column Reinforcement



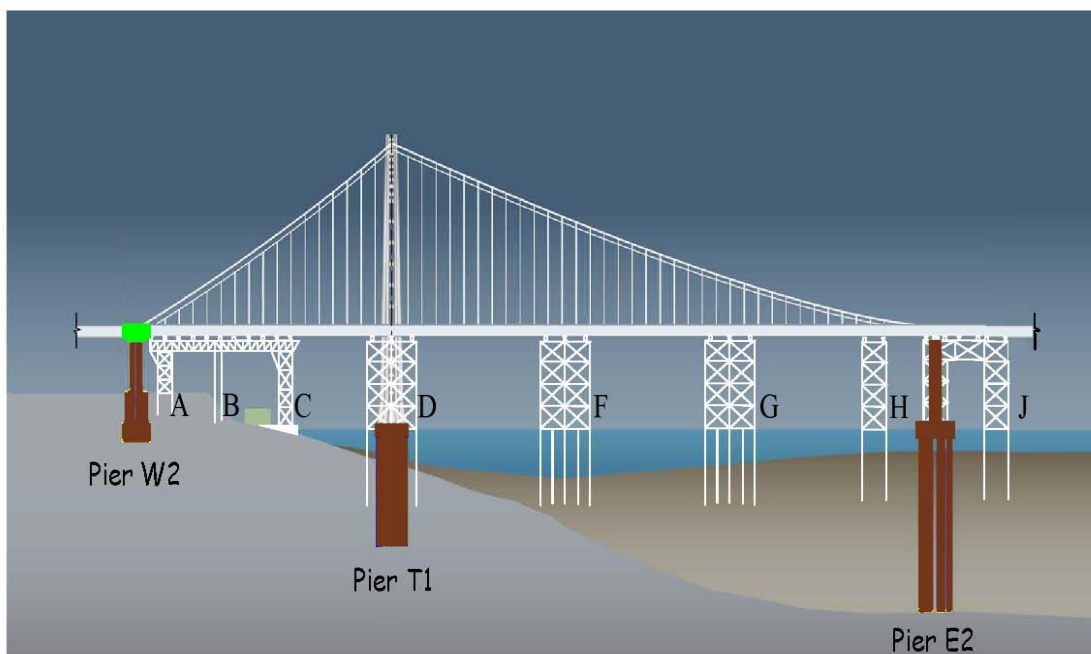
SAS - Mass Concrete Mock-up with Cooling System



SAS - W2 Bent Cap Forms



### SAS Superstructure Construction Progress



- Field work to be completed
- Field work in progress
- Completed field work
- Part of W2 and E2/T1 contract

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► YERBA BUENA ISLAND (YBI)

##### • YBI DETOUR CONTRACT

**Contract Description:** The YBI Detour constructs a temporary detour from the YBI tunnel to the existing east span of the Bay Bridge. This detour maintains traffic on the existing bridge while the YBI Transition Structure Contract completes the tie-in from the SAS to the existing tunnel.

#### YBI Detour Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
YBI Detour						
Capital Outlay Support	29.5	10.0	39.5	27.4	39.5	-
Capital Outlay Construction	131.9	202.5	334.4	90.5	334.4	-
<b>TOTAL</b>	<b>161.4</b>	<b>212.5</b>	<b>373.9</b>	<b>117.9</b>	<b>373.9</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

#### YBI Detour Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
YBI Detour *	July 2007	36	Jun 2010	June 2010	-

\* Contract schedule under assessment. See Contract Issues on the following page.

**Contract Status:** The YBI Detour Contract was awarded in early 2004 to construct a temporary detour structure providing for, at that time, a new bridge opening in 2006. Due to the re-advertisement of the SAS superstructure contract in 2005, the bridge opening was rescheduled to 2013, which necessitated a temporary suspension of the YBI Detour contract and design changes. The required suspension of work and design revisions has resulted in increased cost for the YBI Detour contract.

In 2006, the TBPOC approved a plan to pace work on the project, to have Caltrans assume design responsibility over the east and west tie-ins, and to make changes to the detour structures to allow it to stand in place alone for a longer duration than originally intended. The YBI Detour contract is now forecast to be completed in 2010 consistent with the planned westbound opening date of 2012 for the new bridge.

In addition to the revised contract completion date, the TBPOC approved on February 15, 2007 to advance foundation and retrofit work from the Yerba Buena Island Transition Structures (YBITS) contract to the YBI Detour contract. Advancing the work will reduce overall project schedule risk by taking work off the critical path for the East Span project while making more effective use of the extended YBI Detour contract duration, and will enable potential acceleration of the SAS construction pending negotiation with American Bridge.

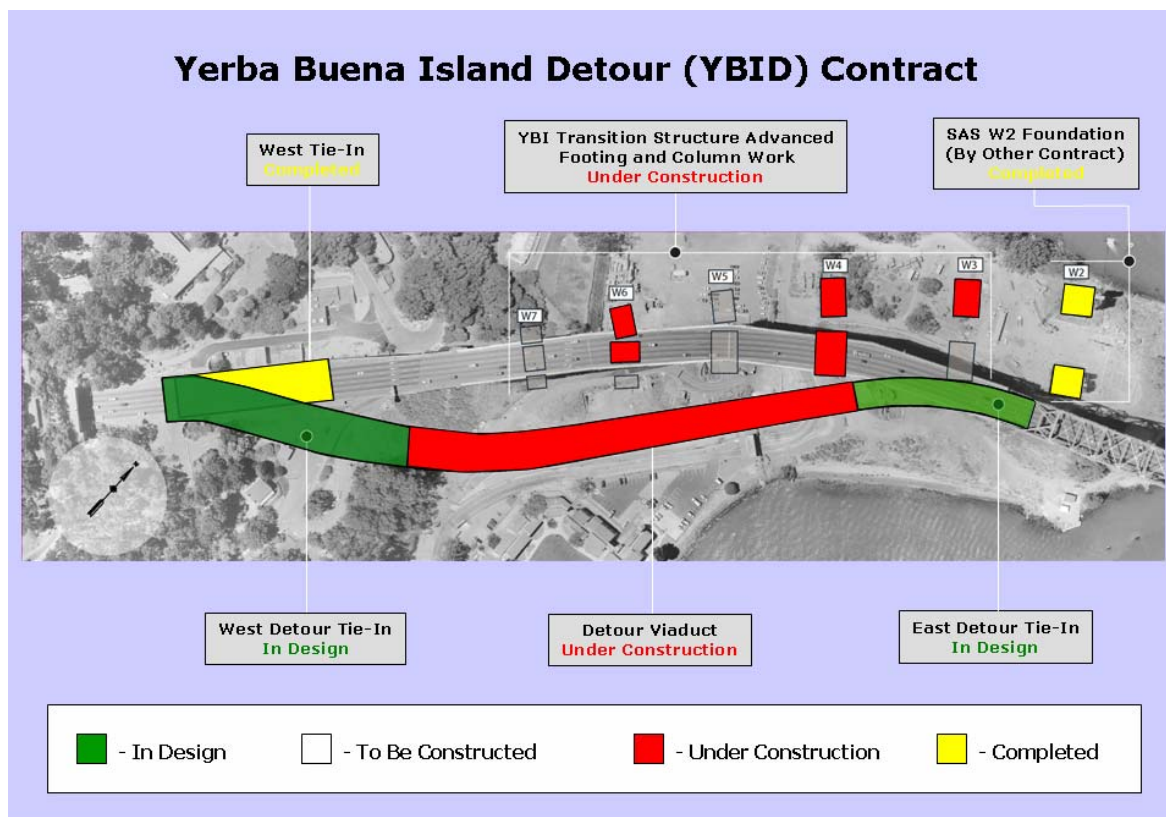
Prior to the suspension, foundations for the temporary detour were nearly completed. Fabrication of the temporary viaduct in Korea is progressing. Steel fabrication of the Viaduct continues at Dongkuk S&C in Pohang, Korea. The first shipment of the Viaduct has arrived at the Port of San Francisco. Rebar fabrication for bent 50 is in progress and the fabricator for the ETI has been selected by the contractor.

Caltrans and its contractor successfully rolled into place the precast replacement upper roadway deck section near the YBI tunnel as part of the West Tie-in Phase I. The work was completed 11 hours early during the full Bay Bridge closure over the Labor Day Weekend. Traffic impacts during the bridge closure were manageable and work is now continuing to demobilize the roll-in operation and to complete the detour viaduct. Caltrans and its contractor are now focusing on completing the detour viaduct to be constructed just south of the existing bridge. In addition, as part of the YBI Advanced work, work is continuing on the foundation of W4 L&R and W6 L&R.

**Recent TBPOC Actions:** In June 2007, the TBPOC approved implementation of the Department’s plan of action to complete the YBI Detour.

**Contract Issues:**

Issue	Mitigating Action
Caltrans will need to negotiate a number of contract change orders to implement the aforementioned changes to the contract, including the Labor Day Deck Roll-in, the advancement of YBI Transition Structure Work, design enhancements to the detour structure, and other work.	The TBPOC has approved a plan of action to implement the changes.



### Contract Photographs



Seven Girders Removed 11am 9/01/07



Lifting of Two Girders 2pm 9/1/07



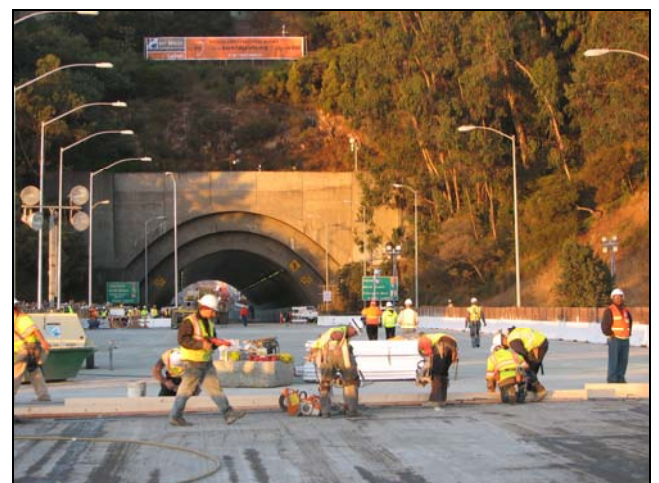
Loading Demolished Girder on the Truck 3pm 9/1/07



Lifting a North Edge Girder 5:30pm 9/2/07



Demo of the Skid Beam on the Ramp 9/3/07 Early Morning



Closure Pour on the East Side 9/3/07 Early Morning

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► YERBA BUENA ISLAND (YBI)

##### ● YBI TRANSITION STRUCTURE CONTRACTS

**Contract Description:** The YBI Transition Structure contracts will construct the mainline YBI transition structures (YBITS) that will connect the SAS portion of the new bridge to the newly rolled in WTI Phase I structure. YBITS #1 will construct the mainline approach structure from the new bridge to the WTI Phase I structure. YBITS #2 will demolish the YBI Detour temporary structure, complete the new eastbound on-ramp, reconstruct local affected facilities at YBI, and complete the bike path from the SAS to YBI (except for a section of the path that conflicts with existing column E1). That section of the path is contemplated to be completed in the demolition contract. A YBI Landscaping Contract will restore slopes and vegetation in areas affected by YBI construction.

