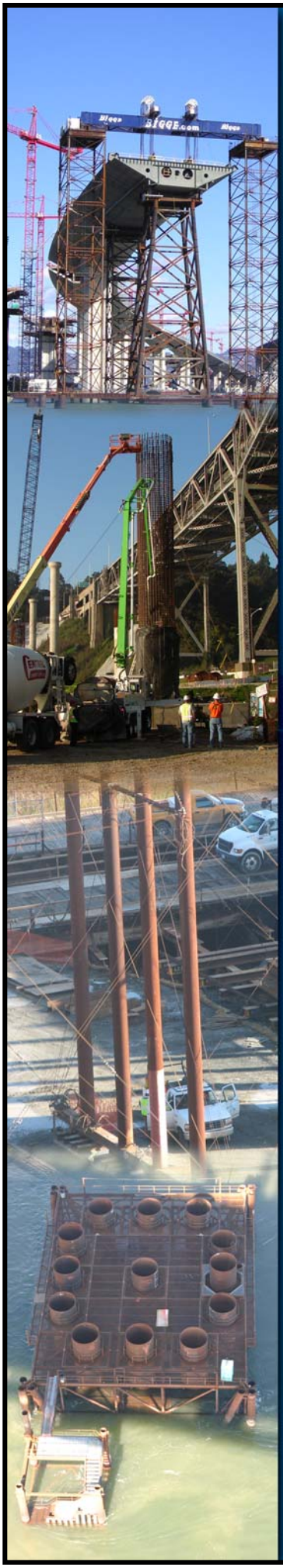


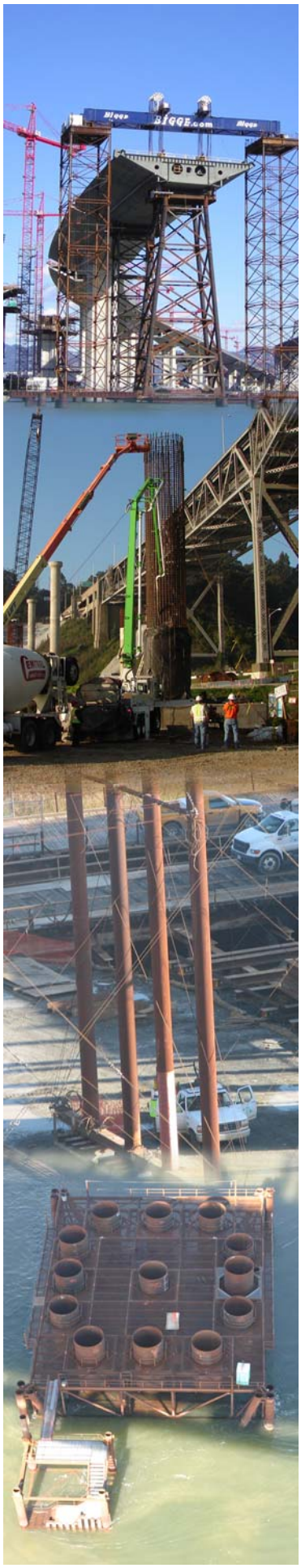
Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Monthly Progress Report
April 2006

TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: May 2006



Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Monthly Progress Report
April 2006

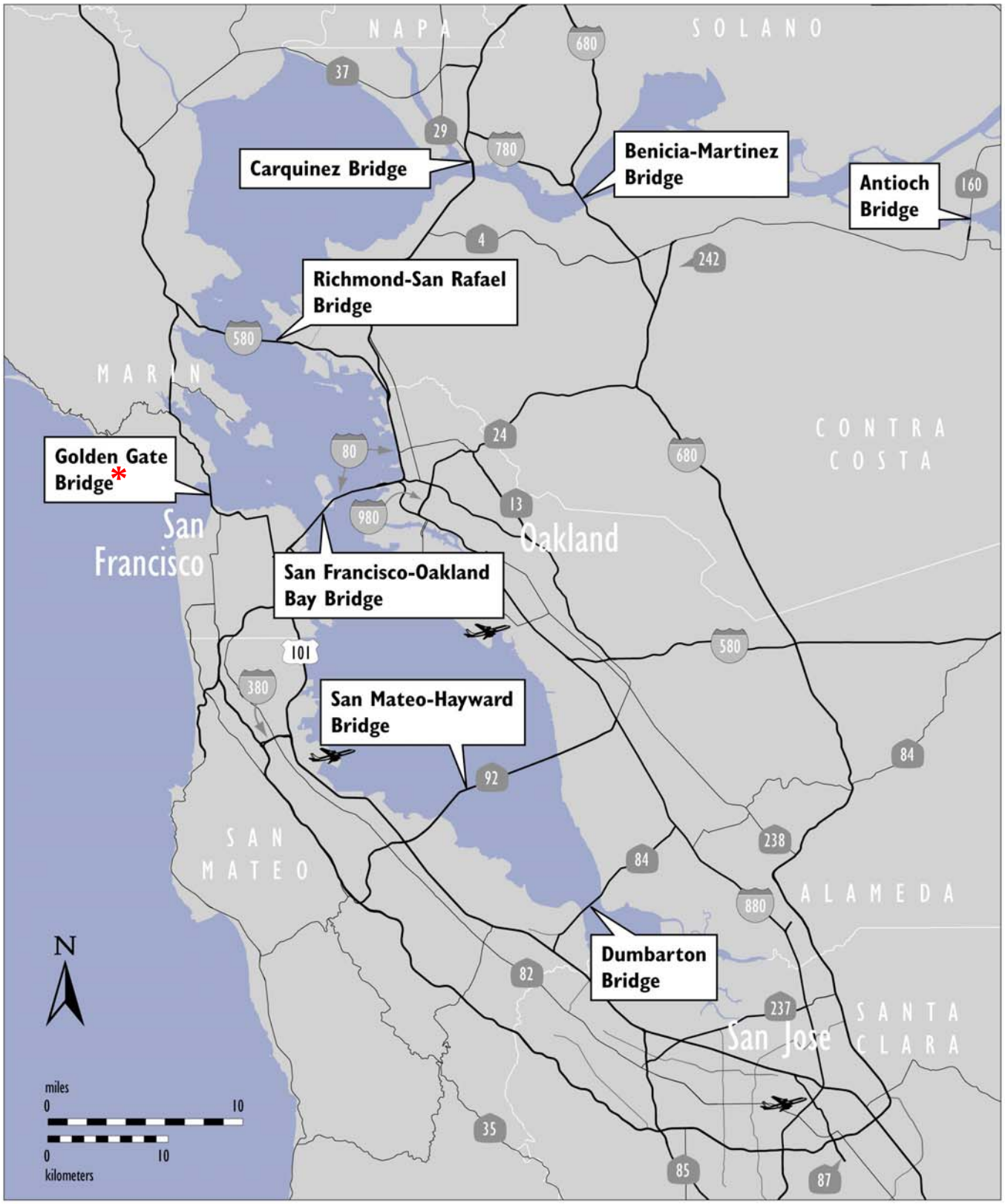
TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE
CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

URS Hatch Mott MacDonald
Bay Area Management Consultants
An Association of URS Corporation and Hatch Mott MacDonald

05022006 v07

TABLE OF CONTENTS

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, Hancock (AB 144) 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. Comprised of 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 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
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
New Benicia-Martinez Bridge	Construction
1927 Carquinez Bridge Demolition	Construction
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Advertise
Interstate 880/State Route 92 Interchange Reconstruction	Design
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 (03/2006)	Cost To Date (03/2006)	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
SFOBB East Span Replacement Project								
Capital Outlay Support		959.4	-	959.4	418.9	977.1	17.7	●
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	999.9	1,293.0	-	●
SAS Superstructure	Awarded	1,753.7	-	1,753.7	-	1,767.4	13.7	●
SAS E2/T1 Foundations	Construction	313.5	-	313.5	100.6	313.5	-	●
YBI Transition Structures	Design	299.3	-	299.3	-	318.5	19.2	●
Oakland Touchdown	Design	283.8	-	283.8	-	272.7	(11.1)	●
South/South Detour	Design/ Const	131.9	-	131.9	32.3	133.7	1.8	●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Design	15.0	-	15.0	-	15.0	-	●
East Span Completed Projects		90.3	-	90.3	89.1	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.7	72.4	-	●
Other Budgeted Capital		35.1	-	35.1	-	11.0	(24.1)	
Total SFOBB East Span Replacement Project		5,486.6	-	5,486.6	1,679.5	5,486.6	-	
SFOBB West Approach Replacement	Construction							●
Capital Outlay Support		120.0	-	120.0	74.9	120.0	-	
Capital Outlay Construction		309.0	-	309.0	186.0	309.0	-	
Total SFOBB West Approach Replacement		429.0	-	429.0	260.9	429.0	-	
Richmond-San Rafael Bridge Retrofit	Construction							●
Capital Outlay Support		134.0	-	134.0	124.9	127.0	(7.0)	
Capital Outlay Construction		780.0	-	780.0	663.7	698.0	(82.0)	
Total Richmond-San Rafael Bridge Retrofit		914.0	-	914.0	788.6	825.0	(89.0)	
Program Completed Projects	Complete							
Capital Outlay Support		219.8	-	219.8	219.3	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.0	705.6	-	
Total Program Completed Projects		925.4	-	925.4	917.3	925.4	-	
Miscellaneous Program Costs		30.0	-	30.0	25.6	30.0	-	
Program Contingency		900.0	-	900.0	-	989.0	89.0	
Total Toll Bridge Seismic Retrofit Program		8,685.0	-	8,685.0	3,671.9	8,685.0	-	

● *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.

** Cost forecasts are as of March 31, 2006. 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 (03/2006)	Project Complete Schedule Forecast (03/2006)	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	-	Apr 07	Apr 07	-	●	A schedule extension due to hinge pipe beam fabrication, service platforms electrical appurtenances, polyester concrete, etc., is currently under evaluation and subject to negotiations with the contractor. Forecast completion date is TBD. See page 10.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	Bids were opened on 3/22/06. Contract Award expected by April 18, 2006. See pages 9 and 14.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	●	In March 2006, the TBPOC approved the split of the YBI contract into three contracts. Schedules and estimates for the split contracts are being developed.
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	
• OTD Submarine Cable	n/a		Jul 07	Oct 07	3	●	Advertise date postponed pending execution of cooperative agreement with City of San Francisco.
• OTD Westbound	n/a		Jul 09	Oct 09	3	●	Advertise date postponed to provide additional time for completion of PS&E.
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	
YBI South/South Detour	Jul 07	-	Jul 07	Jul 07	-	●	Schedule is being assessed. Forecast completion date is TBD.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	
Stormwater Treatment Measures	Mar 08	-	Mar 08	May 07	(10)	●	Forecast based on actual award date and duration in contractor's A+B bid.
Open to Traffic Date: West Bound	Sep 11	12	Sep 12	Sep 12	-	●	
Open to Traffic Date: East Bound	Sep 12	12	Sep 13	Sep 13	-	●	
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Aug 09	-	●	
Richmond-San Rafael Bridge							
• Seismic Retrofit Project	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of this contract on October 28, 2005.
• Public Access Project	n/a	-	Dec 06	May 07	5	●	

Regional Measure 1 Program—Cost ($Millions)

Project	Work Status	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	I
New Benicia-Martinez Bridge Project	Construction							●
Capital Outlay Support		157.1	21.1	178.2	147.2	178.2	-	
Capital Outlay Construction		861.6	143.1	1,004.7	790.1	1,004.7	-	
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.2	20.3	-	
Project Reserve		20.8	39.0	59.8	-	59.8	-	
Total New Benicia-Martinez Bridge Project		1,059.9	203.1	1,263.0	949.5	1,263.0	-	
Carquinez Bridge Replacement Project	Construction							●
Capital Outlay Support		124.4	-	124.4	115.5	125.4	1.0	
Capital Outlay Construction		381.2	-	381.2	358.3	383.3	2.1	
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-	
Project Reserve		12.1	-	12.1	-	9.0	(3.1)	
Total Carquinez Bridge Replacement Project		528.2	-	528.2	483.7	528.2	-	
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Design							●
Capital Outlay Support		8.0	(3.5)	4.5	1.7	4.5	-	
Capital Outlay Construction		16.9	3.6	20.5	-	20.5	-	
Project Reserve		0.1	(0.1)	-	-	-	-	
Total Richmond-San Rafael Bridge Deck Overlay Rehabilitation		25.0	-	25.0	1.7	25.0	-	
I-880/SR-92 Interchange Reconstruction	Design							●
Capital Outlay Support		28.8	-	28.8	27.7	43.2	14.4	
Capital Outlay Construction		94.8	-	94.8	-	119.0	24.2	
Capital Outlay Right-of-Way		9.9	-	9.9	7.5	13.0	3.1	
Project Reserve		0.3	-	0.3	-	11.1	10.8	
Total I-880/SR-92 Interchange Reconstruction		133.8	-	133.8	35.2	186.3	52.5	
Program Completed Projects	Complete							
Capital Outlay Support		54.0	-	54.0	54.0	55.5	1.5	
Capital Outlay Construction		307.6	-	307.6	291.4	296.8	(10.8)	
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)	
Project Reserve		1.8	-	1.8	0.2	0.7	(1.1)	
Total Program Completed Projects		364.9	-	364.9	346.1	353.6	(11.3)	
Total Regional Measure 1 Program		2,111.8	203.1	2,314.9	1,816.2	2,356.1	41.2	

● *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.

