

# Toll Bridge Seismic Retrofit Program Report



## TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

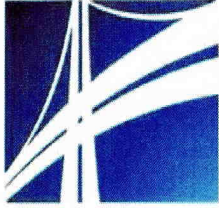
CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION



**First Quarter Report**

March 31, 2007





# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Toll Bridge Program Oversight Committee  
Department of Transportation  
Office of the Director  
1120 N Street  
P.O. Box 942873  
Sacramento, CA 94273-0001

May 15, 2007

Mr. Gregory Schmidt  
Secretary of the Senate  
State Capital, Room 3044  
Sacramento, CA 95814

Mr. E. Dotson Wilson  
Chief Clerk of the Assembly  
State Capital, Room 3196  
Sacramento, CA 95814

Dear Messrs. Schmidt and Wilson:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2007 First Quarter "Toll Bridge Seismic Retrofit Program Report," prepared pursuant to California Streets and Highways Code Section 30952.2. The First Quarter report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through March 31, 2007.

California Streets and Highways Code Section 30952.1 established the TBPOC to exercise project oversight and control over the Toll Bridge Seismic Retrofit Program. The TBPOC is comprised of the Director of the Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission (CTC). The TBPOC's program oversight and control activities include review and approval of contract bid documents, review and resolution of project issues, evaluation and approval of project change orders and claims, and the issuance of monthly and quarterly program progress reports. The TBPOC is committed to providing the Legislature with comprehensive and timely reporting on the Toll Bridge Seismic Retrofit Program.

Gregory Schmidt  
E. Dotson Wilson  
May 15, 2007  
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In addition to oversight responsibilities over the Toll Bridge Seismic Retrofit Program, the TBPOC also oversees the delivery of the New Benicia-Martinez Bridge Project. The TBPOC is pleased to report that the \$1.2 billion Regional Measure 1 Toll Bridge Program project is nearly complete and expected to be opened to traffic by the end of August 2007.

If there are any questions or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,



WILL KEMPTON

Director  
California Department of  
Transportation  
Chair, TBPOC



STEVE HEMINGER  
Executive Director  
Bay Area Toll Authority



JOHN F. BARNA, JR.

Executive Director  
California Transportation Commission



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Toll Bridge Program Oversight Committee  
Department of Transportation  
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Sacramento, CA 94273-0001

May 15, 2007

Mr. James C. Ghielmetti, Chair  
California Transportation Commission  
1120 N Street, Room 2221  
Sacramento, CA 95814

Mr. John Chalker, Vice-Chair  
California Transportation Commission  
1120 N Street, Room 2221  
Sacramento, CA 95814

Dear Commissioners Ghielmetti and Chalker:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2007 First Quarter "Toll Bridge Seismic Retrofit Program Report," prepared pursuant to California Streets and Highways Code Section 30952.2. The First Quarter report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through March 31, 2007.

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James C. Ghielmetti  
John Chalker  
May 15, 2007  
Page 2

In addition to oversight responsibilities over the Toll Bridge Seismic Retrofit Program, the TBPOC also oversees overseeing the delivery of the New Benicia-Martinez Bridge Project, a Regional Measure 1 Toll Bridge Program Project. The TBPOC is pleased to report that the \$1.2 billion Regional Measure 1 Toll Bridge Program project is nearly complete and expected to be opened to traffic by the end of August 2007.

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Sincerely,



WILL KEMPTON

Director

California Department of  
Transportation

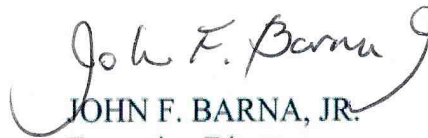
Chair, TBPOC



STEVE HEMINGER

Executive Director

Bay Area Toll Authority



JOHN F. BARNA, JR.