#### YBI Transition Structure Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	78.7	-	78.7	15.9	78.7	-
Capital Outlay Construction						
* YBITS Contract #1					214.3	
* YBITS Contract #2					58.5	
* YBITS Contract #3 -					3.3	
Total Capital Outlay Construction	299.3	(23.2)	276.1	-	276.1	-
<b>TOTAL</b>	<b>378.0</b>	<b>(23.2)</b>	<b>354.8</b>	<b>15.9</b>	<b>354.8</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

#### YBI Transition Structure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
YBI Transition Structure	November 2013	12	November 2014	November 2014	-

**Contract Status:** In February 2007, the TBPOC approved a plan to accelerate portions of the YBITS work by adding it to the YBI Detour Contract. The new forecast for the YBITS contract excluding the advance work is \$276.1 million which is a net reduction of \$23.2 million from the AB 144/SB 66 budget. Caltrans is preparing the remaining portion of the YBITS contract for advertisement in 2008. See the YBI Detour Contract Status on page 18 for more information.

**Contract Issues:** None.

**Recent TBPOC Actions:** In February 2007, the TBPOC approved a plan to accelerate YBITS work on the YBI Detour contract.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ▶ OAKLAND TOUCHDOWN

##### • OAKLAND TOUCHDOWN CONTRACTS

**Contract Descriptions:** The Oakland Touchdown #1 Contract includes construction of all marine foundations, and land foundations (except for the eastbound abutment), westbound bridge section, and one frame of the eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This contract also constructs the electrical substation and the eastbound detour roadway. Traffic will not be placed on the detour until later during OTD #2.

The Oakland Touchdown #2 Contract includes construction of the remaining eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This work would occur once the westbound traffic is shifted onto the new SAS.

The Submarine Cable Relocation Contract replaced the existing submarine electrical cable from Oakland to Treasure Island and was completed ahead of the OTD Contract #1 which avoided potential construction conflicts.

#### Oakland Touchdown Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	74.4	-	74.4	26.8	92.1	17.7
Capital Outlay Construction						
OTD Submarine Cable	-	-	-	7.8	9.6	-
Oakland Touchdown #1	-	-	-	10.9	226.5	-
Oakland Touchdown #2	-	-	-	-	62.0	-
Oakland Touchdown Electrical	-	-	-	-	4.4	-
Total Capital Outlay Construction	283.8	-	283.8	18.7	302.5	18.7
<b>TOTAL</b>	<b>358.2</b>	<b>-</b>	<b>358.2</b>	<b>45.5</b>	<b>394.6</b>	<b>36.4</b>

*Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.*

#### Oakland Touchdown Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
OTD Submarine Cable	-	-	January 2008	January 2008	-
Oakland Touchdown #1	-	-	January 2010	January 2010	-
Oakland Touchdown #2	-	-	November 2014	November 2014	-

## Contract Status

**Oakland Touchdown Contract #1:** The contract was awarded to MCM construction on July 17, 2007. The first working day of the contract was August 22, 2007. Based on an A & B contract requirement, with a 650 plus 160, or 810 days contract duration, the contract completion date is November 8, 2009. The baseline CPM schedule was submitted electronically on Friday, September 7, 2007 and is currently being reviewed by Caltrans for conformance to specifications. The Department continued to review and process various Contractors' submittals, including the Stormwater Pollution Protection Plan (SWPPP), which has been conditionally approved by the Regional Quality Control Board (RQCB). This conditional approval has authorized the Contractor to start their field work operations. The Contractor has already driven some test piles and has delivered soldier and sheet piles to the jobsite. The trestle design has been approved and pile driving work has started for the trestle construction.

**Oakland Touchdown Contract #2:** Design work for the structures portion of OTD Contract No. 2 is substantially complete. The contract will be advertised in 2010 so that construction can be completed in time for opening the SAS in the eastbound direction. Determination of contract scope for the Oakland Touchdown Electrical Systems is underway. Caltrans is also considering the option of incorporating this work into the Oakland Touchdown #2 contract.

**Submarine Cable Relocation Contract:** All field work has been completed and the contractor has demobilized. Contract closeout is in progress.

**Contract Issues:** On the Submarine Cable Relocation Contract, there is one outstanding NOPC that was filed by the contractor in relation to "Excess Debris" while laying the cables.

**Recent TBPOC Actions:** None.



*OTD #1 Trestle Construction*

## Toll Bridge Seismic Retrofit Program

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project****▶ OTHER MAJOR CONTRACTS**

**Contract Description:** Other Major Contracts include the Stormwater Treatment Measures contract, which will implement best practices for storm water runoff treatment at the SFOBB toll plaza and the Existing Bridge Demolition contract, which will include the complete removal of the existing 1936 east span following the opening of the new bridge.

**Other Major Contracts Cost Summary (\$ Millions)**

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	85.7	2.0	87.7	7.5	87.7	-
Capital Outlay Construction						-
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	3.3	18.3	13.5	18.3	-
Total Capital Outlay Construction	254.2	3.3	257.5	13.5	240.3	(17.2)
<b>TOTAL</b>	<b>339.9</b>	<b>5.3</b>	<b>345.2</b>	<b>21.0</b>	<b>328.0</b>	<b>(17.2)</b>

*Note: Details may not sum to totals due to rounding effects.*

**Other Major Contracts Schedule Summary**

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)	% Design Comp.
Existing Bridge Demolition	September 2014	12	September 2015	September 2015	-	10
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-	N/A

**Contract Status:**

**Stormwater Treatment Measures:** The contract is 92% complete as of September 2007. Current work includes installation of drainage systems, irrigation lines, metal beam guardrails, pump station electrical work, restoring highway lighting and construction of the Bioretention basins.

**Bridge Demolition:** Design work has been temporarily suspended to assign engineering resources to higher priority tasks, and will resume at a later time. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension. The \$17.2 million decrease in construction costs for the Existing Bridge Demolition contract is due to a re-evaluation of cost escalation rates for the contract.

Issue	Mitigating Action
<p>The Contractor has encountered problems with unsuitable materials and the need to upgrade electrical equipment to meet the pumping requirements of the contract.</p>	<p>The Department has sought supplemental contract funds to cover additional project risks, including the delays from the Maze Collapse, the unsuitable materials, and the upgrade of the electrical systems.</p>

**Recent TBPOC Actions:** In June 2007, the TBPOC approved a supplemental fund request by the Department to increase the contract budget to \$18.3 million from available “Other Budgeted Capital” funds.



A7 Line - AC Paving



Area 5 – Forebay Detention Basin



Area 5, Substation 6, - Tesco Control Systems

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OTHER COMPLETED CONTRACTS AND RELATED WORK

**Summary Description:** Substantial work has already been performed on the SFOBB East Span Replacement project to facilitate construction of the mainline construction contracts.

#### Other Contracts and Related Work Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	227.0	(1.0)	226.0	209.0	226.0	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Capital Outlay Construction						-
SAS W2 Foundations	26.4	-	26.4	25.8	26.4	-
YBI/SAS Archaeology	1.1	-	1.1	1.1	1.1	-
YBI - USCG Road Relocation	3.0	-	3.0	2.8	3.0	-
YBI - Substation and Viaduct	11.6	-	11.6	11.3	11.6	-
Oakland Geofill	8.2	-	8.2	8.2	8.2	-
Pile Installation Demonstration Project	9.2	-	9.2	9.2	9.2	-
Existing East Span Retrofit	30.8	-	30.8	30.8	30.8	-
Total Capital Outlay Construction Completed	90.3	-	90.3	89.2	90.3	-
<b>TOTAL</b>	<b>389.7</b>	<b>(1.0)</b>	<b>388.7</b>	<b>337.0</b>	<b>388.7</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

#### Other Contracts and Related Work Schedule Summary

Project	Actual Project Completion Date
Existing East Span Retrofit	March 1998
Interim Retrofit	July 2000
Pile Installation Demolition Project	December 2000
YBI / SAS Archaeology	January 2003
Oakland Geofill	April 2003
YBI - USCG Road Relocation	June 2004
SAS W2 Foundations	October 2004
YBI Substation and Viaduct	May 2005

**Summary Status:** Construction has been completed on the above-listed contracts. Caltrans continues to work with various environmental agencies to conduct compliance inspections and monitor and mitigate any environmental impacts from the project.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

**San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project**

**Project Description:** The SFOBB West Approach Replacement Project will replace the entire west approach structure from 5<sup>th</sup> Street to the west anchorage of the existing west spans of the SFOBB while maintaining existing traffic lanes for the weekday commute.