** Cost forecasts are as of March 31, 2006. 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 (03/2006)	Project Complete Schedule Forecast (03/2006)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d= b + c	e	f = e - d	g	h
New Benicia-Martinez Bridge Project							
• New Benicia-Martinez Bridge	Dec 07	-	Dec 07	Oct 07	(2)	●	Forecast date shown assumes achievement of early completion incentive
• I-680/I-780 Interchange Replacement	Dec 07	-	Dec 07	Feb 08	2	●	
• Open to Traffic Date	Dec 07	-	Dec 07	Dec 07	-	●	
1927 Carquinez Bridge Demolition Project	Dec 07	-	Dec 07	Sep 07	(3)	●	
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Jan 07	-	Jan 07	Apr 07	3	●	Schedule delay is due to revised advertise date and allowance for bid/award cycle, and one-year construction duration. See page 45.
I-880/SR-92 Interchange Reconstruction	Nov 10	-	Nov 10	Jun 11	7	●	Delay in the procurement of right-of-way is impacting the cost/schedule for this project. See page 46.

Highlight of Project/Program Activities and TBPOC Actions for April 2006

Toll Bridge Seismic Retrofit Program

SFOBB East Span Seismic Replacement

- Caltrans awarded the contract for construction of the self-anchored suspension span (SAS) for the new east span of the San Francisco-Oakland Bay Bridge to American Bridge Flour Enterprises, Inc, a Joint Venture (ABF) on April 18, 2006. ABF's $1.435 billion bid was the lower of two bids submitted for the contract on March 22, 2006. (see pages 9 and 14).
- The Stormwater Treatment Measures contract to implement best practices for stormwater runoff treatment at the SFOBB toll plaza was awarded to Diablo Contractors on March 20, 2006. (see page 20).
- In March 2006, the TBPOC approved the Plans, Specifications, and Estimate (PS&E) for the Oakland Touchdown Submarine Cable contract (see page 20).

SFOBB West Approach Seismic Replacement

- In March 2006, the TBPOC gave conceptual approval of the June 2006 communication plan developed to support the demolition of frame 8U North (see page 25).

Regional Measure 1 Program

Richmond-San Rafael Bridge Deck Overlay Project

- Bid opening for the Richmond-San Rafael Bridge Deck Overlay Project is scheduled for April 26, 2006. An addendum to the contract was issued on April 12, 2006 to include the repair of a number of deck joints on the bridge (see page 45).
- The lowering of the southern truss section of the 1927 Carquinez Bridge was completed on April 25, 2006 (see page 42).

PROJECT / CONTRACT REPORTS

Toll Bridge Seismic Retrofit Program

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

- Skyway Contract
- Self-Anchored Suspension (SAS) Superstructure Contract
- Self-Anchored Suspension (SAS) E2/T1 Foundation Contract
- Yerba Buena Island (YBI) South/South Detour 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

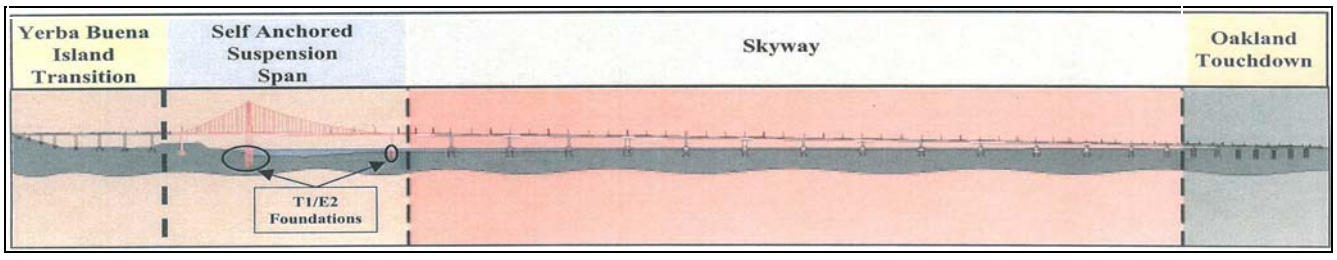
San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

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) South/South 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 (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	418.9	977.1	17.7
Capital Outlay				-	-	-
Skyway	1,293.0	-	1,293.0	999.9	1,293.0	-
SAS Superstructure	1,753.7	-	1,753.7	-	1,767.4	13.7
SAS E2/T1 Foundations	313.5	-	313.5	100.6	313.5	-
YBI Structures	299.3	-	299.3	-	318.5	19.2
Oakland Touchdown	283.8	-	283.8	-	272.7	(11.1)
YBI South/South Detour	131.9	-	131.9	32.3	133.7	1.8
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	-	15.0	-
East Span Completed Projects	90.3	-	90.3	89.1	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.7	72.4	-
Other Budgeted Capital	35.1	-	35.1	-	11.0	(24.1)
TOTAL	5,486.6	-	5,486.6	1,679.5	5,486.6	-

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



SFOBB East Span Replacement Project

SFOBB East Span Replacement Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
Skyway	April 2007	-	April 2007	April 2007	-
YBI South / South Detour*	July 2007	-	July 2007	July 2007	-
Stormwater Treatment Measures	March 2008	-	March 2008	May 2007	(10)
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
Open to Traffic: West Bound	September 2011	12	September 2012	September 2012	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Open to Traffic: East Bound	September 2012	12	September 2013	September 2013	-
Oakland Touchdown (all contracts)*	November 2013	12	November 2014	November 2014	-
YBI Transition Structure*	November 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-

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

Project Status: Construction is currently ongoing on the Skyway, YBI South/South Detour, and SAS E2/T1 Foundation contracts. On March 22, 2006, Caltrans opened two bids for the SAS contract with the lowest bid received from American Bridge Fluor Enterprises, Inc, a Joint Venture (American Bridge) at $1.435 billion. Caltrans has evaluated the bid and awarded the contract to American Bridge on April 18, 2006. The Stormwater Treatment Measures contract was awarded to Diablo Contractors on March 20, 2006, with construction scheduled to begin in April 2006. Contracts in design include the Oakland Touchdown (OTD) Westbound, OTD Eastbound, and OTD Submarine Cable contracts, and the YBI Transition Structure Contract, and Existing Bridge Demolition contract. The OTD contracts have been split and design of each contract is proceeding per its schedule requirements; and the TBPOC approved the Plans, Specifications, and Estimate (PS&E) for the OTD Submarine Cable contract in March 2006. In February 2006, the TBPOC authorized the split of the YBI Transition Structures contract into three separate contracts. Design work on the Existing Bridge Demolition contract is currently on hold.

SAS contract Addendum #5 and Addendum #7 together extended the SAS contract by a total of 12 months in response to bidder inquiries, and to attract more bids, thereby decreasing project costs. There has been a like impact to the West Bound and East Bound Open to Traffic dates, and the completion of the OTD, YBI Transition Structure, and the Existing Bridge Demolition contracts. The East Span corridor cost and schedule forecast does not assume achievement of the early completion incentive that was also part of Addendum #7; however, schedule planning of the future construction contracts continues assuming that the SAS early completion is achieved to ensure that they will not impact bridge opening in that event.

Project Issues: Caltrans, BATA, and CTC are working as a single team to mitigate the impact of the various cost and schedule risks that have been identified (to include an 80 percent probability of a 21-month extension of the SAS contract completion) through risk response actions, such as implementation of the fabrication action and solution team (FAST), the campus concept for integrating supplier/fabricator/Caltrans teams, and a review of the COS resources that can mitigate many of the delay-causing possibilities. These and other proactive approaches to reduce risk impact and to retire risk issues as early as possible will continue throughout the life of the SFOBB East Span Project.

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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - Skyway						
Capital Outlay Support	197.0	-	197.0	133.3	197.0	-
Capital Outlay Construction	1,293.0	-	1,293.0	999.9	1,293.0	-
TOTAL	1,490.0	-	1,490.0	1,133.2	1,490.0	-

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 (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
East Span - Skyway	April 2007	-	April 2007	April 2007	-

Contract Status: The Skyway contract is currently in construction and is 88% complete as of March 20, 2006. The Foundation work is complete with the exception of installing Fenders around six of the pier footings. The Fender work began in late January 2006 and is scheduled to be completed by September 2006. The Pier Tables are 89% complete with the last remaining three Pier Tables in various stages of construction. Completion of the Pier Tables is scheduled for June 2006. Segment erection is currently 76% complete. The Eastbound structure is 98% complete with only 4 segments remaining to be erected, while the Westbound structure is 53% complete with 106 segments remaining to be erected. Erection activities are underway at Pier E8W and Pier E3E (refer to diagram on page 13). The eastbound Orthotropic Box Girder was erected on February 7 & 8, 2006. The westbound Orthotropic Box Girder is scheduled to be erected in July 2006. Bike Path cantilever beams continue to be installed with 88% complete and the installation of the panel segments is currently 24% complete. The Stockton pre-cast yard continues to cast one concrete bridge segment every two to three days in each of the two casting beds, or roughly 5 segments per week. Currently, 438 of 452 segments or 97% have been cast with the remaining 14 segments scheduled to be complete by June 2006. A total of 342 segments (76%) have been installed to date.

Contract Issues:

Issue	Mitigating Action
KFM issued 11 NOPC's on behalf of USI for welding issues related to the fabrication of the Steel Orthotropic Box Girders (SOBG).	USI continues fabrication of the SOBG with continued inspection by the Department. All NOPC's filed were recommended to be heard by the DRB. DRB conducted hearings on two issues in March with three more issues scheduled for DRB hearing in May.
A schedule extension is currently being analyzed as a result of issues with the fabrication of the hinge pipe beams that connect the major frames of the bridge.	While Caltrans is evaluating the contractor's fabrication methodology for the pipe beams, the contractor is currently mitigating the schedule delays by re-sequencing segment erection activities; however, a delay to the Skyway contract is anticipated due to hinge pipe beam fabrication, service platforms, electrical appurtenances, polyester concrete overlay, modular joints and other operations to be completed. The amount of contract delay is subject to analysis by Caltrans and negotiation with the contractor. The projected delay to the Skyway project is not expected to delay the overall open-to-traffic date for the East Span Replacement project, nor is the cost associated with this delay expected to impact the overall budget for the Skyway contract. NOPC #11, regarding the Hinge Pipe Beam issues was heard by the Dispute Resolution Board (DRB) in November and December with two, two-day hearings. The Board's decision was released on January 26, 2006, in a unanimous 3-0 vote for the contractor. Its impact is being evaluated by Caltrans and the TBPOC. Caltrans has informed the Board that the DRB recommendations remain unresolved.
Transbay Steel (Contractor's hinge pipe beam fabricator) does not have enough welders to support the hinge pipe beam production schedule and the fabrication of piles for the E2/T1 contract.	Contractor has assigned their own staff at Transbay's facilities to expedite production

Recent TBPOC Actions: In February 2006, the TBPOC approved SFOBB East Span Skyway Contract Change Order (CCO) 83, "Service Platform Design Changes" and CCO 83 Supplemental 1, "Service Platform Installation Work", at values of $1,055,531 and $1.0 million respectively.