Executive Director

California Transportation Commission

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## Executive Summary

The Toll Bridge Program Oversight Committee (TBPOC) submits the 2007 First Quarter Report ending March 31, 2007, for the Toll Bridge Seismic Retrofit Program (TBSRP) in accordance with Assembly Bill (AB) 144 and Senate Bill (SB) 66. This report provides the following:

1. Information on the progress of each project in the program.
2. Baseline budget for Capital Outlay (CO) and Capital Outlay Support (COS).
3. Current projected costs for CO and COS.
4. Expenditures to date.
5. Comparison of the baseline schedule to the March 2007 projected schedule.
6. Summary of the milestones achieved during the quarter.
7. Major risk assessment for the remaining projects.
8. Summary of expenses incurred by the TBPOC in performing its duties.

### Major Milestones During the First Quarter 2007

Significant progress on the completion of the seismic retrofit projects continued during this past quarter. Only one of the seven toll bridges in the TBSRP remains to be retrofitted. Appendix D includes a gallery of photos of construction activities on the bridge projects. The major milestones achieved during the quarter include:

- The San Francisco-Oakland Bay Bridge (SFOBB) West Approach Project is 77 percent complete as of March 20, 2007 and is on schedule to finish in August 2009. Frame 8U achieved a significant milestone by having both the north and south sections of the frame transversely stressed together into one complete structural unit. Major ongoing work during the quarter includes the continuation of work on the 5<sup>th</sup> Street and Harrison Street ramps. On March 27, 2007, eastbound Interstate 80 (I-80) traffic was detoured onto an interim eastbound alignment (ST6D). The detour realigned

eastbound traffic below the new westbound lanes of the approach to allow for the demolition of the final 3000-foot section of the old I-80 freeway structure from 2nd Street (near the Historic Clocktower) to 4th Street. Demolition began soon after the traffic was detoured and is being performed under a compressed schedule from the as-planned 110 days down to 17 days. The demolition work will be completed in mid-April. The compressed schedule has been implemented to minimize impacts and inconvenience to the local residents and businesses. An extensive public outreach began well in advance of this work and includes all of the upcoming impacts from future activities.

- The SFOBB East Span Seismic Replacement Project Skyway contract is expected to be completed in December 2007. The final segment closure pour was completed in February 2007. Remaining work includes fabrication and installation of the remaining hinge pipe beams, post-tensioning of the bridge segments and spans, installation of bicycle/pedestrian pathway, erection of the electrical service platforms, and other finish and punch list work.



SFOBB Skyway – West End



- The SFOBB East Span Seismic Replacement Project Self-Anchored Suspension (SAS) Marine Foundation East Pier and Tower Pier (E2/T1) contract is on schedule to be completed by March 2008. At the East Pier (E2), foundation pile driving has been completed. E2 footing frames are now being welded to the piles. At the Tower Pier (T1), all steel foundation casings and rock sockets have been installed. The basketball court sized T1 footing box was lowered over the casings in March 2007. Work is now progressing in preparation of the T1 bottom slab concrete placement.
- For the SFOBB East Span Seismic Replacement Project SAS Superstructure contract, American Bridge/Flour (ABF), the prime contractor for the project, has mobilized staff to their field offices at Pier 7 in Oakland and in China. Development of various administrative and design submittals is continuing. A final baseline schedule has been accepted by Caltrans. The contractor continues to finalize agreements with manufacturers, fabricators, suppliers and subcontractors. A contract with Zhenhua Port Machinery Company (ZPMC), of Shanghai, China, to supply and fabricate all the major steel structures in SAS including the tower, orthotropic box girders, and bike paths, was executed on July 18, 2006. Since executing their contact with ABF, ZPMC is currently setting up their shop to begin fabrication of the SAS tower and deck sections. ZPMC has prepared initial test mockups of the bridge sections and is finalizing welding and testing procedures for fabrication. Production fabrication is scheduled to begin in the fall of 2007 as final shop drawing submittals are approved.
- For the SFOBB East Span Seismic Replacement Project Yerba Buena Island South-South Detour (SSD) contract, Caltrans is designing the East and West tie-ins from the existing bridge and tunnel to the detour structure. The construction of the tie-ins are being managed by Caltrans to be completed in conjunction with the SAS