**SFOBB West Approach Replacement Cost Summary (\$ Millions)**

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
West Approach						
Capital Outlay Support	120.0	-	120.0	98.0	120.0	-
Capital Outlay Construction	309.0	-	309.0	257.3	309.0	-
<b>TOTAL</b>	<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>355.3</b>	<b>429.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

**SFOBB West Approach Replacement Schedule Summary**

Project	AB 144/SB 66 Project Completion Baseline (07/2006)	Approved Changes (Months)	Project Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
West Approach	August 2009	-	August 2009	January 2009	(7)
Open to Traffic date: Mainline			April 2008		

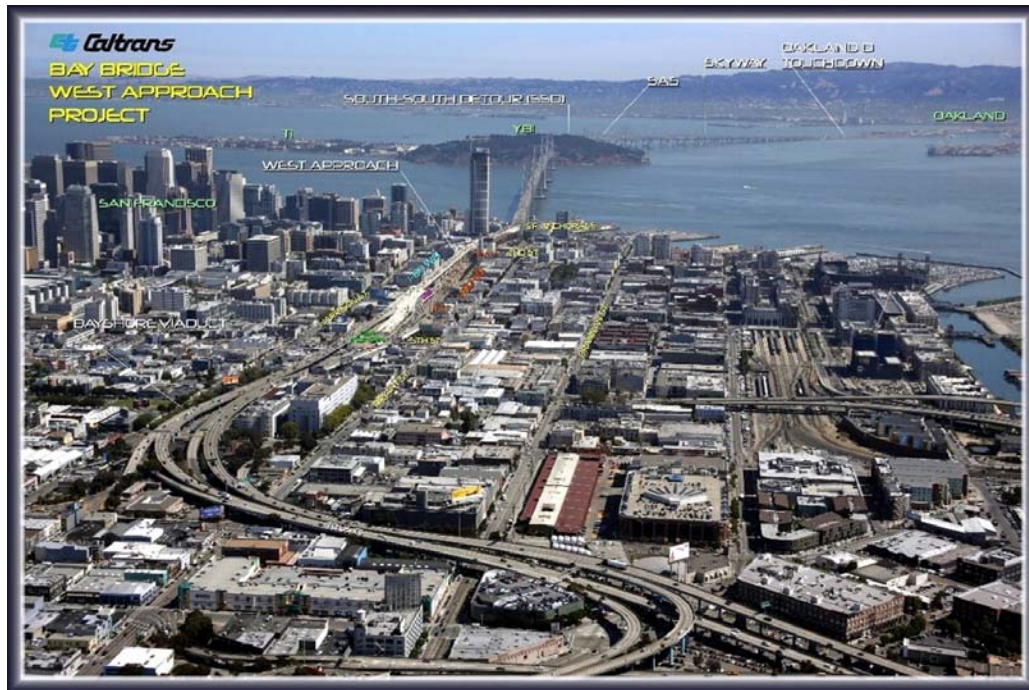
**Project Status:** Construction is 83% complete as of August 20, 2007. Seismic retrofit construction is continuing throughout the project. The rebuilding of the new EB 80 structure is in progress with column installation that will continue throughout the summer with falsework installation to follow. An extensive public outreach effort continues and will be necessary until the spring of 2008 for the construction of the EB 80 structure adjacent to the Stillman Street area. Frame 7U temporary supports and falsework will continue and soffit pours are anticipated in mid September 2007. Frame 6U falsework has commenced during this report period. Materials are being procured and fabricated for the Frame 8L isolation casing.

**Project Issues:**

Issue	Mitigating Action
Modification of the isolation casings for Frame 8L is being redesigned to address constructability issues with the jacking platform.	The Department is proceeding with the procurement and fabrication of materials for the isolation casings of Frame 8L in order to mitigate any impact to the project schedule.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.



West Approach



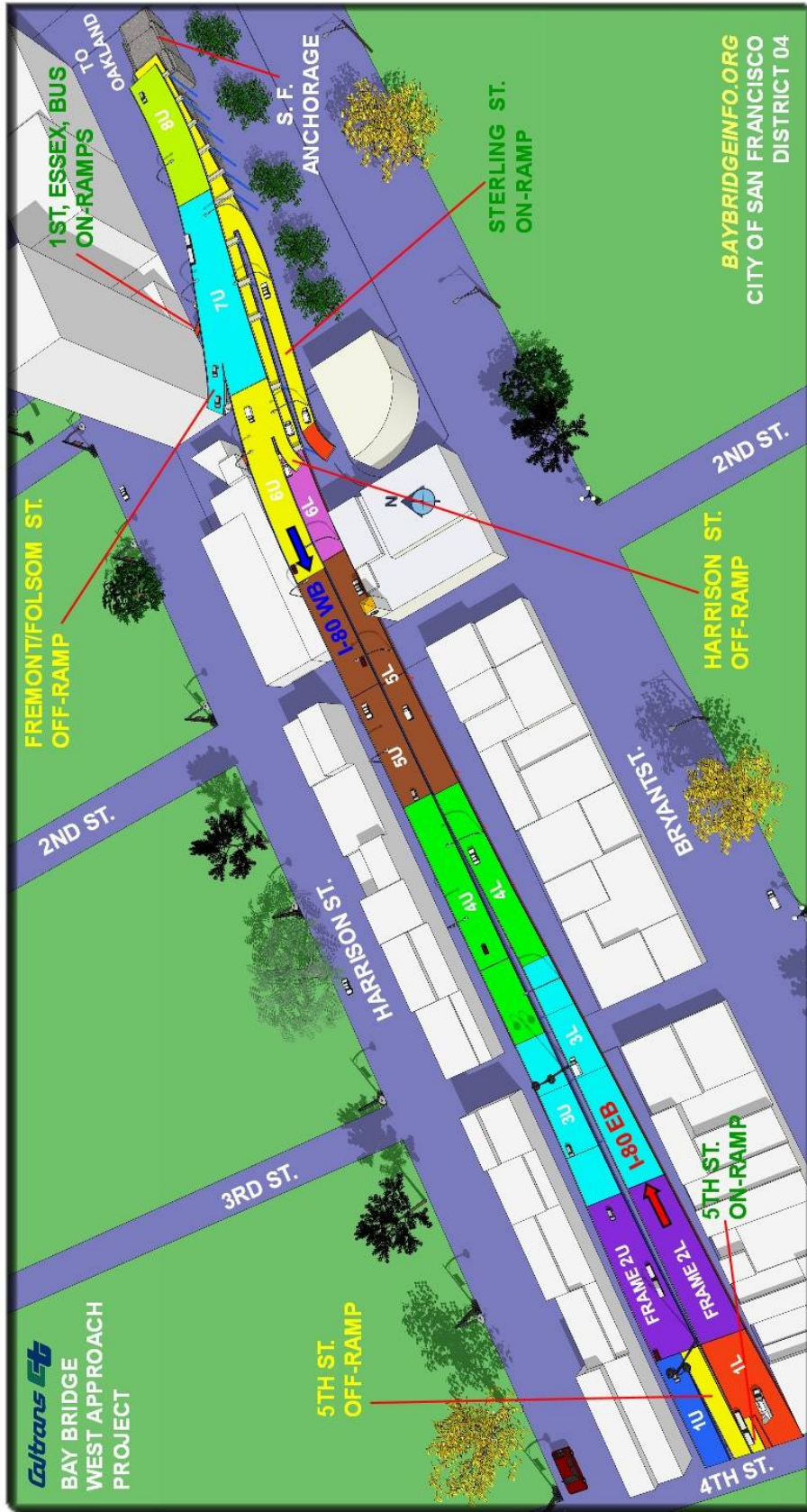
West Approach



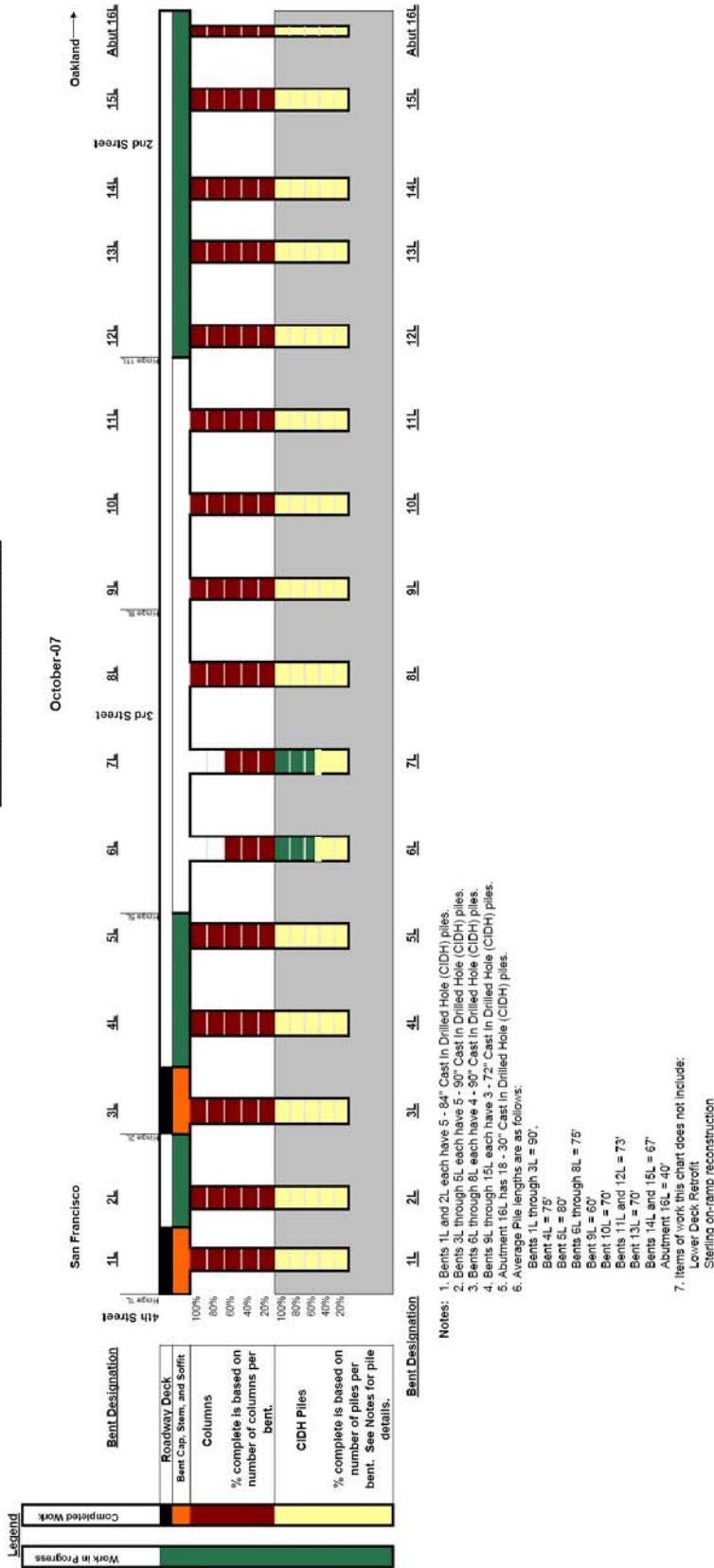
West Approach – I-80 Westbound



West Approach Interim I-80 Eastbound



**SFOBB West Approach Retrofit Progress Diagram**  
**Mainline Eastbound 80 Rebuilding**



## Toll Bridge Seismic Retrofit Program

### **Richmond-San Rafael Bridge (RSRB) Seismic Retrofit Project**

**Project Description:** The Richmond-San Rafael (RSR) Bridge Seismic Retrofit Project strengthened the existing bridge to withstand the effects of a large seismic event. As part of the retrofit work, Caltrans performed work to strengthen the bridge foundations, replace the existing west trestle and the main channel fenders and complete the joint rehabilitation of the bridge deck. (The RM1 work is reported in the RM1 section of the report.)