Contract Photographs

Bike Path Scaffold

Closure Pour for the Transition Span at Eastbound Skyway

Construction of Barrier Rail on the Eastbound Skyway

Hinge Pipe Beam on Temporary Support

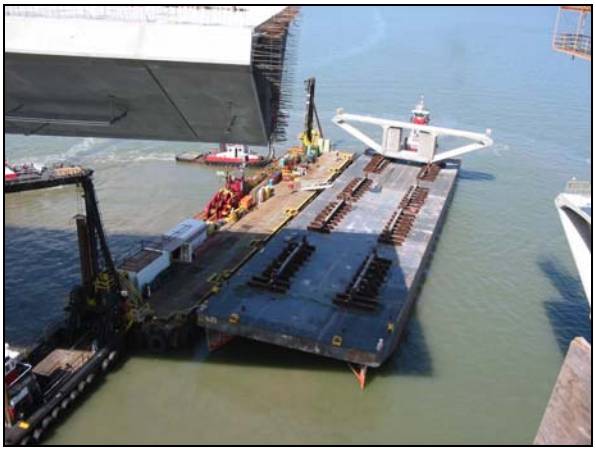
Contract Photographs cont.

Lifting of Precast Segment for Skyway Deck

Orthotropic Box Girder Closure Pour

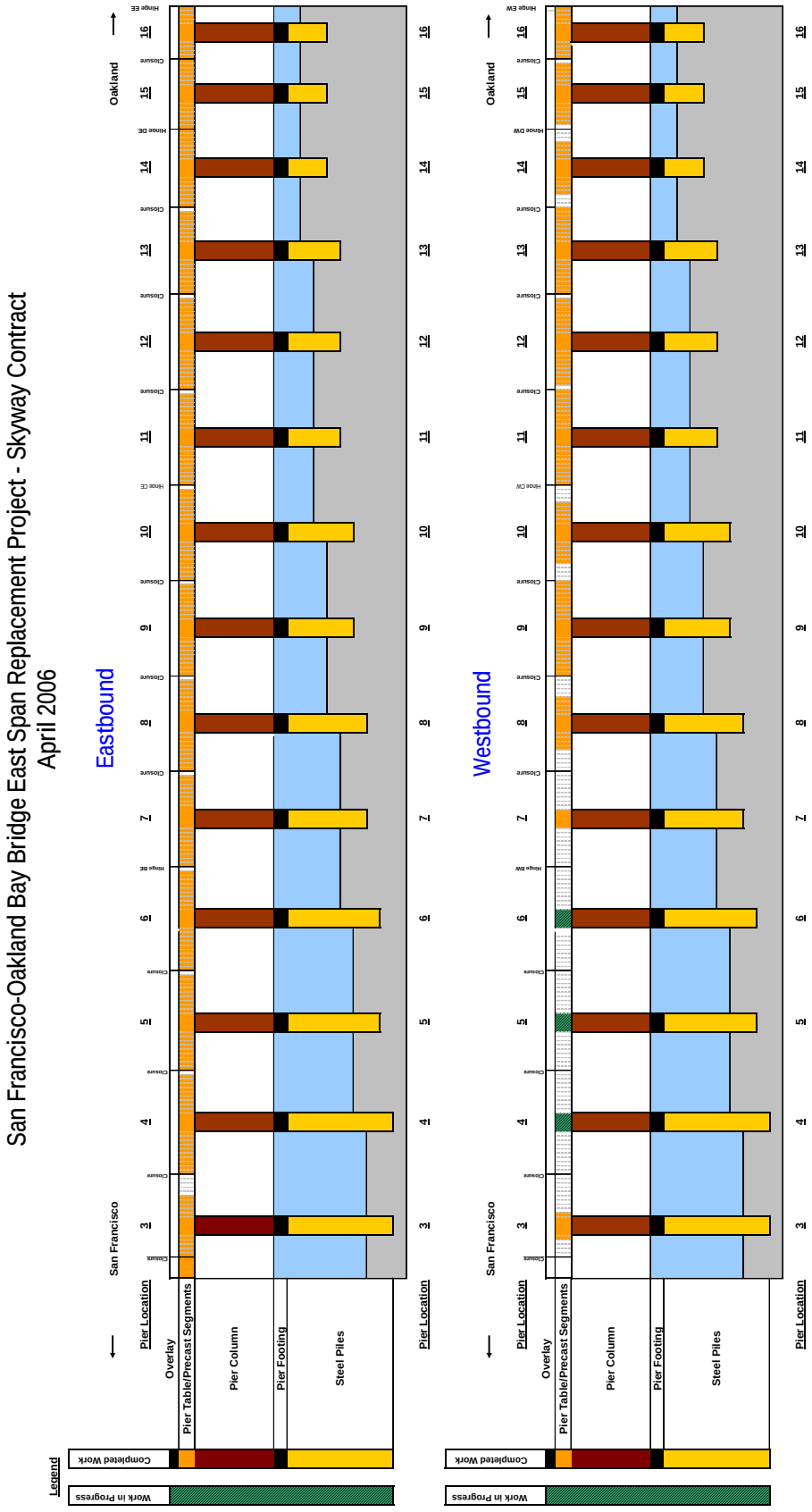
Pier Table Closure Pour

Pier Table Deck



Precast Segment for Skyway Deck

Stripping Pier Table Forms


San Francisco-Oakland Bay Bridge East Span Replacement Project - Skyway Contract
April 2006
Eastbound
Westbound
San Francisco
Oakland
Pier Location
Overlay
Pier Table/Precast Segments
Pier Column
Pier Footing
Steel Piles
Legend
Completed Work
Work in Progress

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 (awarded), 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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	214.6	-	214.6	19.3	214.6	-
Capital Outlay Construction	1,753.7	-	1,753.7	-	1,767.4	13.7
TOTAL	1,968.3	-	1,968.3	19.3	1,982.0	13.7

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 (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
East Span - SAS Superstructure	March 2012	12	March 2013	March 2013	-

Contract Status: The SAS Superstructure Contract was re-advertised on August 1, 2005. Bid opening was held on March 22, 2006, at which time, two bids were received. The apparent low bidder out of the two bids submitted was American Bridge Fluor Enterprises, Inc., a Joint Venture (ABF), which bid $1.435 billion for the project, approximately $49 million less than the engineer's estimate. Caltrans has reviewed the ABF bid and awarded the contract on April 18, 2006. The project budget and schedule for the SAS contract will be updated in future monthly reports, as needed.

The estimate-at-completion forecast for the project is being re-evaluated to reflect recent TBPOC direction concerning schedule revisions, increased stipend amounts, incentives and the March 22, 2006 apparent low bid amount.

The forecast $13.7 million increase in construction costs on the SAS contract from the approved budget reflects actions taken to encourage additional bidders for the contract.

Contract Issues:

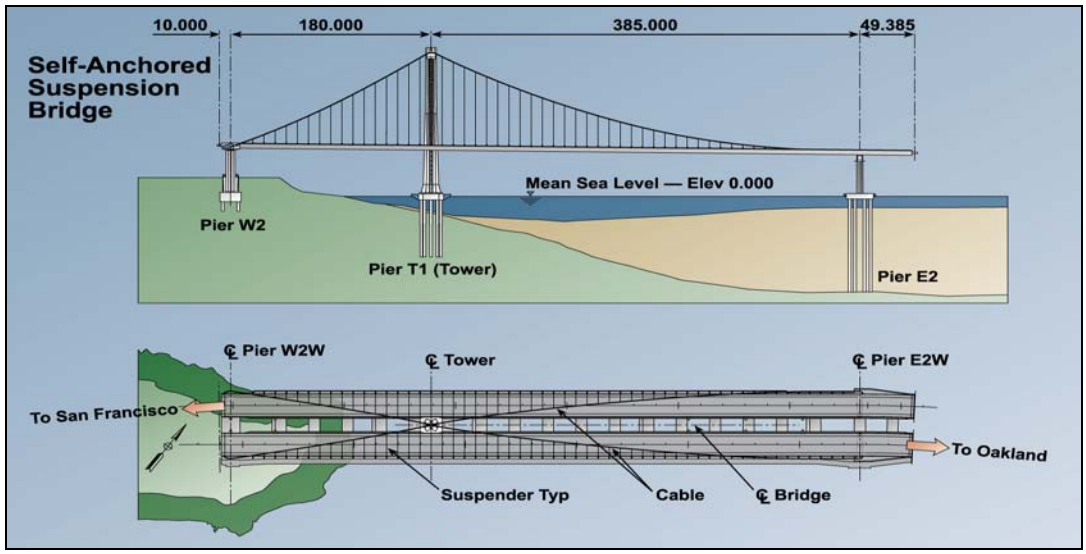
Issue	Mitigating Action
There were several design changes identified during the bid period that were not included in the addenda process. Delay in the issuance of some these changes could potentially impact the start of the Contractor's shop drawing preparation.	Caltrans has developed and prioritized a list of potential Contract Change Order (CCO) issues. Change order packages are being prepared for the immediate priority items and will be issued shortly after the Contract is awarded.

Recent TBPOC Actions: In January 2006, the TBPOC approved Addendum #7, which revised the bid opening date to March 22, 2006; added six months to the contract schedule, increased the bid stipend to $5 million for the top three bidders, and provided for an incentive for early completion of up to six months as a means of increasing competition and to attract multiple bids.

Contract Photographs

SAS Superstructure Artist Rendition

View of the Western end of the Skyway contract that will connect with the future SAS contract.



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 Foundation contract constructs the main tower foundation at T1 and the adjacent east foundation at E2.

SAS E2/T1 Foundation Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	52.5	-	52.5	9.4	52.5	-
Capital Outlay Construction	313.5	-	313.5	100.6	313.5	-
TOTAL	366.0	-	366.0	110.0	366.0	-

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

SAS E2/T1 Foundation Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
East Span - SAS E2 / T1 Foundations	June 2008	(3)	March 2008	March 2008	-

Contract Status: The contract is 32% complete as of March 20, 2006. Contractor has completed installation of template and temporary casings at the T1 foundation. The drilling operation of T1 piles, which commenced on February 20, 2006, is in progress. Fabrication of steel piles for T1 is approximately 10% complete and those for E2 are about 50% complete.

Contract Issues: None.

Recent TBPOC Actions: None.

Project Photographs

Drilling operations for T1 Foundation

Drilling operations for T1 Foundation

Installed Steel Pipe casings at the SAS T1 Tower Foundation

Installation of E2 Foundation Template

E2 Foundation Template

Drilling Operations for T1 Foundation

Toll Bridge Seismic Retrofit Program

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

YERBA BUENA ISLAND (YBI) SOUTH/SOUTH DETOUR CONTRACT

Contract Description: The Yerba Buena Island (YBI) South/South Detour Contract 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 South/South Detour Cost Summary ($Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
YBI South/South Detour						
Capital Outlay Support	29.5	-	29.5	15.0	29.5	-
Capital Outlay Construction	131.9	-	131.9	32.3	133.7	1.8
TOTAL	161.4	-	161.4	47.3	163.2	1.8

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

YBI South/South Detour Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
YBI South / South Detour *	July 2007	-	July 2007	July 2007	-

** Contract schedule under assessment. See Contract Issues below.*

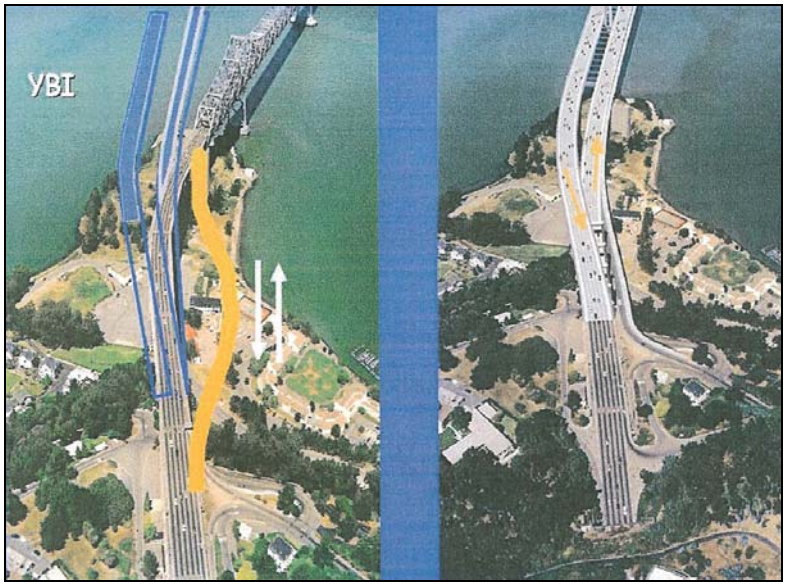
Contract Status: The contract is 38% complete as of March 20, 2006. To minimize impacts on the traveling public, portions of the East and West Tie-in field operations remain suspended with the exception of the work in the vicinity of Southgate road. The contract is performance based, whereby the contractor is responsible for both designing and constructing the detour structures. The contractor has formed and fully cast the columns at Bents 48 L/R, 49 L/R, 50 L/R and 51R and will continue to cast the remaining column segments at Bents 51R, 52L & 52R. Southgate Road has been reopened in one direction for traffic to proceed towards the lower deck Eastbound on-ramp. Caltrans is recommending design enhancements to the viaduct segment of the structure for improved seismic safety, and to allow the viaduct structure to stand alone, necessary due to a suspension of tie-in construction work. Final Design submittal for the West Tie-In is anticipated to be received in the near future for review and comment. Caltrans has completed review of and has rejected the East Tie-In (ETI) Final Superstructure design submittal. Due to the suspensions on the contract, the Contractor's structural steel fabricator is no longer able to accommodate this work on their schedule. As a result, the Contractor is negotiating to move the structural steel fabrication work to another shop.