#### **RSRB Seismic Retrofit Cost Summary (\$ Millions)**

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSRB Seismic Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.6	127.0	-
Capital Outlay Construction & Right-of-Way	780.0	(82.0)	698.0	666.6	698.0	-
<b>TOTAL</b>	<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>793.2</b>	<b>825.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

\* The seismic retrofit contract included work to rehabilitate the bridge deck joints. Although the deck joint work was funded from RM1 toll funds, the work is also eligible for Toll Bridge Seismic Retrofit Program funding. In July 2005, BATA rescinded \$16.9 million in RM1 funds for the deck joint work to make additional RM1 funds available for the New Benicia-Martinez Bridge Project. An equivalent amount of seismic funds will be used on the deck joint work, which is included in the budget above.

#### **RSRB Seismic Retrofit Schedule Summary**

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
RSRB Seismic Retrofit	August 2005	-	August 2005	October 2005	2
RSRB Public Access Lot	NA	-	September 2007	August 2007	-1

**Project Status:** The retrofit construction contract was completed and accepted on October 28, 2005. Project savings in the amount of \$89 million was transferred to the program contingency in October 2006.

Caltrans is concluding negotiations with regulatory agencies on pile driving issues and impacts to fisheries. A settlement is pending.

Construction work on the Public Access Project was completed in August 2007 and the lot was opened to public use.

**Recent TBPOC Actions:** None.



## Toll Bridge Seismic Retrofit Program

### Other Completed Seismic Retrofit Projects

**Summary Description:** Caltrans has already completed the seismic retrofits of the West Spans of the SFOBB, the existing 1958 Carquinez Bridge, the existing Benicia-Martinez Bridge, the San Mateo-Hayward Bridge, and two former toll bridges in Southern California.

### Other Completed Seismic Retrofit Projects Cost Summary (\$ Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	301.1	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.2	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit Project	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit Project	103.5	-	103.5	102.6	103.5	-
<b>TOTAL</b>	<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.5</b>	<b>925.4</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined.*

### Other Completed Seismic Retrofit Projects Schedule Summary

Project	Actual Project Completion Date
Vincent Thomas Bridge Retrofit	May 2000
San Mateo-Hayward Bridge Retrofit	June 2000
Carquinez Bridge Retrofit	January 2002
San Diego-Coronado Bridge Retrofit	June 2002
Benicia-Martinez Bridge Retrofit	August 2002
SFOBB West Span Seismic Retrofit	June 2004

**Summary Status:** Construction has been completed on the above-listed projects. The Estimate at Completion amounts shown above includes allowances for minor project closeout costs.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

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### *Other Toll Bridges*

#### **Dumbarton and Antioch Bridges**

State Route 84 crosses the southern region of San Francisco Bay between the cities of Newark to the east and East Palo Alto to the west. The Route consists of three lanes in each direction and an eight-foot bicycle/pedestrian lane. The AADT of the Route is near 70,000. The bridge is over 2 km in length and is positioned in an approximately normal geometry between two seismic faults which the USGS has reported to pose most of the significant seismic threat to the San Francisco Bay Area: the San Andreas Fault, some 15 km to the west of the bridge; and the Hayward Fault, some 13 km to the east of the bridge.

State Route 160 crosses the San Joaquin River between the city of Antioch and Sherman Island (leading to Rio Vista) via the Antioch Bridge. The Bridge carries a single lane of traffic in each direction. The AADT for the Route is slightly over 10,000 vehicles per day. The bridge is threatened by the Bird's Landing Seismic Zone, Cost Range/Sierra Nevada Boundary Zone, and the San Andreas Fault.

#### **Cost and Schedule**

A cost estimate, schedule and an initial risk analysis have been developed to complete a comprehensive seismic analysis for each bridge. In June 2006, BATA approved \$17.8 million in funding to proceed with the comprehensive seismic analysis of the bridges. The current forecast of expenditures is within the \$17.8 million budgeted.

In September 2006, BATA entered into contract with a geotechnical and geophysical consultant to evaluate the bridges. In April 2007, the field-drilling program was completed and the majority of the laboratory testing was completed by June 2007. Minor laboratory testing to fill in data gaps may be required in the future. Current progress indicates that the Caltrans' designers will complete, as scheduled, the development of retrofit strategies for both bridges by early 2009.

#### **Current Progress**

These bridges are currently being evaluated for seismic safety and post-earthquake performance. Work is underway in three specific areas: seismology, geology and geotechnical engineering, and bridge structural engineering.

Work in the area of seismology is defining the seismic ground motions used for design. Recommended Safety Evaluation (SE) level motions have been developed for both bridges and are currently under review by an external and independent Seismic Safety Peer Review Panel (SSPRP). SE motions represent future large earthquakes. Work in this area to be completed in the near future includes finalizing the SE motions, developing lower level Functional Evaluation (FE) motions, and multiple earthquake time-histories that can be used in the checking phase of the projects. Draft reports have been released. The SE motions have been reviewed by the Toll Bridge Seismic Safety Peer Review Panel on a couple of occasions.

Work in the area of geology and geotechnical engineering includes field drilling and studying of soil samples to identify soil types, locations, and engineering properties. This work supports work in defining how the soil at the bridge sites move during earthquakes and how rigidly the bridge's foundations are held in the soil. The drilling operations are complete at both bridge sites; information is being shared with the seismologic team and the bridge structure team. Draft reports have been released.

Work in the area of bridge structural engineering is continues for both bridges. The structures team to date has been collecting and evaluating structural information on the bridges, reducing that information for use in computer models of the bridges, and initiating early computational runs of the models. Geological, geotechnical, and seismological information from the work areas mentioned previously is being incorporated into the bridge evaluations. The design team is currently analyzing the design of the existing structures. Caltrans is also working with the Peer Review Committee to obtain approval of the proposed design.



## PROJECT / CONTRACT REPORTS

### Regional Measure 1 Program

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#### New Benicia-Martinez Bridge Project Summary

- New Benicia-Martinez Bridge Contract
- Other Contracts and Related Project Activities

#### New Carquinez Bridge Project

#### Richmond-San Rafael Bridge Deck Overlay Project

#### Interstate 880 / State Route 92 Interchange Reconstruction

#### Other Completed Regional Measure 1 Projects

- San Mateo–Hayward Bridge Widening Project
- Richmond Parkway Project
- Bayfront Expressway Widening Project
- Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project

## Regional Measure 1 Program

### New Benicia-Martinez Bridge Project Summary

**Project Description:** The new Benicia-Martinez Bridge project has constructed a new parallel bridge just east of the existing bridge. The project includes reconstructed interchanges to the north and south of the bridges and a new toll plaza and administration building in Martinez.

### New Benicia-Martinez Bridge Project Cost Summary (\$ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	157.1	36.5	193.6	175.4	189.1	(4.5)
Right-of-Way and Others	20.4	(0.1)	20.3	12.3	20.3	-
Capital Outlay						-
New Bridge	672.0	100.9	772.9	755.4	772.9	-
I-680/I-780 Interchange Replacement	76.3	22.5	98.8	96.8	98.8	-
I-680/Marina Vista Interchange Reconstruction	51.5	8.1	59.6	56.1	59.6	-
New Toll Plaza	24.3	2.0	26.3	23.0	26.3	-
Existing Bridge & Interchange Modifications	17.2	43.8	61.0	-	61.0	-
Other	20.3	(1.3)	19.0	15.3	19.0	-
Project Reserve	20.8	1.7	22.5	-	27.0	4.5
<b>TOTAL</b>	<b>1,059.9</b>	<b>214.1</b>	<b>1,274.0</b>	<b>1,134.3</b>	<b>1,274.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

\* The budget and estimate at completion includes approximately \$33 million in non-toll bridge funds (Proposition 192 and SHOPP).

### New Benicia-Martinez Bridge Project Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	May 2007	May 2007	-
New Benicia-Martinez Bridge	December 2007	-	October 2007	October 2007	-
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	December 2007	-
Open to Traffic	December 2007	-	August 2007	August 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

## Contract Status

**New Benicia-Martinez Bridge:** The New Benicia-Martinez Bridge was opened to traffic on August 25, 2007. The new bridge carries five lanes of northbound Interstate 680 traffic (two additional lanes) and features a new expanded toll plaza with the Bay Area's first Open-Road Tolling (ORT) FasTrak Express Lanes. With the ORT express lanes, vehicles paying their toll via FasTrak can pay electronically at highway speeds. Remaining work includes punchlist and final electrical items on the New Bridge and I-680/I-780 Interchange contracts which are expected to be completed by the end of the year.

**Toll Plaza and Administration Building:** The contract is 100% complete based on contractor payment. The Contractor has completed all work on the Operations Building, Toll Plaza and Courtyard. The Plant Establishment Period ended on May 14, 2007. The contract was accepted on May 18, 2007 and the Proposed Final Estimate (PFE) has been issued. The Contractor has submitted their response to the PFE, which is currently being reviewed by Caltrans. A number of claims that have been filed by the Contractor remain to be resolved.

**I-680/I-780 Interchange:** The contract is approximately 99% complete based on the current revised schedule. To-date, all of the bridge structures are substantially complete. Final electrical work for the new Benicia-Martinez Bridge and the interchange is expected to be complete by December 2007.

**Existing Bridge & Interchange Modification Contract:** On October 31, 2007, Caltrans opened bids on a contract to modify the existing Benicia-Martinez Bridge to southbound only traffic. The apparent low bid was \$19.4 million less than the engineer's estimate. The contract is expected to take approximately two years.

**Recent TBPOC Actions:** None.

### Project Photographs



*Congressman Miller Crossing the New Bridge and Entering Toll Plaza*



*The First Convoy of Cars Inaugurates the New Span*



*The New Toll Plaza*



*Under the New Toll Plaza*



*The New Bridge Looking North*



*The New Deck Looking South*

## Regional Measure 1 Program

### New Carquinez Bridge Project

**Project Description:** The new Carquinez Bridge project involves constructing a new suspension bridge west of the existing bridges with four westbound lanes and a bicycle/pedestrian lane and demolishing the existing 1927 bridge.

### New Carquinez Bridge Cost Summary (\$ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	124.4	(0.2)	124.2	121.2	122.4	(1.8)
Capital Outlay Construction						-
Replacement Bridge	253.3	4.0	257.3	255.9	257.3	-
South Interchange	73.9	-	73.9	71.9	73.9	-
Existing 1927 Bridge	35.2	-	35.2	29.7	35.2	-
Other	29.3	(0.8)	28.5	25.4	28.5	-
Project Reserve	12.1	(3.0)	9.1	-	0.9	(8.2)
<b>TOTAL</b>	<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>504.1</b>	<b>518.2</b>	<b>(10.0)</b>

Note: Details may not sum to totals due to rounding effects.

### New Carquinez Bridge Schedule Summary

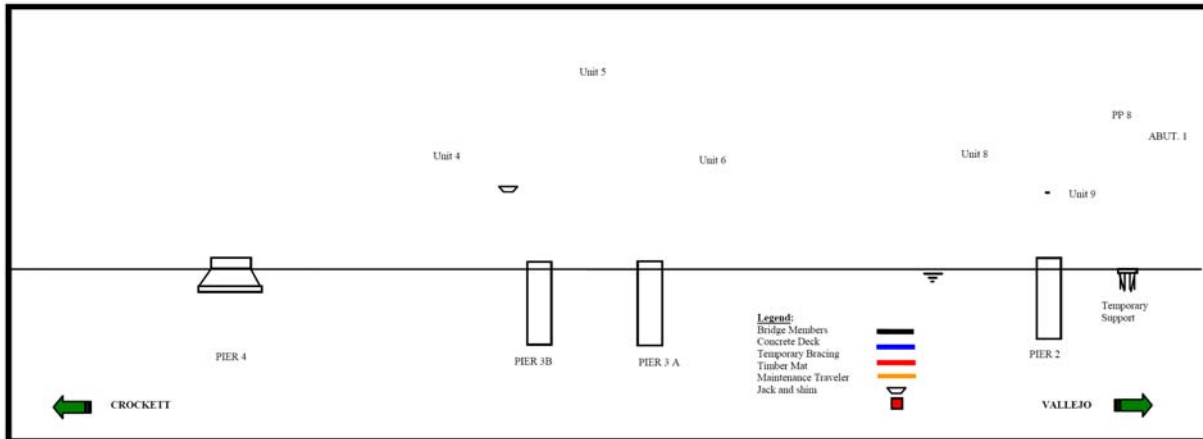
Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
New Carquinez Bridge	December 2003*	-	December 2003*	December 2003*	-
1927 Carquinez Bridge Demolition	September 2007	-	December 2007	December 2007	-
Landscaping	August 2011	-	August 2011	August 2011	-

\* The date shown is for the opening of the bridge to traffic.

**Project Status:** The new replacement bridge and all its approaches have been completed and opened to traffic in November 2003. The demolition contract to remove the 1927 bridge, which was awarded in April 2005, is approximately 90% complete based on schedule. This contract is 93% complete, as the biggest pay item in the contract is the 1958 bridge approach deck replacement, which was completed in November 2005. The removal of the entire 1927 bridge (Main Truss) was completed in September 2007. Other remaining work to be done includes the installation of the Austin Vault Sand Filter, and removal of the base and surfacing in the median south of the approach. Realignment of the local Wanda Street and the construction of the new bike path are on going until November 2007.

**Project Issues:** None

**Project Diagram and Photographs:**



*Looking North at the Demolished Carquinez Bridge*



*Looking South of the Recently Demolished 1927 Carquinez Bridge*



*The East End of the Wanda Street Realignment*



*The Southside of the Carquinez Bridge Interchange*

## Regional Measure 1 Program

### Interstate 880/State Route 92 Interchange Reconstruction Project

**Project Description:** Modify the existing cloverleaf interchange to increase capacity and improve safety and traffic operations.

#### Interstate 880/State Route 92 Interchange Cost Summary (\$ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
I-880/SR-92 Interchange Improvement						
Capital Outlay Support	28.8	26.2	55.0	33.2	55.0	-
Capital Outlay Construction	94.8	60.2	155.0	-	155.0	-
Capital Outlay Right-of-Way	9.9	5.1	15.0	8.3	15.0	-
Project Reserve	0.3	19.7	20.0	-	20.0	-
<b>TOTAL</b>	<b>133.8</b>	<b>111.2</b>	<b>245.0</b>	<b>41.5</b>	<b>245.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects. \$9.6 million in ACTA funds included under Capital Outlay Construction. \$3.0 million included in Capital Outlay Construction and \$1.0 million in Capital Outlay Support for separate landscape contract.

#### Interstate 880/State Route 92 Interchange Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (09/2007)	Contract Complete Schedule Forecast (09/2007)	Schedule Variance (Months)
I-880/SR-92 Interchange Reconstruction	December 2010	-	June 2011	June 2011	-

**Project Status:** On August 28, 2007, Caltrans awarded the Interstate 880/State Route 92 Interchange Reconstruction contract to the joint venture of FCI and Granite Construction for \$138.4 million.

The construction contract was approved on September 28, 2007. Construction is expected to begin in the latter half of October 2007. Using 813 working days and factoring in weather inclement days, construction duration is expected to be less than four years and to be completed by June 2011. Utility relocation work is ongoing. Caltrans is meeting with the utility companies on a weekly basis to closely monitor the progress and ensure the relocation work will be completed on time to avoid Right of Way delay.

**Project Photographs:**



*Interstate 880/State Route 92 Interchange  
BEFORE*



*Interstate 880/State Route 92 Interchange  
AFTER*

## Regional Measure 1 Program

### Other Completed Regional Measure 1 (RM1) Projects

**Summary Description:** Other completed Regional Measure 1 projects are the following: (a) Widen the San Mateo-Hayward Bridge along its low-trestle section and its eastern approach; (b) Widen the Bayfront Expressway (SR 84) from the Dumbarton Bridge to the U.S. 101/Marsh Road interchange; (c) Construct an eastern approach (Richmond Parkway) between the Richmond-San Rafael Bridge and Interstate 80 near Pinole; (d) Modify the U.S. 101/University Avenue interchange; (e) Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation Project; and (f) Richmond-San Rafael Bridge Deck Overlay Project.

### Other Completed RM1 Projects Cost Summary (\$ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	Variance
a	b	c	d = b + c	e	f	g = f - d
San Mateo-Hayward Bridge Widening Project	217.8	-	217.8	208.7	212.4	(5.4)
Bayfront Expressway Widening Project	36.1	-	36.1	33.3	36.0	(0.1)
Richmond Parkway Project	5.9	-	5.9	4.3	5.9	-
U.S. 101/University Interchange	3.8	-	3.8	3.7	3.8	-
RSR Trestle, Fender, and Joint Rehabilitation	102.1	-	102.1	96.3	97.1	(5.0)
RSR Deck Overlay	25.0	-	25.0	19.6	25.0	-
<b>TOTAL</b>	<b>390.7</b>	<b>-</b>	<b>390.7</b>	<b>365.9</b>	<b>380.2</b>	<b>(10.5)</b>

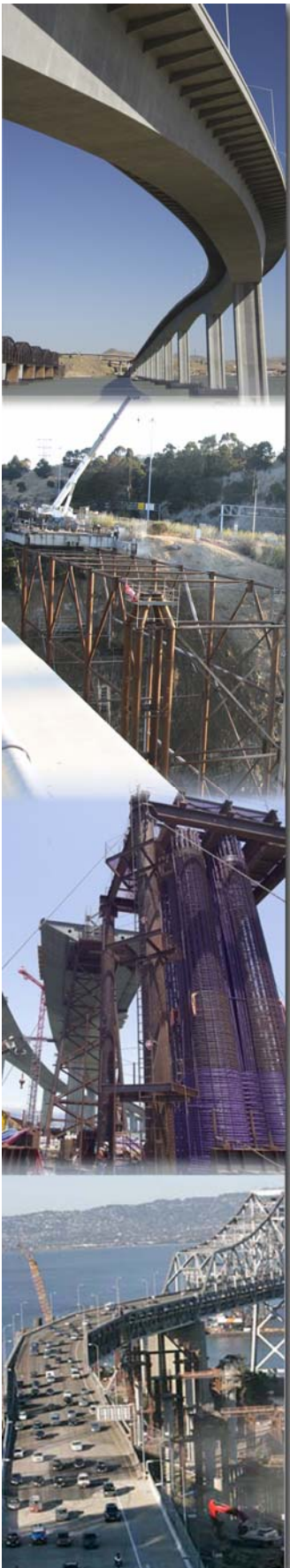
### Schedule Summary

Project	Actual Project Completion Date
Richmond Parkway Project	May 2001
San Mateo-Hayward Bridge Widening Project	February 2003
Bayfront Expressway Widening Project	January 2004
U.S. 101/University Interchange	April 2004
Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation	August 2005
RSR Deck Overlay	December 2006

**Project Status:** Construction has been completed on the above listed contracts.

**Project Issues:** None.

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## APPENDICES

- A** Toll Bridge Seismic Retrofit Program:  
San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail
- B** Toll Bridge Seismic Retrofit Program Cost Detail
- C** Toll Bridge Seismic Retrofit Program Summary Schedule
- D** Regional Measure 1 Program Cost Detail
- E** Regional Measure 1 Program Summary Schedule