Contract Issues:

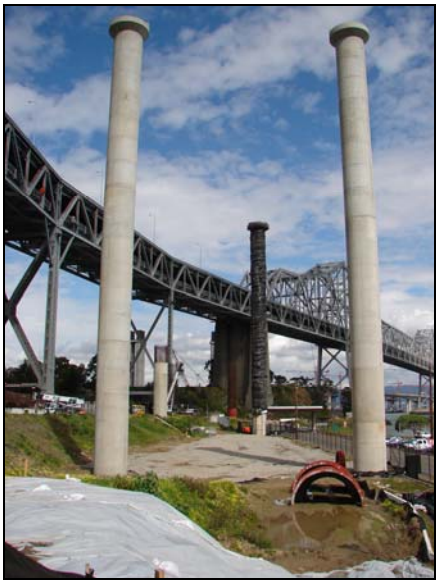
Issue	Mitigating Action
Delay to the SAS contract due to re-advertising and Addenda #5 and #7 to the SAS contract has impacts on the South/South Detour Contract.	CCO #24 included a contract time extension to July 1, 2007 in order to align the schedule for this contract with the schedule requirements on the SAS contract. As a result of the SAS completion being extended by 12 months due to Addenda #5 and #7, impact and mitigation options for this Contract are being evaluated.

Recent TBPOC Actions: None.

Contract Photographs



Temporary Bypass Structure (in yellow)



East View from Bent 50

Column Construction for SSD Viaduct

Viaduct portion of SSD

Toll Bridge Seismic Retrofit Program

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

OTHER MAJOR CONTRACTS

Contract Description: Caltrans is currently designing a number of other major construction contracts that will be necessary prior to opening the new east span, including the Oakland Touchdown and the YBI Transition Structure. Following opening of the new bridge, the existing bridge will be removed with the Bridge Demolition contract.

Other Major Contracts Cost Summary ($Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
A	b	c	d = b + c	E	f	g = f - d
Capital Outlay Support	238.8	-	238.8	32.9	256.5	17.7
Capital Outlay Construction						-
YBI Transition Structure	299.3	-	299.3	-	318.5	19.2
Oakland Touchdown	283.8	-	283.8	-	272.7	(11.1)
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	-	15.0	-
Total Capital Outlay Construction	837.3	-	837.3	-	828.2	(9.1)
TOTAL	1,076.1	-	1,076.1	32.9	1,084.7	8.6

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 (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)	% Comp.
Stormwater Treatment Measures	March 2008	-	March 2008	May 2007	(10)	100
YBI Transition Structure	November 2013	12	November 2014	November 2014	-	80
Oakland Touchdown	November 2013	12	November 2014	November 2014	-	TBD
Existing Bridge Demolition	September 2014	12	September 2015	September 2015	-	10

Contract Status:

Stormwater Treatment Measures: This contract to implement best practices for stormwater runoff treatment at the toll plaza area was advertised on January 9, 2006. Bids were opened on March 7, 2006. The lowest bidder on the project was Diablo Contractors (out of total 7 bids submitted). Contract was awarded on March 20, 2006. The current schedule forecast reflects the actual award date that was earlier than planned plus a reduced construction contract duration that was shown in the contractor's bid.

Oakland Touchdown: The TBPOC authorized Caltrans to split the Oakland Touchdown (OTD) into multiple contracts to accelerate work and to reduce the risk of any of this work impacting the critical path for the project. The first contract would construct all the marine foundation work and west-bound approach work earlier to keep

the work off the project's critical path and is forecast to be complete in October 2009. The second contract would construct the remaining east-bound approach when west-bound traffic is shifted onto the new SAS and is now scheduled to be complete in November 2014. The third contract would replace the existing submarine electrical cable from Oakland to Treasure Island and it is forecast to be completed in October 2007. It will be the first to be constructed to avoid possible construction conflicts. The fourth contract would incorporate most of the electrical elements from OTD as well as from other segments of the East Span into a single contract and is currently being scoped. Caltrans recently issued for review 95% Plans, Specifications and Engineer's Estimate (PS&E) documents for the Relocation of the Existing Submarine Cable. As a result of extending the SAS contract duration by 12 months, the Oakland Touchdown completion date has been extended by 12 months. The forecast $11.1 million decrease in construction costs on the Oakland Touchdown series of contracts from the approved budget reflects the result of the split of the OTD contract into multiple contracts to accelerate work and to reduce schedule risks. However, the capital outlay support for the contract was increased by $19.2 million to cover the additional work to split the contract and to administer four separate contracts over a longer duration rather than the original single contract. This COS impact is estimated at $17.7 million, and includes engineering, support and administration costs. Currently, these adjustments can be funded from contingencies in Other Budgeted Capital.

YBI Transition Structure: This contract is currently being designed by Caltrans. In February 2006, TBPOC authorized the split of the YBI contract into three contracts. The first contract will construct the mainline YBI transition structures (YBITS) and all work required to place traffic onto the new bridge. The second contract will include demolition of the South South Detour (SSD), completion of the new eastbound on-ramp and YBI restoration activities. Caltrans is initiating the design effort to split the contract documents. This contract was split to balance the time that traffic is placed on the South South Detour and overall corridor schedule risk, mitigate potential cost increases due to delays from other contracts, optimize the YBI contract durations and reduce cost risk for the SSD demolition by sequencing the contracts to allow SSD as-built plans to be incorporated into the YBITS contract documents. A third contract will include the YBI landscaping scope. The contract schedule completion date has been extended by 12 months due to a 12-month delay to the East Bound Open to Traffic date caused by the impact to the SAS contract completion due to SAS Addenda #5 and #7. The $19.2 million increase in construction costs on the YBITS contract from the approved budget reflects a higher estimate for electrical work and revised escalation costs due to the revised schedule.

Bridge Demolition: Design is 10% complete and currently on hold. 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.

Recent TBPOC Actions: In February 2006, the TBPOC authorized the split of the YBI contract into two contracts. In March 2006, the TBPOC approved the Plans, Specifications, and Estimate (PS&E) for the OTD Submarine Cable Contract.

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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	227.0	-	227.0	209.0	227.0	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.7	72.4	-
Capital Outlay Construction						-
SAS W2 Foundations	26.4	-	26.4	25.7	26.4	-
YBI/SAS Archeology	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	89.1	90.3	-
TOTAL	389.7	-	389.7	336.8	389.7	-

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.

Project Photographs

San Francisco-Oakland Bay Bridge Night View

San Francisco-Oakland Bay Bridge Aerial View

Completed W2 pier columns at the Yerba Buena Island, which will be the western support of the Self-Anchored Suspension (SAS) Structure

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 the 5th 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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
West Approach						
Capital Outlay Support	120.0	-	120.0	74.9	120.0	-
Capital Outlay Construction	309.0	-	309.0	186.0	309.0	-
TOTAL	429.0	-	429.0	260.9	429.0	-

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 (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
West Approach	August 2009	-	August 2009	August 2009	-

Project Status: Construction is 66% complete as of March 20, 2006, which includes mobilization expenses. Seismic retrofit construction is continuing throughout the project. Major ongoing work during March included substructure construction activities for the I-80 mainline structures, the 5th Street and Harrison Street off ramps, and the 4th Street retrofit work; and superstructure construction activities for Frame 7U (North).

Caltrans is continuing preparations for the demolition of Frame 8U (North), currently scheduled for early June 2006. Prior to the demolition, Caltrans will be opening a traffic bypass lane (split) for mainline I-80 traffic at the Fremont/Folsom Street off ramp that will maintain the existing number of through traffic lanes during the Frame 8U(North) demolition and reconstruction work. In early June 2006, the 1st and Essex Street on ramps to the lower deck will be closed throughout the weekends and the lower deck will be closed at night during the tendon cutting. Significant traffic congestion on I-80 and on local streets in downtown San Francisco is expected, however, Caltrans is working with BART to provide 24-hour transbay service and with 511 to disseminate information. Progress also continues on the development of the work plan for the demolition of Frames 7U (South) and 8U (South), tentatively scheduled for fall 2006.

Project Issues:

Issue	Mitigating Action
Ensuring the demolition of Frames 7U(S) and 8U(S) in fall 2006 in a way that optimizes schedule and minimizes impact to traffic.	The proposed demolition workplan and traffic management / closure plans were presented to the TBPOC in February 2006. See "Recent TBPOC Actions" below.

Recent TBPOC Actions: In February 2006, on the West Approach Project, the TBPOC approved a weekend closure option for the demolition of frames 7U and 8U (South) over a period of two full weekends in lieu of the six weekend partial lane closures currently called for in the contract. In March 2006, the TBPOC gave conceptual approval of the June 2006 communication plan developed to support the demolition of Frame 8U (North).

Project Photographs

4 Sections Frames 7U - 8U

West Approach 8U North

Interim Eastbound I-80: Stage 6 Detour (ST6D)

West Approach at 4th Street looking east.

West Approach Project Stages

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, the main channel fenders, and 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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSRB Seismic Retrofit						
Capital Outlay Support	134.0	-	134.0	124.9	127.0	(7.0)
Capital Outlay Construction	780.0	-	780.0	663.7	698.0	(82.0)
TOTAL	914.0	-	914.0	788.6	825.0	(89.0)

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. This issue is also discussed in the RM1 portion of the report on page 44.*

RSRB Seismic Retrofit Schedule Summary

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
RSRB Seismic Retrofit	August 2005	-	August 2005	October 2005	2

Project Status: Caltrans achieved seismic safety on the bridge in July 2005. Caltrans is expecting at least $89 million in savings from the AB 144 / SB 66 budget. The construction contract was completed and accepted on October 28, 2005 A Proposed Final Estimate was submitted to the contractor, who responded with no exceptions in December 2005. Caltrans is in the process of finalizing project plans and specifications for a public access lot on the Marin side of the bridge to comply with a Bay Conservation and Development Commission (BCDC) permit condition (see the exhibit on page 28). The Plans, Specifications and Estimate (PSE) for this scope have been submitted to the District Office Engineer for review and returned. Comments are now being incorporated for transmittal to the Headquarters Office Engineer.

Contract Issues:

Issue	Mitigating Action
The California Department of Fish and Game is making a presentation to the Caltrans Director and Caltrans District 4 Director to discuss impacts that pile driving conducted during the project had on aquatic species.	The cost forecast for this project has included a conservative allowance for the resolution of this issue.

Recent TBPOC Actions: None.


Richmond–San Rafael Bridge Seismic Retrofit
Existing rock slope protection to remain
Remove existing loose concrete
Install new rock slope protection
Picnic Table
Trash Receptacle
SAN FRANCISCO BAY
Parking
Install new rock slope protection
(reduced elevation at ESA)
Pedestrian Bridge
Environmentally Sensitive Area (ESA)
Bench (Typ)
Install new rock slope protection
Pedestrian Pathway
Existing rock slope
protection to remain
40m
11m
18m
Existing right of way
Existing
Bus Stop
Sidewalk
FRANCISCO BLVD
Rte 580 NB
Rte 580 SB
LEGEND
Landscape
Rock slope protection
Revised Exhibit A
Public Access Area
BCDC Mitigation – Permit No. 1-97, Amendment No. 3
April 6, 2006
0
20
40 Feet
SCALE
Caltrans
CT Ideas | DISTRICT 4 | AV MULTIMEDIA GRAPHICS SERVICES | 040606

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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	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	300.9	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	-
TOTAL	925.4	-	925.4	917.3	925.4	-

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 include allowances for minor project closeout costs.

Contract Issues: None.