*\* Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.*

## Appendix A: Toll Bridge Seismic Retrofit Program (\$ Millions)

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail**

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>San Francisco-Oakland Bay Bridge East Span Replacement Project</b>							
<b>East Span - Skyway</b>							
	01202X						
Capital Outlay Support		197.0	-	197.0	170.6	197.0	-
Capital Outlay Construction		1,293.0	-	1,293.0	1,187.3	1,293.0	-
<b>Total</b>		1,490.0	-	1,490.0	1,357.9	1,490.0	-
<b>East Span - SAS E2/T1 Foundations</b>							
	0120EX						
Capital Outlay Support		52.5	(11.0)	41.5	24.2	41.5	-
Capital Outlay Construction		313.5	-	313.5	248.1	313.5	-
<b>Total</b>		366.0	(11.0)	355.0	272.3	355.0	-
<b>East Span - SAS Superstructure</b>							
	0120FX						
Capital Outlay Support		214.6	-	214.6	50.8	214.6	-
Capital Outlay Construction		1,753.7	-	1,753.7	301.5	1,767.4	13.7
<b>Total</b>		1,968.3	-	1,968.3	352.3	1,982.0	13.7
<b>SAS W2 Foundations</b>							
	0120CX						
Capital Outlay Support		10.0	-	10.0	9.2	10.0	-
Capital Outlay Construction		26.4	-	26.4	25.8	26.4	-
<b>Total</b>		36.4	-	36.4	35.0	36.4	-
<b>YBI South/South Detour</b>							
	0120RX						
Capital Outlay Support		29.5	10.0	39.5	29.5	39.5	-
Capital Outlay Construction		131.9	202.5	334.4	106.3	334.4	-
<b>Total</b>		161.4	212.5	373.9	135.8	373.9	-
<b>YBI Transition Structures (see notes below)</b>							
	0120PX						
Capital Outlay Support		78.7	-	78.7	15.9	78.7	-
Capital Outlay Construction		299.3	(23.2)	276.1	-	276.1	-
<b>Total</b>		378.0	(23.2)	354.8	15.9	354.8	-
<b>* YBI- Transition Structures Contract No. 1</b>							
Capital Outlay Support					-	45.0	
Capital Outlay Construction					-	214.3	
<b>Total</b>					-	259.3	
<b>* YBI- Transition Structures Contract No. 2</b>							
Capital Outlay Support					-	16.0	
Capital Outlay Construction					-	58.5	
<b>Total</b>					-	74.5	
<b>* YBI- Transition Structures Contract No. 3 Landscape</b>							
Capital Outlay Support					-	1.0	
Capital Outlay Construction					-	3.3	
<b>Total</b>					-	4.3	
<b>Oakland Touchdown (see notes below)</b>							
	01204X						
Capital Outlay Support		74.4	-	74.4	26.8	92.1	17.7
Capital Outlay Construction		283.8	-	283.8	18.7	302.5	18.7
<b>Total</b>		358.2	-	358.2	45.5	394.6	36.4
<b>* OTD Submarine Cable</b>							
	0120K4						
Capital Outlay Support					0.8	3.0	
Capital Outlay Construction					7.8	9.6	
<b>Total</b>					8.6	12.6	
<b>* OTD No. 1 (Westbound)</b>							
	0120L4						
Capital Outlay Support					5.6	49.9	
Capital Outlay Construction					10.9	226.5	
<b>Total</b>					16.5	276.4	
<b>* OTD No. 2 (Eastbound)</b>							
	0120M4						
Capital Outlay Support					0.3	15.8	
Capital Outlay Construction					-	62.0	
<b>Total</b>					0.3	77.8	
<b>* OTD Electrical Systems</b>							
	0120N4						
Capital Outlay Support					0.1	1.4	
Capital Outlay Construction					-	4.4	
<b>Total</b>					0.1	5.8	

Notes: YBI Transition Structures and Oakland Touchdown Cost-to-Date and Cost Forecast includes prior-to-split Capital Outlay Support Costs.

\*Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available programs funds has been made available by the Treasure Island Development Authority

Note: Details may not sum to totals due to rounding effects.

## Appendix A: Toll Bridge Seismic Retrofit Program (\$ Millions)

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail (Cont'd.)**

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Existing Bridge Demolition</b>	<b>01209X</b>						
Capital Outlay Support		79.7	-	79.7	0.3	79.7	-
Capital Outlay Construction		239.2	-	239.2	-	222.0	(17.2)
<b>Total</b>		<b>318.9</b>	<b>-</b>	<b>318.9</b>	<b>0.3</b>	<b>301.7</b>	<b>(17.2)</b>
<b>YBI/SAS Archeology</b>	<b>01207X</b>						
Capital Outlay Support		1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction		1.1	-	1.1	1.1	1.1	-
<b>Total</b>		<b>2.2</b>	<b>-</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>-</b>
<b>YBI - USCG Road Relocation</b>	<b>0120QX</b>						
Capital Outlay Support		3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction		3.0	-	3.0	2.8	3.0	-
<b>Total</b>		<b>6.0</b>	<b>-</b>	<b>6.0</b>	<b>5.5</b>	<b>6.0</b>	<b>-</b>
<b>YBI - Substation and Viaduct</b>	<b>0120GX</b>						
Capital Outlay Support		6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction		11.6	-	11.6	11.3	11.6	-
<b>Total</b>		<b>18.1</b>	<b>-</b>	<b>18.1</b>	<b>17.7</b>	<b>18.1</b>	<b>-</b>
<b>Oakland Geofill</b>	<b>01205X</b>						
Capital Outlay Support		2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction		8.2	-	8.2	8.2	8.2	-
<b>Total</b>		<b>10.7</b>	<b>-</b>	<b>10.7</b>	<b>10.7</b>	<b>10.7</b>	<b>-</b>
<b>Pile Installation Demonstration Project</b>	<b>01208X</b>						
Capital Outlay Support		1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction		9.2	-	9.2	9.2	9.2	-
<b>Total</b>		<b>11.0</b>	<b>-</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>	<b>-</b>
<b>Stormwater Treatment Measures</b>	<b>0120JX</b>						
Capital Outlay Support		6.0	2.0	8.0	7.4	8.0	-
Capital Outlay Construction		15.0	3.3	18.3	14.5	18.3	-
<b>Total</b>		<b>21.0</b>	<b>5.3</b>	<b>26.3</b>	<b>21.9</b>	<b>26.3</b>	<b>-</b>
<b>Right-of-Way and Environmental Mitigation</b>	<b>0120X9</b>						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay & Right-of-Way		72.4	-	72.4	38.8	72.4	-
<b>Total</b>		<b>72.4</b>	<b>-</b>	<b>72.4</b>	<b>38.8</b>	<b>72.4</b>	<b>-</b>
	<b>04343X &amp; 04300X</b>						
<b>Sunk Cost - Existing East Span Retrofit</b>							
Capital Outlay Support		39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction		30.8	-	30.8	30.8	30.8	-
<b>Total</b>		<b>70.3</b>	<b>-</b>	<b>70.3</b>	<b>70.3</b>	<b>70.3</b>	<b>-</b>
<b>Other Capital Outlay Support</b>							
Environmental Phase		97.7	-	97.7	97.7	97.7	-
Pre-Split Project Expenditures		44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs		20.0	(1.0)	19.0	3.2	19.0	-
<b>Total</b>		<b>162.6</b>	<b>(1.0)</b>	<b>161.6</b>	<b>145.8</b>	<b>161.6</b>	<b>-</b>
<b>Subtotal Capital Outlay Support</b>		<b>959.4</b>	<b>-</b>	<b>959.4</b>	<b>534.5</b>	<b>977.1</b>	<b>17.7</b>
<b>Subtotal Capital Outlay Construction</b>		<b>4,492.1</b>	<b>182.5</b>	<b>4,674.6</b>	<b>2,004.4</b>	<b>4,689.9</b>	<b>15.2</b>
<b>Other Budgeted Capital</b>		<b>35.1</b>	<b>(3.3)</b>	<b>31.8</b>	<b>0.6</b>	<b>7.7</b>	<b>(24.1)</b>
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,539.5</b>	<b>5,674.7</b>	<b>8.9</b>

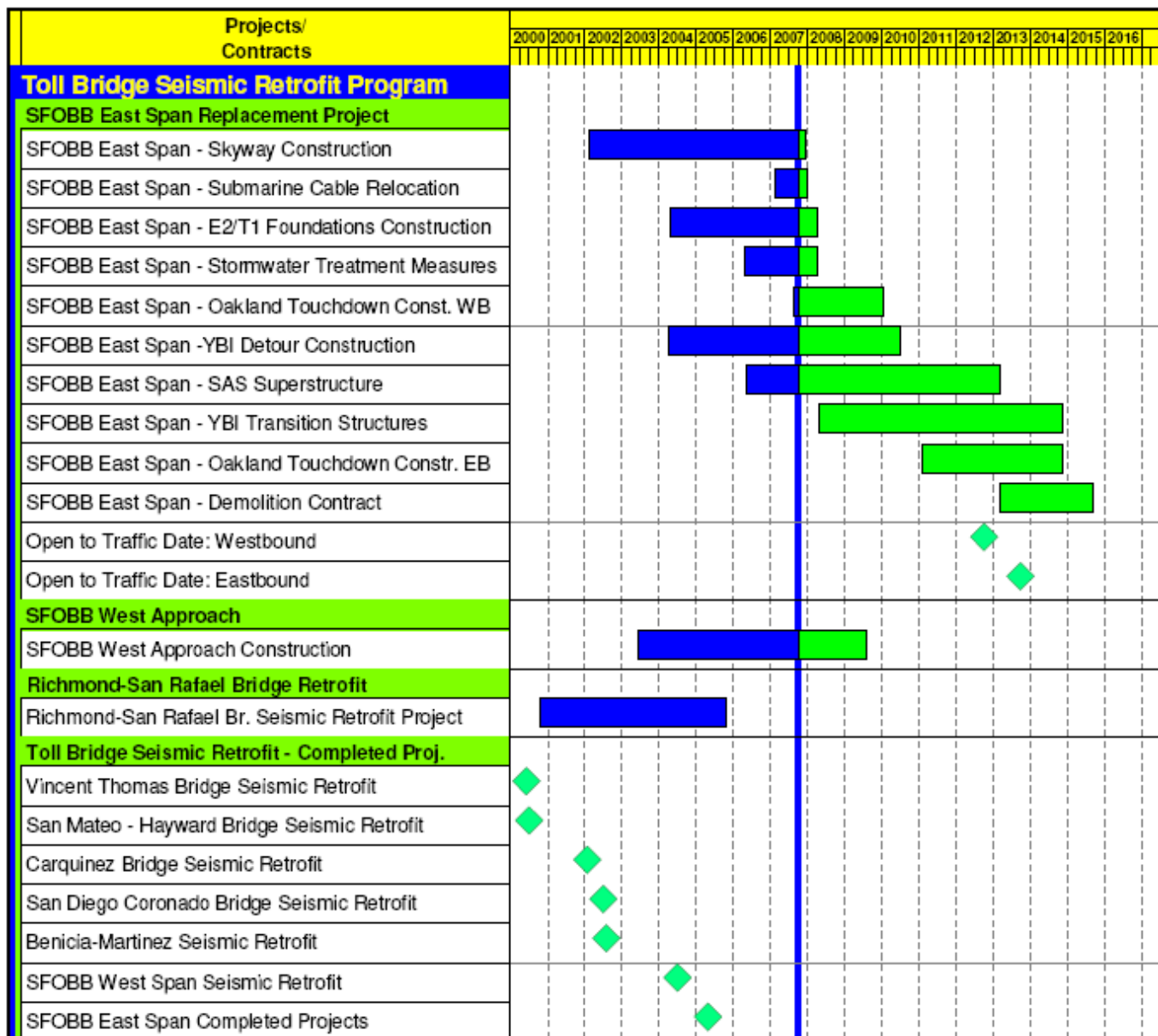
Note: Details may not sum to totals due to rounding effects.

## Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
<b>SFOBB East Span Replacement Project</b>						
Capital Outlay Support	959.4	-	959.4	534.5	977.1	17.7
Capital Outlay Construction	4,492.1	182.5	4,674.6	2,004.4	4,689.9	15.3
Other Budgeted Capital	35.1	(3.3)	31.8	0.6	7.7	(24.1)
<b>Total</b>	<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,539.5</b>	<b>5,674.7</b>	<b>8.9</b>
<b>SFOBB West Approach Replacement</b>						
Capital Outlay Support	120.0	-	120.0	98.0	120.0	-
Capital Outlay Construction	309.0	-	309.0	257.3	309.0	-
<b>Total</b>	<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>355.3</b>	<b>429.0</b>	<b>-</b>
<b>SFOBB West Span Retrofit</b>						
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	226.3	232.9	-
<b>Total</b>	<b>307.9</b>	<b>-</b>	<b>307.9</b>	<b>301.1</b>	<b>307.9</b>	<b>-</b>
<b>Richmond-San Rafael Bridge Retrofit</b>						
Capital Outlay Support	134.0	(7.0)	127.0	126.6	127.0	-
Capital Outlay Construction	780.0	(82.0)	698.0	666.6	698.0	-
<b>Total</b>	<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>793.2</b>	<b>825.0</b>	<b>-</b>
<b>Benicia-Martinez Bridge Retrofit</b>						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
<b>Total</b>	<b>177.8</b>	<b>-</b>	<b>177.8</b>	<b>177.8</b>	<b>177.8</b>	<b>-</b>
<b>Carquinez Bridge Retrofit</b>						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.4	85.5	-
<b>Total</b>	<b>114.2</b>	<b>-</b>	<b>114.2</b>	<b>114.2</b>	<b>114.2</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Retrofit</b>						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
<b>Total</b>	<b>163.5</b>	<b>-</b>	<b>163.5</b>	<b>163.4</b>	<b>163.5</b>	<b>-</b>
<b>Vincent Thomas Bridge Retrofit (Los Angeles)</b>						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
<b>Total</b>	<b>58.5</b>	<b>-</b>	<b>58.5</b>	<b>58.4</b>	<b>58.5</b>	<b>-</b>
<b>San Diego-Coronado Bridge Retrofit</b>						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
<b>Total</b>	<b>103.5</b>	<b>-</b>	<b>103.5</b>	<b>102.6</b>	<b>103.5</b>	<b>-</b>
<b>Subtotal Capital Outlay Support</b>	<b>1,433.2</b>	<b>(7.0)</b>	<b>1,426.2</b>	<b>978.5</b>	<b>1,443.9</b>	<b>17.7</b>
<b>Subtotal Capital Outlay</b>	<b>6,286.7</b>	<b>100.5</b>	<b>6,387.2</b>	<b>3,626.4</b>	<b>6,402.5</b>	<b>15.3</b>
<b>Subtotal Other Budgeted Capital</b>	<b>35.1</b>	<b>(3.3)</b>	<b>31.8</b>	<b>0.6</b>	<b>7.7</b>	<b>(24.1)</b>
<b>Miscellaneous Program Costs</b>	<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.7</b>	<b>30.0</b>	<b>-</b>
<b>Subtotal Toll Bridge Seismic Retrofit Program</b>	<b>7,785.0</b>	<b>90.2</b>	<b>7,875.2</b>	<b>4,630.2</b>	<b>7,884.1</b>	<b>8.9</b>
<b>Program Contingency</b>	<b>900.0</b>	<b>(90.2)</b>	<b>809.8</b>	<b>-</b>	<b>800.9</b>	<b>(8.9)</b>
<b>Total Toll Bridge Seismic Retrofit Program</b>	<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>4,630.2</b>	<b>8,685.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule



## APPENDIX D: REGIONAL MEASURE 1 PROGRAM COST DETAIL (\$ MILLIONS)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (08/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>New Benicia-Martinez Bridge Project</b>							
<b>New Bridge</b>	<b>00603_</b>						
Capital Outlay Support		84.9	7.7	92.6	89.7	89.8	(2.8)
Capital Outlay Construction				-			-
BATA Funding		661.9	100.9	762.8	745.3	762.8	-
Non-BATA Funding		10.1	-	10.1	10.1	10.1	-
Subtotal		672.0	100.9	772.9	755.4	772.9	-
<b>Total</b>		<b>756.9</b>	<b>108.6</b>	<b>865.5</b>	<b>845.1</b>	<b>862.7</b>	<b>(2.8)</b>
<b>I-680/I-780 Interchange Reconstruction</b>							
	<b>00606_</b>						
Capital Outlay Support							
BATA Funding		24.9	5.2	30.1	29.1	30.1	-
Non-BATA Funding		1.4	5.2	6.6	6.3	6.6	-
Subtotal		26.3	10.4	36.7	35.4	36.7	-
Capital Outlay Construction							
BATA Funding		54.7	22.5	77.2	75.1	77.2	-
Non-BATA Funding		21.6	-	21.6	21.7	21.6	-
Subtotal		76.3	22.5	98.8	96.8	98.8	-
<b>Total</b>		<b>102.6</b>	<b>32.9</b>	<b>135.5</b>	<b>132.2</b>	<b>135.5</b>	<b>-</b>
<b>I-680/Marina Vista Interchange Reconstruction</b>							
	<b>00605_</b>						
Capital Outlay Support		18.3	1.8	20.1	19.8	20.0	(0.1)
Capital Outlay Construction		51.5	8.1	59.6	56.1	59.6	-
<b>Total</b>		<b>69.8</b>	<b>9.9</b>	<b>79.7</b>	<b>75.9</b>	<b>79.6</b>	<b>(0.1)</b>
<b>New Toll Plaza and Administration Building</b>							
	<b>00604_</b>						
Capital Outlay Support		11.9	3.8	15.7	15.4	15.7	-
Capital Outlay Construction		24.3	2.0	26.3	23.0	26.3	-
<b>Total</b>		<b>36.2</b>	<b>5.8</b>	<b>42.0</b>	<b>38.4</b>	<b>42.0</b>	<b>-</b>
<b>Existing Bridge &amp; Interchange Modifications</b>							
	<b>0060A_</b>						
Capital Outlay Support		4.3	14.3	18.6	8.7	18.6	-
Capital Outlay Construction							
BATA Funding		17.2	32.8	50.0	-	50.0	-
Non-BATA Funding		-	11.0	11.0	-	11.0	-
Subtotal		17.2	43.8	61.0	-	61.0	-
<b>Total</b>		<b>21.5</b>	<b>58.1</b>	<b>79.6</b>	<b>8.7</b>	<b>79.6</b>	<b>-</b>
<b>Other Contracts</b>							
	<b>See note below</b>						
Capital Outlay Support		11.4	(1.5)	9.9	6.4	8.3	(1.6)
Capital Outlay Construction		20.3	(1.3)	19.0	15.3	19.0	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	-
<b>Total</b>		<b>52.1</b>	<b>(2.9)</b>	<b>49.2</b>	<b>34.0</b>	<b>47.6</b>	<b>(1.6)</b>
<b>Subtotal BATA Capital Outlay Support</b>		<b>155.7</b>	<b>31.3</b>	<b>187.0</b>	<b>169.1</b>	<b>182.5</b>	<b>(4.5)</b>
<b>Subtotal BATA Capital Outlay Construction</b>		<b>829.9</b>	<b>165.0</b>	<b>994.9</b>	<b>914.8</b>	<b>994.9</b>	<b>-</b>
<b>Subtotal Capital Outlay Right-of-Way</b>		<b>20.4</b>	<b>(0.1)</b>	<b>20.3</b>	<b>12.3</b>	<b>20.3</b>	<b>-</b>
<b>Subtotal Non-BATA Capital Outlay Support</b>		<b>1.4</b>	<b>5.2</b>	<b>6.6</b>	<b>6.3</b>	<b>6.6</b>	<b>-</b>
<b>Subtotal Non-BATA Capital Outlay Construction</b>		<b>31.7</b>	<b>11.0</b>	<b>42.7</b>	<b>31.8</b>	<b>42.7</b>	<b>-</b>
<b>Project Reserves</b>		<b>20.8</b>	<b>1.7</b>	<b>22.5</b>	<b>-</b>	<b>27.0</b>	<b>4.5</b>
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>214.1</b>	<b>1,274.0</b>	<b>1,134.3</b>	<b>1,274.0</b>	<b>-</b>

## Notes:

Includes EA's 00601\_, 00603\_, 00605\_, 00606\_, 00608\_, 00609\_, 0060A\_, 0060C\_, 0060E\_, 0060F\_, 0060G\_, and 0060H\_ and all Project Right-of-Way

Note: Details may not sum to totals due to rounding effects.