Recent TBPOC Actions: None.

Toll Bridge Seismic Retrofit Program

Other Toll Bridges

Dumbarton and Antioch Bridges

The original design of the Dumbarton and Antioch Bridges were based on design criteria developed after the 1971 San Fernando Earthquake. In the early 1990's, Caltrans determined that these two structures had the seismic resistant features required by the post 1971 codes and were not likely to be vulnerable during a major seismic event. Since that time, Caltrans has pursued an aggressive seismic research program, and based on the results of this program, significantly revised its seismic design practice in the late 1990's. Consistent with recommendations by the Caltrans Seismic Advisory Board, Caltrans regularly reassesses the seismic hazard and performance of its bridges. Due to the tremendous changes in seismic design practice that have occurred since the design of the Dumbarton and Antioch bridges, a comprehensive assessment of the potential need and scope for seismic retrofit based on current knowledge is prudent.

Previous Reports

A number of limited studies have been made of these bridges in the past. However, none of the studies have fully assessed the seismic performance of the structures under current standards.

Vulnerability Studies

In late 2004, Caltrans initiated vulnerability studies on the Dumbarton and Antioch bridges. The purpose of these studies was to determine if the bridges would meet current seismic performance standards. The studies were essentially completed in May 2005. They were not a complete global analysis, but rather an investigation of selected bents modeled as independent structures. The analysis was limited in scope and based on as-built plans and currently available geotechnical information. The superstructure response was not analyzed.

The Dumbarton and Antioch Bridges have many seismic resistant features, and the results of the vulnerability studies indicate that the bridges should perform well in a moderate seismic event. However, during a major seismic event, some potential vulnerabilities (summarized below) become apparent.

- Foundation response generally governs performance. The piles may plunge axially and potentially cause permanent footing rotations.
- Potentially large foundation displacements and rotations may result in deformations that can't be easily repaired.
- The bent cap, pile cap, pile and superstructure are not capacity protected by the ductile columns and, as a result, these elements may be damaged in a major event, especially if the foundation is retrofitted.

Given the limitations of the studies, there was insufficient evidence to conclusively determine the performance of the bridges during a maximum credible earthquake (MCE). While the Dumbarton and Antioch bridges may meet performance standards, a more comprehensive technical study is necessary to understand the performance of these structures during an MCE event. A study of this level is necessary to accurately determine the structures' response and to develop any necessary retrofit strategies. A comprehensive geotechnical study using the latest analysis techniques is likely necessary in order to perform this level of analysis.

Sensitivity Analysis

As a follow-up to the Vulnerability Study, a sensitivity analysis was completed on a single representative bent used in the Vulnerability Study (Bent 23 of the Dumbarton Bridge). The goal of the analysis is to determine the structural response associated with uncertainties in the geotechnical data. An envelope of soil conditions (best-case and worst case scenarios) was used in the analysis. The results of the Sensitivity Analysis will be used to determine the scope and value of conducting further geotechnical studies.

The preliminary results from the Sensitivity Analysis indicate that the seismic response of the bridge is largely dependant on the soil conditions and that a comprehensive geotechnical investigation is essential for understanding the bridge's performance during a major seismic event. A work plan is being developed to assess the extent of geotechnical work needed for a complete seismic analysis and to assess the required performance levels for each structure. We are currently conducting a value analysis to scope the geotechnical investigation which will be required to complete the strategy. The value analysis report is estimated to be completed by the end of June, 2006.

Cost and Schedule

A preliminary cost estimate, schedule, and an initial risk analysis have been developed to complete a comprehensive seismic analysis for each bridge. The preliminary estimate and schedule were developed as a baseline assuming a complete geotechnical and geophysical investigation is required at each bridge.

The TBPOC will consider how to proceed with this comprehensive seismic analysis in the coming months, and will update the Legislature in the First Quarter report for 2006.

Antioch Bridge

Dumbarton Bridge

PROJECT / CONTRACT REPORTS

Regional Measure 1 Program

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 Trestle, Fender, and Deck Joint Rehabilitation Project

Richmond-San Rafael Bridge Trestle 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

Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

Project Description: The new Benicia-Martinez Bridge project constructs a new parallel bridge just east of the existing bridge. The project will include 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 (03/2006)	Cost To Date (032006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	157.1	21.1	178.2	147.2	178.2	-
Right-of-Way and Others	20.4	(0.1)	20.3	12.2	20.3	-
Capital Outlay						-
New Bridge	672.0	112.0	784.0	631.8	784.0	-
I-680/I-780 Interchange Replacement	76.3	16.1	92.4	70.6	92.4	-
I-680/Marina Vista Interchange Reconstruction	51.5	3.4	54.9	53.6	54.9	-
New Toll Plaza	24.3	2.0	26.3	19.0	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	28.1	-
Other	20.3	(1.3)	19.0	15.1	19.0	-
Project Reserve	20.8	39.0	59.8	-	59.8	-
TOTAL	1,059.9	203.1	1,263.0	949.5	1,263.0	-

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 (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	May 2006	1*
New Toll Plaza	June 2006	-	June 2006	August 2006	2
New Benicia-Martinez Bridge	December 2007	-	December 2007	December 2007	-
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	February 2008	2
Open to Traffic	December 2007	-	December 2007	December 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

**See page 41 for an explanation of change in schedule forecast.*

Project Status: All major construction projects necessary to open the bridge are currently in construction. Numerous foundation and superstructure issues have significantly delayed the new bridge contract. See the following contract detail pages for more information. Note that the remaining expenditures required on the "Right-of-Way and Others" category represents environmental permitting and mitigation. On December 21, 2005, BATA approved a budget increase resulting in a revised total of $1.263 billion.

Project Issues

Issue	Mitigating Action
To open the bridge, Caltrans will have to coordinate opening and close-out activities among the different contractors that will be active on the project. These activities including structural bridge and electrical tie-ins have been complicated by the delays to the new bridge. As identified in Caltrans Risk Management Plan, these delays also may further escalate support and material costs on the project.	Based on the Caltrans Risk Management Plan, BATA has budgeted a program contingency to fund these potential increases. Caltrans also is completing a comprehensive schedule of all activities necessary to open the new bridge to traffic. As necessary, Caltrans will be negotiating with their contractors to resolve any final opening and close-out activities to open the bridge.

Recent TBPOC Actions: See the following contract detail pages for more information.

Project Photographs

NE Corner View of the Toll Plaza

Toll Plaza Canopy and Operation Bldg NE view

Marina Vista Sign Post Installation

Marina Vista OH Sign Frame

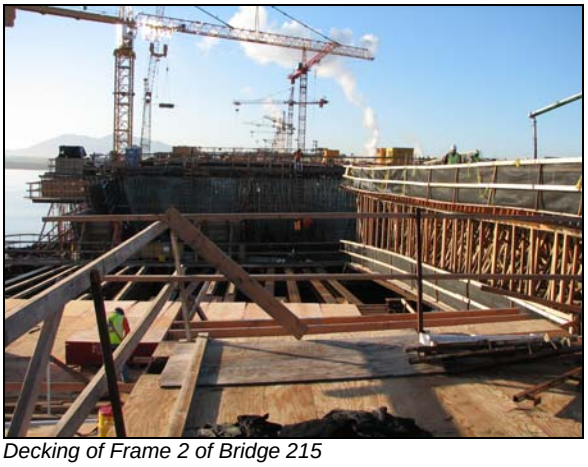
Project Photographs cont.

Decking of Span 17 of Bridge 215

Formed Deck and Stem Rebar at Bridge 215

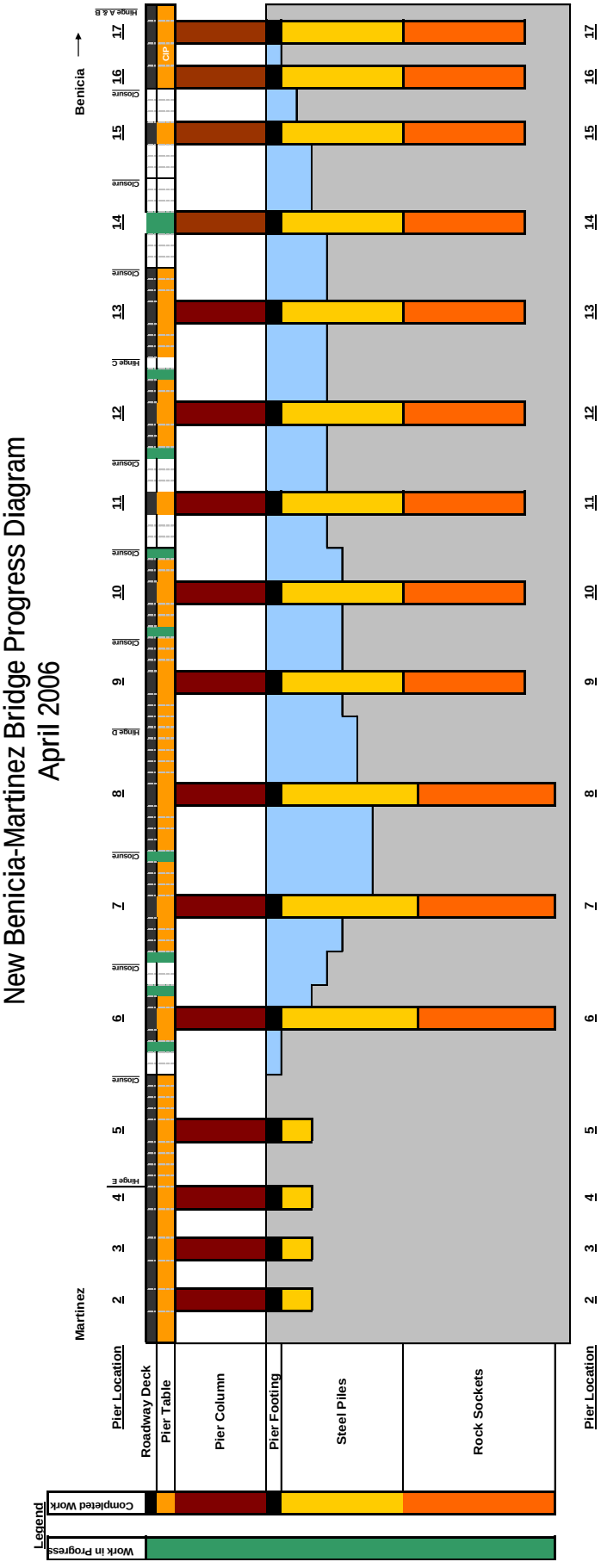
New Bridge alignment looking South

New Bridge Span looking North



Decking of Frame 2 of Bridge 215

Looking West at Bridge 212, and Bridge 211 Overhead


New Benicia-Martinez Bridge Progress Diagram
April 2006
Benicia
Martinez
Hinge A & B
Hinge C
Hinge D
Hinge E
Closure
CIP
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
Pier Location
Roadway Deck
Pier Table
Pier Column
Pier Footing
Steel Piles
Rock Sockets
Legend
Work in Progress
Completed Work

Regional Measure 1 Program

New Benicia-Martinez Bridge Project

NEW BENICIA-MARTINEZ BRIDGE CONTRACT

Contract Description: The new bridge contract constructs a new cast-in-place segmentally constructed reinforced concrete bridge just east of the existing bridge. The new bridge will carry five lanes of eastbound I-680 traffic towards Benicia.

New Benicia-Martinez Bridge Cost Summary ($Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
New Benicia-Martinez Bridge						
Capital Outlay Support	84.9	7.3	92.2	73.0	92.2	-
Capital Outlay Construction	672.0	112.0	784.0	631.8	784.0	-
TOTAL	756.9	119.3	876.2	704.8	876.2	-

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

New Benicia-Martinez Bridge Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
New Benicia-Martinez Bridge	December 2007	-	December 2007	December 2007	-

Contract Status: The contract is 78 % complete based on the current revised schedule. All substructure and column work has been completed. Superstructure work is continuing throughout the project. For the cast-in-place portion of the bridge over the straits (Frames 2 and 3), 10 of 11 of the pier tables have been completed with work remaining on Pier 14 and segment construction has been started or completed on 8 of 11 piers. Segment construction has been completed at Piers 5, 8, 9, and 13 and is on-going at Piers 6, 7, 10, and 12 using the reusable form travelers and at Pier 8 on temporary support platform along with the Hinge D installation Through March, 216 of 344 (63%) segments have been completed. In order to maintain concrete temperature within the specified limits, the contractor continues the installation of cooling tube in the segments and the use of nitrogen cooling. Hinge D, connecting Frames 2 and 3 between Piers 8 and 9, is being installed and scheduled to be completed by July 2006.

For the cast-on-falsework structures (Frames 1 and 4), work on Frame 4 on the south side of the straits is nearly complete, except for construction of Hinge E between Frames 3 and 4, corrective work on the deck surface around Pier 3, and other minor work. On Frame 1, work is continuing on installation of formwork, rebar, post-tensioning, and concrete on spans 15, 16, and 17.

Other on-going project work includes interior and exterior finish work at cantilever 5, 8 and 13, and concrete fender construction at Piers 8 and 9.

Contract Issues

Issue	Mitigating Action
Over the next seven months, construction of the first of two mid-span hinges (D and C) will occur. At the present time, there are no issues presently facing the project associated with hinge construction. However, these hinges represent a unique and complex element of the bridge construction. There are several areas of concern in the construction of this first hinge. Risk items include: superstructure alignment/geometry control, steel box girder alignment, rebar congestion, and bearing installation.	Over the last several months, meetings with the contractor and Caltrans staff were held to identify potential problem areas, as well as appropriate solutions to these issues should they occur. Also, the pedestal endpoints will be under continuous survey control and measurement to detect any trends in alignment and deflections. These actions will continue throughout the construction of the hinges.

Recent TBPOC Actions: None

Contract Photographs

Pier 14 Stem-Diaphragm Completed

Benicia Hinge Box

Frame 1 Falsework of New Bridge with the Bridge Alignment looking South

Concrete pouring at Bridge 212

Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

OTHER CONTRACTS AND RELATED PROJECT ACTIVITIES

Contract Description: Contracts related to the new Benicia-Martinez Bridge project involve the construction of a new toll plaza south of the new bridge in Contra Costa County with 17 toll booths, including two high-occupancy vehicle (HOV) bypass lanes, and the reconstruction of the I-680/Marina Vista Road and I-680/I-780 interchanges.

Other Contracts and Related Activities Cost Summary ($Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	72.2	13.8	86.0	74.2	86.0	-
Right-of-Way and Environmental Mitigation	20.4	(0.1)	20.3	12.2	20.3	-
Capital Outlay Construction						-
I-680/I-780 Interchange Replacement	76.3	16.1	92.4	70.6	92.4	-
I-680/Marina Vista Interchange Reconstruction	51.5	3.4	54.9	53.6	54.9	-
New Toll Plaza	24.3	2.0	26.3	19.0	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	28.1	-
Others	20.3	(1.3)	19.0	15.1	19.0	-
Total Capital Outlay Construction	189.6	31.1	220.7	158.3	220.7	-
TOTAL	282.2	44.8	327.0	244.7	327.0	-

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

Other Contracts and Related Activities Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	May 2006	1
New Toll Plaza	June 2006	-	June 2006	August 2006	2
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	February 2008	2
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

Contract Status:

Toll Plaza and Administration Building: The contract is 83 % complete based on contractor payment. The Contractor is continuing work throughout the toll plaza area, including installation of soffit light gauge metal, wiring installation for lights, signs, cameras and the ATCAS system, priming and painting of gate doors and frames, and weather-stripping finish work, all at the toll booths. The administration building has been significantly completed with minor miscellaneous work on finishes, concrete and electrical work continuing. Work is also on-going in the courtyard between the building and plaza and surrounding areas, including installation of irrigation and metal framing work. A number of notice of potential claim have been filed by the Contractor that remain to be resolved, pending substantiation from the Contractor, including liquidated damages due to the extended contract completion date.

I-680/I-780 Interchange: The contract is approximately 80% complete based on the current revised schedule. For the northbound I-680 connector from pier 17 of the new bridge (Bridge 215), substructure work including the foundations and columns have been completed. Currently, contractor has completed erection of falsework for Frame 2 and deck concrete in span 20 for bridge 215. For the northbound I-680 connector to westbound I-780 (Bridges 212 and 214), all foundations and columns have been completed. On the 212 bridge superstructure, work is at various stages of completion. This work includes removing of falsework at span 21 through 18, completing Abutment 22 backwall, and stressing of tendons of span 17. While new structures are scheduled to be opened to traffic in December 2007, final electrical work on the new bridge and the interchange will not be completed until after opening of the new bridge.

I-680/Marina Vista Interchange: The contract is approximately 98% complete based on the current revised schedule. Work is continuing to close out the contract. False work removal and demobilization off the job site has been completed. Exterior concrete Class 1 finish work on the soffit for the Mococo Overhead Bridge (OH) and retaining walls, including barrier rails on top of Retaining Wall # 1, are completed. The contractor also completed the hydro-seeding along the CCNB line embankment. Work is on-going with the pulling of conductor wires for the street and signal light at Mococo Rd., Waterfront Road, and the south approach to the new Mococo OH Bridge. Forecast completion has been delayed by one month due to unusually poor weather experienced during March 2006.

Wetland Mitigation: The contract is 100% complete. The Contract Completion Acceptance (CCA) has been submitted to Caltrans Headquarters for their approval on March 3, 2006. The Proposed Final Estimate (PFE) was prepared and issued to the Contractor for review and final acceptance.

Contract Issues

Issue	Mitigating Action
Lack of progress by the contractor on the Toll Plaza and Administration Building contract.	A Dispute Resolution Board (DRB) hearing was indefinitely postponed by the Contractor to resolve NOPC #39 concerning liquidated damages.
As noted in the project's risk management plan, the span 17 interface between the new bridge contractor and the I-680/I-780 interchange contractor may impact project cost and schedule. Delays on either contract will impact the opening of the bridge to traffic.	The I-680/I-780 contractor is expected to complete the span between the new bridge and the interchange. Caltrans is working with I-680/I-780 contractor to resolve final interface and scheduling issues resulting from the delayed completion of new bridge.

Recent TBPOC Actions: In February 2006, TBPOC approved CCO # 119 on the I-680/I-780 Interchange Contract (Schedule Mitigation Delay) with a cost impact of $3.6 million, mitigating 92 days of contract delay.

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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	124.4	-	124.4	115.5	125.4	1.0
Capital Outlay Construction						-
Replacement Bridge	253.3	-	253.3	253.1	256.3	3.0
South Interchange Reconstruction	73.9	-	73.9	71.8	73.9	-
Existing 1927 Bridge Demolition	35.2	-	35.2	18.1	35.2	-
Other	29.3	-	29.3	25.2	28.4	(0.9)
Project Reserve	12.1	-	12.1	-	9.0	(3.1)
TOTAL	528.2	-	528.2	483.7	528.2	-

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 (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
New Carquinez Bridge	November 2003*	-	November 2003*	November 2003*	-
1927 Carquinez Bridge Demolition	December 2007	(3)	September 2007	December 2007	3
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. The demolition contract to remove the 1927 bridge is approximately 38% complete based schedule. However, it is approximately 60% complete based on payment as the greatest pay items involved the 1958 bridge approach slab replacement, which has been completed. Traffic was switched back onto the 1958 bridge on November 10, 2005. Demolition of the 1927 bridge has started at Units 7 and 3 over the main shipping channels, with the deck and stringer removals. However, work was suspended, due to concern with the unanticipated buckling of eye bars. The contractor submitted and revised a modified deck removal plan for Unit 3 that was approved by Caltrans on February 23, 2006. Demolition work for Unit 3 has since resumed. Contractor completed removal of concrete deck on the southern half of the truss span of the bridge on March 9, 2006, and moved on to complete the northern half of Unit 7 on March 17, 2006. Lowering of the southern span occurred on April 25, 2006.

Project Issues:

Issue	Mitigating Action
On the Replacement Carquinez Bridge Contract, the Contractor has submitted claims for various contract issues, including claims on fabrication, labor, and access.	Caltrans is in the process of evaluating the merits of the final claims. BATA staff will direct BATA's consultant team to also evaluate the claims to determine project risk. Project reserves may need to be used.
Due to the suspension of approximately 3 months of work relative to the unanticipated buckling of eye bars during the demolition of unit 3 and 7, the schedule update currently shows project forecast completion of December 2007.	Caltrans is awaiting the Contactor to submit a Time Impact Analysis (TIA) that reflects the contractor delay to the overall schedule. Caltrans will then evaluate that TIA to establish a basis for negotiations.

Project Photographs

1958 Carquinez Bridge Approach New Deck Surface

Carquinez Bridge Demolition

Carquinez Bridge Demolition

Carquinez Bridge Demolition

Regional Measure 1 Program

Richmond-San Rafael Bridge (RSRB) Trestle, Fender, and Deck Joint Rehabilitation Project

Project Description: This contract involves replacing the western trestle section of the bridge near San Rafael, rehabilitating the ship collision fender system at various piers, and rehabilitation of joints on the bridge deck.

RSRB Trestle, Fender, and Deck Joint Rehabilitation Cost Summary ($Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSR Trestle, Fender, and Joint Rehabilitation						
Capital Outlay Support	10.8	-	10.8	11.8	12.6	1.8
Capital Outlay Construction	91.3	-	91.3	85.0	84.5	(6.8)
Project Reserve	-	-	-	-	-	-
TOTAL	102.1	-	102.1	96.8	97.1	(5.0)

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

The Deck Joint Rehabilitation work is funded from RM1 and from Toll Bridge Seismic Retrofit Program ($16.9 million) funds. In July 2005, BATA rescinded $16.9 million in RM1 funds from the deck joint project. An equivalent amount of seismic retrofit funding will be used on the project. This action was taken to make additional RM 1 funds available for the Benicia-Martinez Bridge New Span project. The budget for the Richmond-San Rafael Bridge Seismic Retrofit project, shown on page 27 of this report, includes $16.9 million of costs for the deck joint rehabilitation work.

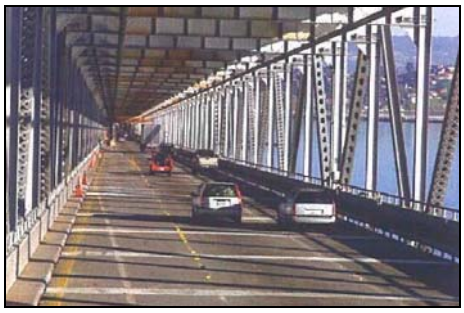
RSRB Trestle, Fender, and Deck Joint Rehabilitation Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation	August 2005	-	August 2005	August 2005	-

Project Status: Work on this project is completed.

Project Issues: None

Project Photographs



Repaired Deck Joints-Lower Deck

Richmond-San Rafael Trestle

Regional Measure 1 Program

Richmond-San Rafael Bridge (RSRB) Deck Overlay Project

Project Description: Rehabilitate the existing concrete deck on the bridge, damaged due to traffic and exposure to a marine environment.

RSRB Deck Overlay Cost Summary ($Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSR Deck Overlay						
Capital Outlay Support	8.0	(3.5)	4.5	1.7	4.5	-
Capital Outlay Construction	16.9	3.6	20.5	-	20.5	-
TOTAL	24.9	0.1	25.0	1.7	25.0	-

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

RSRB Deck Overlay Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	January 2007	-	January 2007	April 2007	3

Project Status: Funding for this project was approved by BATA on February 22, 2006. The PS&E package for this project has been completed by Caltrans and reviewed by BAMC staff and is now scheduled to be advertised on March 13, 2006. Bid opening is scheduled for April 26, 2006. An addendum was issued on April 12, 2006 to cover repair of joints.

Project Issues:

Issue	Mitigating Action
Caltrans has reported a higher than budgeted estimate for the construction of the project.	BATA staff has reviewed the revised estimate for the project and has made a recommendation to BATA. The shorter construction duration will allow support funding to be shifted to construction funding.