## Appendix D: Regional Measure 1 Program Cost Detail (\$ Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Carquinez Bridge Replacement Project</b>							
<b>New Bridge</b>	<b>01301_</b>						
Capital Outlay Support		60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction		253.3	4.0	257.3	255.9	257.3	-
<b>Total</b>		<b>313.8</b>	<b>3.7</b>	<b>317.5</b>	<b>316.1</b>	<b>317.5</b>	<b>-</b>
<b>Crockett Interchange Reconstruction</b>	<b>01305_</b>						
Capital Outlay Support		32.0	(0.1)	31.9	31.9	32.0	0.1
Capital Outlay Construction		73.9	-	73.9	71.9	73.9	-
<b>Total</b>		<b>105.9</b>	<b>(0.1)</b>	<b>105.8</b>	<b>103.8</b>	<b>105.9</b>	<b>0.1</b>
<b>Existing 1927 Bridge Demolition</b>	<b>01309_</b>						
Capital Outlay Support		16.1	-	16.1	13.6	14.2	(1.9)
Capital Outlay Construction		35.2	-	35.2	29.7	35.2	-
<b>Total</b>		<b>51.3</b>	<b>-</b>	<b>51.3</b>	<b>43.3</b>	<b>49.4</b>	<b>(1.9)</b>
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		15.8	0.2	16.0	15.5	16.0	-
Capital Outlay Construction		18.8	(0.8)	18.0	15.5	18.1	0.1
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.4	(0.1)
<b>Total</b>		<b>45.1</b>	<b>(0.6)</b>	<b>44.5</b>	<b>40.9</b>	<b>44.5</b>	<b>0.0</b>
<b>Subtotal BATA Capital Outlay Support</b>		<b>124.4</b>	<b>(0.2)</b>	<b>124.2</b>	<b>121.2</b>	<b>122.4</b>	<b>(1.8)</b>
<b>Subtotal BATA Capital Outlay Construction</b>		<b>381.2</b>	<b>3.2</b>	<b>384.4</b>	<b>373.0</b>	<b>384.5</b>	<b>0.1</b>
<b>Subtotal Capital Outlay Right-of-Way</b>		<b>10.5</b>	<b>-</b>	<b>10.5</b>	<b>9.9</b>	<b>10.4</b>	<b>(0.1)</b>
<b>Project Reserves</b>		<b>12.1</b>	<b>(3.0)</b>	<b>9.1</b>	<b>-</b>	<b>0.9</b>	<b>(8.2)</b>
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>504.1</b>	<b>518.2</b>	<b>(10.0)</b>

## Notes:

Other Contracts includes EA's 01301\_, 01302\_, 01303\_, 01304\_, 01305\_, 01306\_, 01307\_, 01308\_, 01309\_, 0130A\_, 0130C\_, 0130D\_, 0130F\_, 0130G\_, 0130H\_, 0130J\_, 00453\_, 00493\_, 04700\_, 00607\_, 2A270\_, and 29920\_ and all Project Right-of-Way

Note: Details may not sum to totals due to rounding effects.

## Appendix D: Regional Measure 1 Program Cost Detail (\$ Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (09/2007)	Cost To Date (09/2007)	Cost Forecast (09/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation</b>							
	See note <sup>1</sup> below						
Capital Outlay Support							
BATA Funding		2.2	-	2.2	1.4	2.2	-
Non-BATA Funding		8.6	-	8.6	10.4	10.4	1.8
Subtotal		10.8	-	10.8	11.8	12.6	1.8
Capital Outlay Construction							
BATA Funding		40.2	-	40.2	33.4	33.4	(6.8)
Non-BATA Funding		51.1	-	51.1	51.1	51.1	-
Subtotal		91.3	-	91.3	84.5	84.5	(6.8)
Project Reserves		-	-	-	-	-	-
<b>Total</b>		<b>102.1</b>	<b>-</b>	<b>102.1</b>	<b>96.3</b>	<b>97.1</b>	<b>(5.0)</b>
<b>Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>							
	04152_						
Capital Outlay Support							
BATA Funding		4.0	(0.4)	3.6	3.3	3.6	-
Non-BATA Funding		4.0	(4.0)	-	-	-	-
Subtotal		8.0	(4.4)	3.6	3.3	3.6	-
Capital Outlay Construction		16.9	3.6	20.5	16.3	16.2	(4.3)
Project Reserves		0.1	0.8	0.9	-	5.2	4.3
<b>Total</b>		<b>25.0</b>	<b>-</b>	<b>25.0</b>	<b>19.6</b>	<b>25.0</b>	<b>-</b>
<b>Richmond Parkway Project (RM 1 Share Only)</b>							
	Non-Caltrans						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		5.9	-	5.9	4.3	5.9	-
<b>Total</b>		<b>5.9</b>	<b>-</b>	<b>5.9</b>	<b>4.3</b>	<b>5.9</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Widening</b>							
	See note <sup>2</sup> below						
Capital Outlay Support		34.6	(0.3)	34.3	34.1	34.3	-
Capital Outlay Construction		180.2	-	180.2	174.1	177.2	(3.0)
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves		1.5	0.3	1.8	-	0.3	(1.5)
<b>Total</b>		<b>217.8</b>	<b>-</b>	<b>217.8</b>	<b>208.7</b>	<b>212.4</b>	<b>(5.4)</b>
<b>I-880/SR-92 Interchange Reconstruction</b>							
	EA's 23317_, 01601_, and 01602_						
Capital Outlay Support		28.8	26.2	55.0	33.2	55.0	-
Capital Outlay Construction							
BATA Funding		85.2	60.2	145.4	-	145.4	-
Non-BATA Funding		9.6	-	9.6	-	9.6	-
Subtotal		94.8	60.2	155.0	-	155.0	-
Capital Outlay Right-of-Way		9.9	5.1	15.0	8.3	15.0	-
Project Reserves		0.3	19.7	20.0	-	20.0	-
<b>Total</b>		<b>133.8</b>	<b>111.2</b>	<b>245.0</b>	<b>41.5</b>	<b>245.0</b>	<b>-</b>
<b>Bayfront Expressway Widening</b>							
	EA's 00487_, 01511_, and 01512_						
Capital Outlay Support		8.6	(0.3)	8.3	8.2	8.2	(0.1)
Capital Outlay Construction		26.5	-	26.5	24.9	26.5	-
Capital Outlay Right-of-Way		0.2	-	0.2	0.2	0.2	-
Project Reserves		0.8	0.3	1.1	-	1.1	-
<b>Total</b>		<b>36.1</b>	<b>-</b>	<b>36.1</b>	<b>33.3</b>	<b>36.0</b>	<b>(0.1)</b>
<b>US 101/University Avenue Interchange Modification</b>							
	Non-Caltrans						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		3.8	-	3.8	3.7	3.8	-
<b>Total</b>		<b>3.8</b>	<b>-</b>	<b>3.8</b>	<b>3.7</b>	<b>3.8</b>	<b>-</b>
<b>Subtotal BATA Capital Outlay Support</b>		<b>358.3</b>	<b>56.3</b>	<b>414.6</b>	<b>370.5</b>	<b>408.2</b>	<b>(6.4)</b>
<b>Subtotal BATA Capital Outlay Construction</b>		<b>1,569.8</b>	<b>232.0</b>	<b>1,801.8</b>	<b>1,544.5</b>	<b>1,787.8</b>	<b>(14.0)</b>
<b>Subtotal Capital Outlay Right-of-Way</b>		<b>42.5</b>	<b>5.0</b>	<b>47.5</b>	<b>31.2</b>	<b>46.5</b>	<b>(1.0)</b>
<b>Subtotal Non-BATA Capital Outlay Support</b>		<b>14.0</b>	<b>1.2</b>	<b>15.2</b>	<b>16.7</b>	<b>17.0</b>	<b>1.8</b>
<b>Subtotal Non-BATA Capital Outlay Construction</b>		<b>92.4</b>	<b>11.0</b>	<b>103.4</b>	<b>82.9</b>	<b>103.4</b>	<b>-</b>
<b>Project Reserves</b>		<b>35.6</b>	<b>19.8</b>	<b>55.4</b>	<b>-</b>	<b>54.5</b>	<b>(0.9)</b>
<b>Total RM1 Program</b>		<b>2,112.6</b>	<b>325.3</b>	<b>2,437.9</b>	<b>2,045.8</b>	<b>2,417.4</b>	<b>(20.5)</b>

## Notes:

<sup>1</sup> Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U\_ and 04157\_

<sup>2</sup> San Mateo-Hayward Bridge Widening Includes EA's 00305\_, 04501\_, 04502\_, 04503\_, 04504\_, 04505\_, 04506\_, 04507\_, 04508\_, 04509\_, 27740\_, 27790\_, 04860\_

Note: Details may not sum to totals due to rounding effects.

Appendix E: Regional Measure 1 Program Summary Schedule

Projects/ Contracts	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	<b>Regional Measure 1 Program</b>													
<b>New Benicia-Martinez Bridge Project</b>														
Benicia-Martinez Bridge South Approach		█	█											
Benicia Wetland Mitigation							█	█						
I-880/Marina Vista Interchange				█	█	█	█	█						
Martinez Toll Plaza				█	█	█	█	█						
New Benicia-Martinez Bridge				█	█	█	█	█	█	█				
I-880/I-780 Interchange - Benicia-Martinez Elect				█	█	█	█	█	█	█				
Modify Existing Bridge & Approaches										█	█			
Benicia-Martinez Landscaping												█	█	
<b>Carquinez Bridge Replacement Project</b>														
Maintenance Facility (Phase II)			█	█										
South Approach and Interchange			█	█	█									
Replacement Bridge and North Approach			█	█	█									
Carquinez Bridge - 1927 Bridge Demolition								█	█	█				
<b>Richmond-San Rafael Bridge Rehabilitation</b>														
Trestle, Fender and Deck Joint Rehabilitation			█	█	█	█	█							
Richmond-San Rafael Deck Overlay Rehabilitation								█						
<b>San Mateo-Hayward Bridge Widening</b>														
San Mateo Bridge - Widen Trestle		█	█	█										
<b>I-880/SR-92 Interchange Reconsruction</b>														
I-880/SR 92 Interchange Improvement										█	█	█	█	
<b>Bayfront Expressway Widening</b>														
Bayfront Expressway (SR84) Widening				█	█									

## Appendix F: Glossary of Terms

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**AB144/SB 66 BUDGET:** The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

**BATA BUDGET:** The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

**APPROVED CHANGES:** For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

**CURRENT APPROVED BUDGET:** The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

**COST TO DATE:** The actual expenditures incurred by the program, project or contract as of the month and year shown.

**COST FORECAST:** The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

**AT COMPLETION VARIANCE or VARIANCE (cost):** The mathematical difference between the Cost Forecast and the Current Approved Budget.

**AB 144/SB 66 PROJECT COMPLETE BASELINE:** The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

**BATA PROJECT COMPLETE BASELINE:** The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

**PROJECT COMPLETE CURRENT APPROVED SCHEDULE:** The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

**PROJECT COMPLETE SCHEDULE FORECAST:** The current projected date for the completion of the program, project, or contract.

**SCHEDULE VARIANCE or VARIANCE (schedule):** The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

The following information is provided in accordance with California Government code Section 7550:

*This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production, is \$1,574,873.*

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