Project Photographs

RSR Concrete Deck Overlay

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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	B	c	d = b + c	e	f	g = f - d
I-880/SR-92 Interchange Improvement						
Capital Outlay Support	28.8	-	28.8	27.7	43.2	14.4
Capital Outlay Construction	94.8	-	94.8	-	119.0	24.2
Capital Outlay Right-of-Way	9.9	-	9.9	7.5	13.0	3.1
Project Reserve	0.3	-	0.3	-	11.1	10.8
TOTAL	133.8	-	133.8	35.2	186.3	52.5

Note: Details may not sum to totals due to rounding effects. $9.6 million in ACTA funds included under Capital Outlay Construction. $3.7 million included in Capital Outlay Construction 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 (03/2006)	Contract Complete Schedule Forecast (03/2006)	Schedule Variance (Months)
I-880/SR-92 Interchange Reconstruction	November 2010	-	November 2010	June 2011	7

Project Status: Design is 95% complete. Caltrans continues work on the preparation of the PS&E package with 100% completion re-scheduled from March 1, 2006 to June 1, 2006. Contract package is scheduled to be advertised by February 2007 and start of construction in June 2007. Design work is being delayed further due to resolution of utility conflicts, and design and construction staging refinements. Additional PG&E utility easements have been identified for the relocation of the six utility poles near Lindenwood Way. PG&E is in contact with City of Hayward to determine if overhead relocation along the front of Lindenwood Way is allowable while concurrently pursuing the option to relocate utility poles in the backyards to minimize schedule delay. Work to relocate the utilities to an underground alignment is proceeding at Lindenwoods. Caltrans continues to be in close contact with the utility companies to resolve any conflicts. Wetland mitigation will revert back on-site since mitigation bank will not be in place by the time construction begins. Right-of-way acquisition is in progress. With the addition of the new easements, the right of way parcel count is now at 81 parcels. Of these, right of way from 59 parcels has been acquired.

Project Issues:

Issue	Mitigating Action
The forecast schedule included an aggressive schedule for right-of-way acquisition that provided for 18 months to clear numerous parcels in the project area. Additional time will be required to negotiate with parcel owners and the railroad complete property acquisition.	Delays in right-of-way acquisitions are impacting the advertisement and construction of the project. BATA and Caltrans are reviewing methods to accelerate the right-of-way procurement and begin the project. Also, the construction contract will be advertised with an A+B specification, which could reduce the construction duration and partially recover the project schedule.

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, and (d) Modify the U.S. 101/University Avenue interchange.

Other Completed RM1 Projects Cost Summary ($Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
San Mateo-Hayward Bridge Widening Project	217.8	-	217.8	208.6	211.9	(5.9)
Bayfront Expressway Widening Project	35.3	-	35.3	33.1	34.9	(0.4)
Richmond Parkway Project	5.9	-	5.9	3.9	5.9	-
U.S. 101/University Interchange	3.8	-	3.8	3.7	3.8	-
TOTAL	262.8	-	262.8	249.3	256.5	(6.3)

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

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

Project Issues: None.

This Page Intentionally Left Blank

APPENDICES

** Cost forecasts shown herein are as of March 31, 2006. 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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h =g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project							
East Span - Skyway	**01202X**						
Capital Outlay Support		197.0	-	197.0	133.3	197.0	-
Capital Outlay Construction		1,293.0	-	1,293.0	999.9	1,293.0	-
Total		1,490.0	-	1,490.0	1,133.2	1,490.0	-
East Span - SAS Superstructure	**0120FX**						
Capital Outlay Support		214.6	-	214.6	19.3	214.6	-
Capital Outlay Construction		1,753.7	-	1,753.7	-	1,767.4	13.7
Total		1,968.3	-	1,968.3	19.3	1,982.0	13.7
East Span - SAS E2/T1 Foundations	**0120EX**						-
Capital Outlay Support		52.5	-	52.5	9.4	52.5	-
Capital Outlay Construction		313.5	-	313.5	100.6	313.5	-
Total		366.0	-	366.0	110.0	366.0	-
SAS W2 Foundations	**0120CX**						
Capital Outlay Support		10.0	-	10.0	9.2	10.0	-
Capital Outlay Construction		26.4	-	26.4	25.7	26.4	-
Total		36.4	-	36.4	34.9	36.4	-
YBI Transition Structures	**0120PX**						
Capital Outlay Support		78.7	-	78.7	8.5	78.7	-
Capital Outlay Construction		299.3	-	299.3	-	318.5	19.2
Total		378.0	-	378.0	8.5	397.2	19.2
Oakland Touchdown	**01204X**						
Capital Outlay Support		74.4	-	74.4	19.9	92.1	17.7
Capital Outlay Construction		283.8	-	283.8	-	272.7	(11.1)
Total		358.2	-	358.2	19.9	364.8	6.6
YBI South/South Detour	**0120RX**						
Capital Outlay Support		29.5	-	29.5	15.0	29.5	-
Capital Outlay Construction		131.9	-	131.9	32.3	133.7	1.8
Total		161.4	-	161.4	47.3	163.2	1.8
Existing Bridge Demolition	**01209X**						
Capital Outlay Support		79.7	-	79.7	0.2	79.7	-
Capital Outlay Construction		239.2	-	239.2	-	222.0	(17.2)
Total		318.9	-	318.9	0.2	301.7	(17.2)
YBI/SAS Archeology	**01207X**						
Capital Outlay Support		1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction		1.1	-	1.1	1.1	1.1	-
Total		2.2	-	2.2	2.2	2.2	-

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.)

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h =g - e
YBI - USCG Road Relocation	**0120QX**						
Capital Outlay Support		3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction		3.0	-	3.0	2.8	3.0	-
Total		6.0	-	6.0	5.5	6.0	-
YBI - Substation and Viaduct	**0120GX**						
Capital Outlay Support		6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction		11.6	-	11.6	11.3	11.6	-
Total		18.1	-	18.1	17.7	18.1	-
Oakland Geofill	**01205X**						-
Capital Outlay Support		2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction		8.2	-	8.2	8.2	8.2	-
Total		10.7	-	10.7	10.7	10.7	-
Pile Installation Demonstration Project	**01208X**						
Capital Outlay Support		1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction		9.2	-	9.2	9.2	9.2	-
Total		11.0	-	11.0	11.0	11.0	-
Stormwater Treatment Measures	**0120JX**						
Capital Outlay Support		6.0	-	6.0	4.3	6.0	-
Capital Outlay Construction		15.0	-	15.0	-	15.0	-
Total		21.0	-	21.0	4.3	21.0	-
Right-of-Way and Environmental Mitigation	**0120X9**						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay & Right-of-Way		72.4	-	72.4	38.7	72.4	-
Total		72.4	-	72.4	38.7	72.4	-
Sunk Cost - Existing East Span Retrofit	**04343X & 04300X**						
Capital Outlay Support		39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction		30.8	-	30.8	30.8	30.8	-
Total		70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support							
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	-	20.0	3.2	20.0	-
Total		162.6	-	162.6	145.8	162.6	-
Subtotal Capital Outlay Support		959.4	-	959.4	418.9	977.1	17.7
Subtotal Capital Outlay Construction		4,492.1	-	4,492.1	1,260.6	4,498.5	6.0
Other Budgeted Capital		35.1	-	35.1	-	11.0	(24.1)
Total SFOBB East Span Replacement Project		**5,486.6**	**-**	**5,486.6**	**1,679.5**	**5,486.6**	**-**

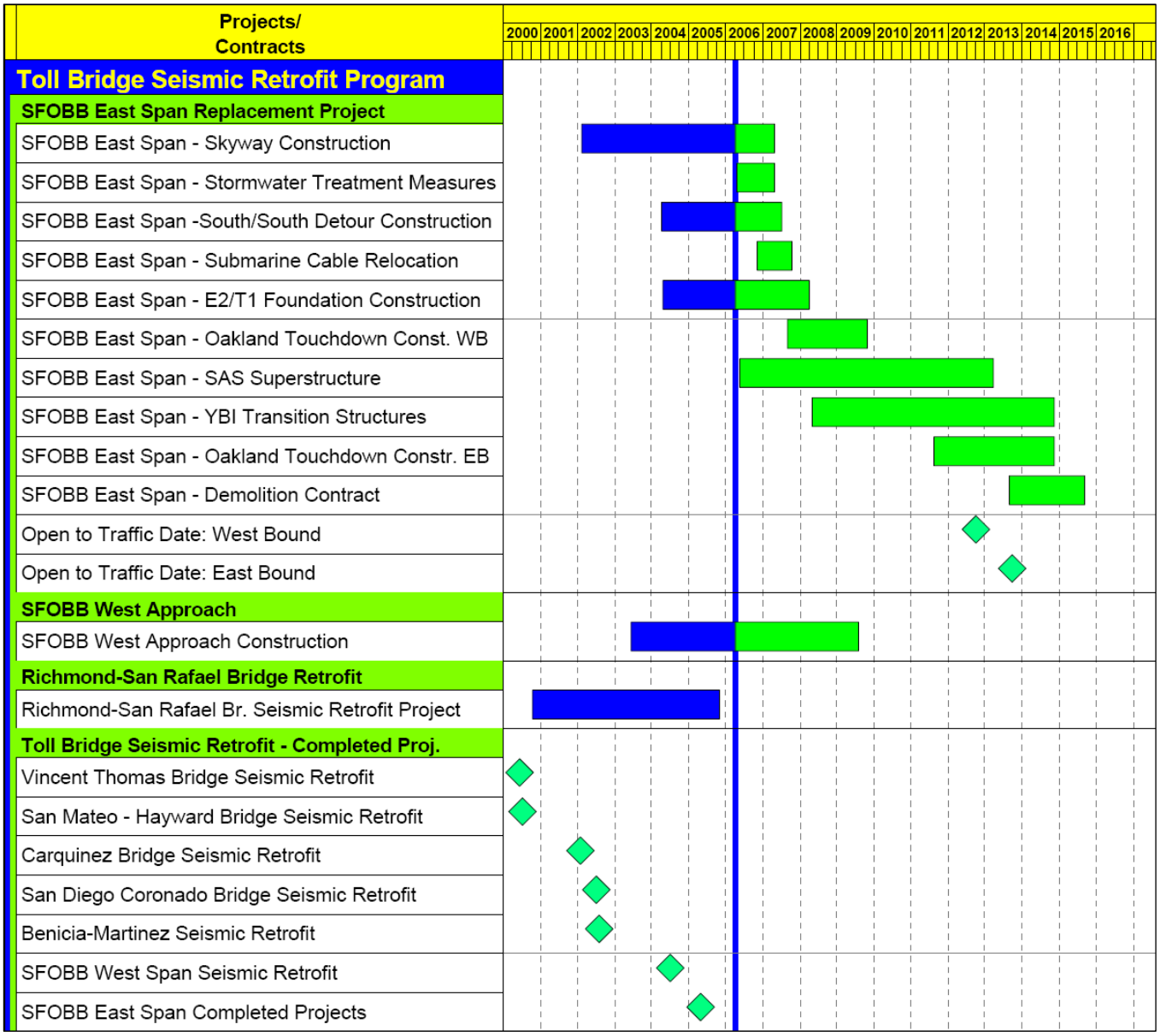
Note: Details may not sum to totals due to rounding effects.

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

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.4	-	959.4	418.9	977.1	17.7
Capital Outlay Construction	4,492.1	-	4,492.1	1,260.6	4,498.5	6.4
Other Budgeted Capital	35.1	-	35.1	-	11.0	(24.1)
Total	5,486.6	-	5,486.6	1,679.5	5,486.6	-
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	-	120.0	74.9	120.0	-
Capital Outlay Construction	309.0	-	309.0	186.0	309.0	-
Total	429.0	-	429.0	260.9	429.0	-
SFOBB West Span Retrofit						-
Capital Outlay Support	75.0	-	75.0	74.7	75.0	-
Capital Outlay Construction	232.9	-	232.9	226.2	232.9	-
Total	307.9	-	307.9	300.9	307.9	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	-	134.0	124.9	127.0	(7.0)
Capital Outlay Construction	780.0	-	780.0	663.7	698.0	(82.0)
Total	914.0	-	914.0	788.6	825.0	(89.0)
Benicia-Martinez Bridge Retrofit						-
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.4	85.5	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Bridge Retrofit						-
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
Total	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
Total	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
Total	103.5	-	103.5	102.6	103.5	-
Subtotal Capital Outlay Support	1,433.2	-	1,433.2	838.0	1,443.9	10.7
Subtotal Capital Outlay	6,286.7	-	6,286.7	2,808.3	6,211.1	(75.6)
Subtotal Other Budgeted Capital	35.1	-	35.1	-	11.0	(24.0)
Miscellaneous Program Costs	30.0	-	30.0	25.6	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	-	7,785.0	3,671.9	7,696.0	(89.0)
Program Contingency	900.0	-	900.0	-	989.0	89.0
Total Toll Bridge Seismic Retrofit Program	**8,685.0**	**-**	**8,685.0**	**3,671.9**	**8,685.0**	**-**

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 (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h =g - e
New Benicia-Martinez Bridge Project							
New Bridge	**00603_**						
Capital Outlay Support		84.9	7.3	92.2	73.0	92.2	-
Capital Outlay Construction				-			-
BATA Funding		661.9	112.0	773.9	617.9	773.9	-
Non-BATA Funding		10.1	-	10.1	13.9	10.1	-
Subtotal		672.0	112.0	784.0	631.8	784.0	-
Total		756.9	119.3	876.2	704.8	876.2	-
I-680/I-780 Interchange Reconstruction	**00606_**						
Capital Outlay Support							
BATA Funding		24.9	2.0	26.9	26.2	26.9	-
Non-BATA Funding		1.4	5.1	6.5	5.6	6.5	-
Subtotal		26.3	7.1	33.4	31.8	33.4	-
Capital Outlay Construction							
BATA Funding		54.7	16.1	70.8	55.2	70.8	-
Non-BATA Funding		21.6	-	21.6	15.4	21.6	-
Subtotal		76.3	16.1	92.4	70.6	92.4	-
Total		102.6	23.2	125.8	102.4	125.8	-
I-680/Marina Vista Interchange Reconstruction	**00605_**						
Capital Outlay Support		18.3	1.2	19.5	19.3	19.5	-
Capital Outlay Construction		51.5	3.4	54.9	53.6	54.9	-
Total		69.8	4.6	74.4	72.9	74.4	-
New Toll Plaza and Administration Building	**00604_**						
Capital Outlay Support		11.9	2.4	14.3	13.9	14.3	-
Capital Outlay Construction		24.3	2.0	26.3	19.0	26.3	-
Total		36.2	4.4	40.6	32.9	40.6	-
Existing Bridge & Interchange Modifications	**0060A_**						
Capital Outlay Support		4.3	5.7	10.0	3.0	10.0	-
Capital Outlay Construction		17.2	10.9	28.1	-	28.1	-
Total		21.5	16.6	38.1	3.0	38.1	-
Other Contracts	**See note below**						
Capital Outlay Support		11.4	(2.6)	8.8	6.2	8.8	-
Capital Outlay Construction		20.3	(1.3)	19.0	15.1	19.0	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.2	20.3	-
Total		52.1	(4.0)	48.1	33.5	48.1	-
Subtotal BATA Capital Outlay Support		155.7	16.0	171.7	141.6	171.7	-
Subtotal BATA Capital Outlay Construction		829.9	143.1	973.0	760.8	973.0	-
Subtotal Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.2	20.3	-
Subtotal Non-BATA Capital Outlay Support		1.4	5.1	6.5	5.6	6.5	-
Subtotal Non-BATA Capital Outlay Construction		31.7	-	31.7	29.3	31.7	-
Project Reserves		20.8	39.0	59.8	-	59.8	-
Total New Benicia-Martinez Bridge Project		**1,059.9**	**203.1**	**1,263.0**	**949.5**	**1,263.0**	**-**

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

Appendix D: Regional Measure 1 Program Cost Detail ($Millions) (Cont.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h =g - e
Carquinez Bridge Replacement Project							
New Bridge	**01301_**						
Capital Outlay Support		60.5	-	60.5	59.9	62.3	1.8
Capital Outlay Construction		253.3	-	253.3	253.1	256.3	3.0
Total		313.8	-	313.8	313.0	318.6	4.8
Crockett Interchange Reconstruction	**01305_**						
Capital Outlay Support		32.0	-	32.0	31.9	32.0	-
Capital Outlay Construction		73.9	-	73.9	71.8	73.9	-
Total		105.9	-	105.9	103.7	105.9	-
Existing 1927 Bridge Demolition	**01309_**						
Capital Outlay Support		16.1	-	16.1	9.2	16.1	-
Capital Outlay Construction		35.2	-	35.2	18.1	35.2	-
Total		51.3	-	51.3	27.3	51.3	-
Other Contracts	**See note below**						
Capital Outlay Support		15.8	-	15.8	14.5	15.0	(0.8)
Capital Outlay Construction		18.8	-	18.8	15.3	17.9	(0.9)
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
Total		45.1	-	45.1	39.7	43.4	(1.7)
Subtotal BATA Capital Outlay Support		124.4	-	124.4	115.5	125.4	1.0
Subtotal BATA Capital Outlay Construction		381.2	-	381.2	358.3	383.3	2.1
Subtotal Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
Project Reserves		12.1	-	12.1	-	9.0	(3.1)
Total Carquinez Bridge Replacement Project		**528.2**	**-**	**528.2**	**483.7**	**528.2**	**-**

Notes: **Other Contracts includes EA's 01302_, 01303_, 01304_, 01306_, 01307_, 01308_, 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.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (03/2006)	Cost To Date (03/2006)	Cost Forecast (03/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h =g - e
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation	**See note [1] 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	51.6	51.1	-
Subtotal		91.3	-	91.3	85.0	84.5	(6.8)
Project Reserves		-	-	-	-	-	-
Total		102.1	-	102.1	96.8	97.1	(5.0)
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	**0415U_**						
Capital Outlay Support							
BATA Funding		4.0	0.5	4.5	1.7	4.5	-
Non-BATA Funding		4.0	(4.0)	-	-	-	-
Subtotal		8.0	(3.5)	4.5	1.7	4.5	-
Capital Outlay Construction		16.9	3.6	20.5	-	20.5	-
Project Reserves		0.1	(0.1)	-	-	-	-
Total		25.0	-	25.0	1.7	25.0	-
Richmond Parkway Project (RM 1 Share Only)	**Non-Caltrans**						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		5.9	-	5.9	3.9	5.9	-
Total		5.9	-	5.9	3.9	5.9	-
San Mateo-Hayward Bridge Widening	**See note [2] below**						
Capital Outlay Support		34.6	-	34.6	34.1	34.6	-
Capital Outlay Construction		180.2	-	180.2	174.0	176.2	(4.0)
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves		1.5	-	1.5	-	0.5	(1.0)
Total		217.8	-	217.8	208.6	211.9	(5.9)
I-880/SR-92 Interchange Reconstruction	**EA's 23317_, 01601_, and 01602_**						
Capital Outlay Support		28.8	-	28.8	27.7	43.2	14.4
Capital Outlay Construction							
BATA Funding		85.2	-	85.2	-	109.4	24.2
Non-BATA Funding		9.6	-	9.6	-	9.6	-
Subtotal		94.8	-	94.8	-	119.0	24.2
Capital Outlay Right-of-Way		9.9	-	9.9	7.5	13.0	3.1
Project Reserves		0.3	-	0.3	-	11.1	10.8
Total		133.8	-	133.8	35.2	186.3	52.5
Bayfront Expressway Widening	**EA's 00487_, 01511_, and 01512_**						
Capital Outlay Support		8.6	-	8.6	8.1	8.2	(0.4)
Capital Outlay Construction		26.5	-	26.5	24.8	26.5	-
Project Reserves		0.2	-	0.2	0.2	0.2	-
Total		35.3	-	35.3	33.1	34.9	(0.4)
US 101/University Avenue Interchange Modification	**Non-Caltrans**						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		3.8	-	3.8	3.7	3.8	-
Total		3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support		358.3	16.5	374.8	330.1	389.8	15.0
Subtotal BATA Capital Outlay Construction		1,569.8	146.7	1,716.5	1,358.9	1,732.0	15.5
Subtotal Capital Outlay Right-of-Way		42.3	(0.1)	42.2	30.1	44.4	2.2
Subtotal Non-BATA Capital Outlay Support		14.0	1.1	15.1	16.0	16.9	1.8
Subtotal Non-BATA Capital Outlay Construction		92.4	-	92.4	80.9	92.4	-
Project Reserves		35.0	38.9	73.9	0.2	80.6	6.7
Total RM1 Program		**2,111.8**	**203.1**	**2,314.9**	**1,816.2**	**2,356.1**	**41.2**

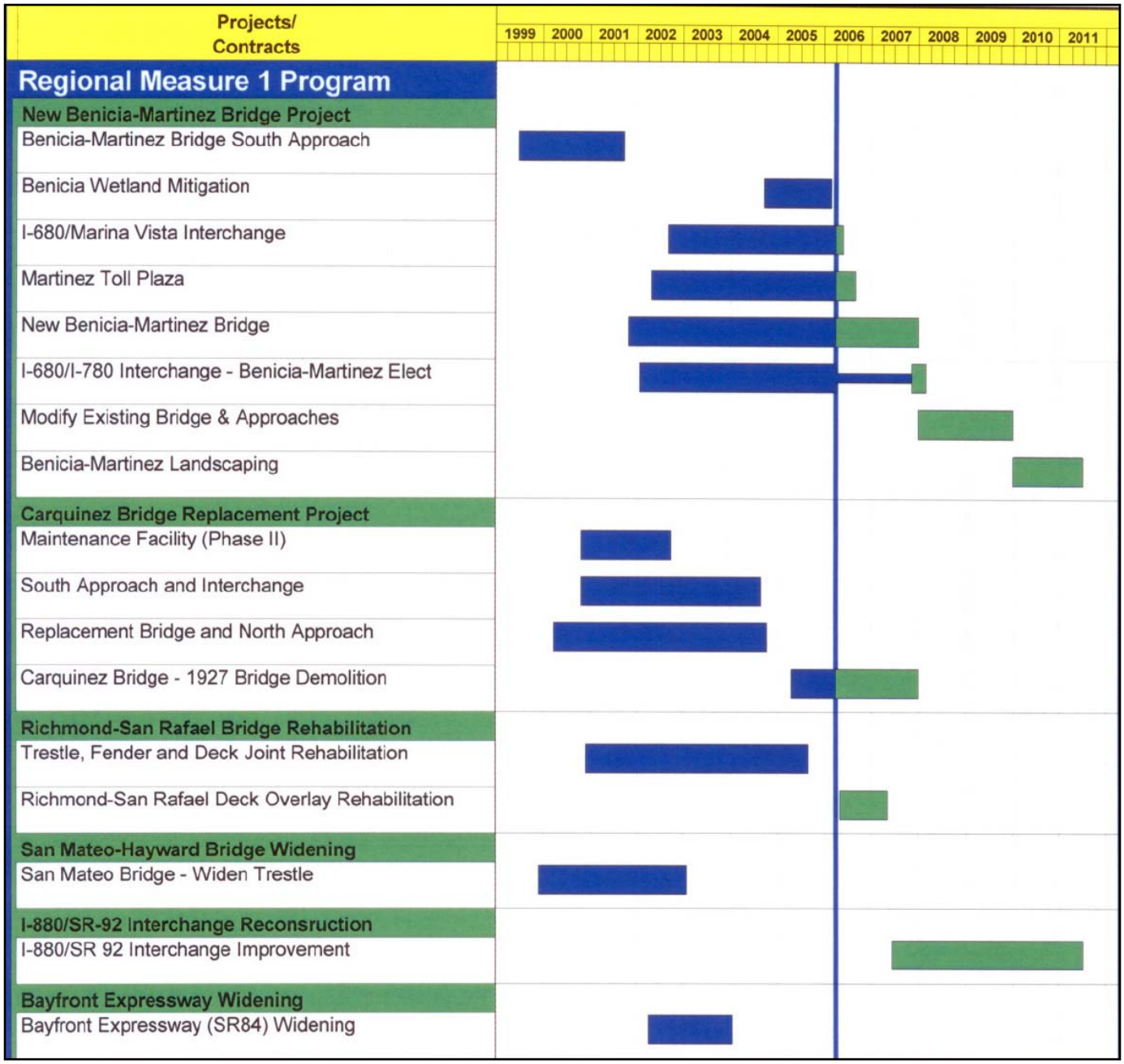
Notes:

[1] Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U_ and 04157_

[2] 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



Appendix F: Glossary of Terms

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.

APPROVED CHANGES: changes to the AB144/SB 66 Budget or June 2005 BATA Budget as approved by the Bay Area Toll Authority Commission.

AT COMPLETION VARIANCE or VARIANCE (cost): the mathematical difference between the Estimate at Completion and the Current Budget.

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

CURRENT BUDGET: the sum of the AB144/SB66 Budget or June 2005 BATA Budget and Approved Changes.

ESTIMATE AT COMPLETION: 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.

JUNE 2005 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.

PROJECT COMPLETE AB144/SB 66 BASELINE or BASELINE PROJECT (or CONTRACT) COMPLETION DATE: the planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

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

PROJECT COMPLETE FORECAST or FORECAST PROJECT (or CONTRACT) COMPLETION DATE: 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 Forecast Completion Date and the Baseline Completion Date.

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.

This Page Intentionally Left Blank