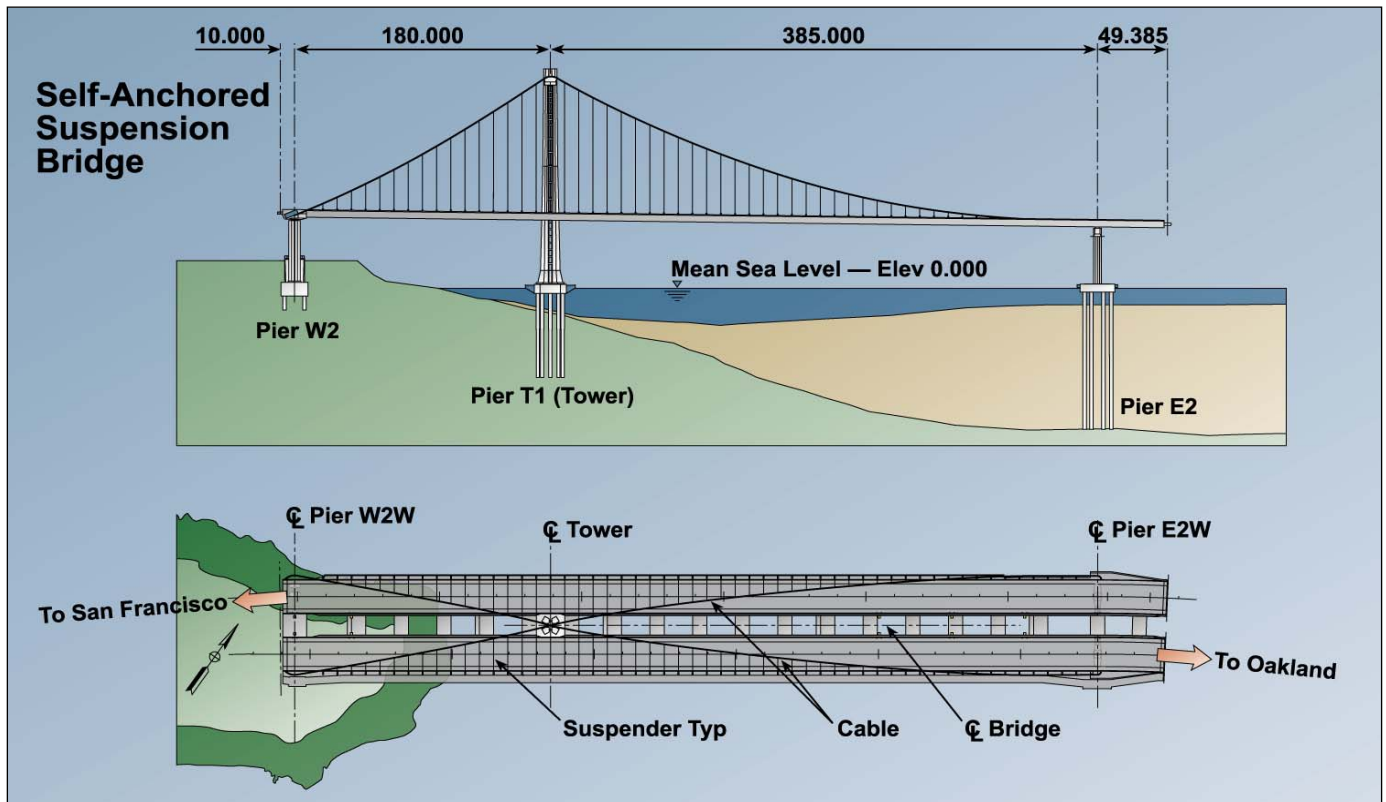
schedule to minimize impacts to the traveling public. Construction has also begun on advanced Yerba Buena Island Transition Structures (YBITS) foundation work. Foundations for Pier W3L were completed in the last quarter.

- The SFOBB East Span Seismic Replacement Project Oakland Touchdown (OTD) Submarine Cable contract was approved by Caltrans on January 11, 2007. The contract will replace the existing submerged electrical cable from Oakland to Treasure Island. The contractor is currently preparing contract submittals for Caltrans review and has placed an order for the cabling.
- The SFOBB East Span Seismic Replacement Project OTD #1 contract was advertised on February 26, 2007 with a planned bid opening of June 5, 2007. This contract will construct the westbound approach structure from the toll plaza to the new Skyway and a significant portion of the eastbound approach structure. The contract is scheduled to be completed in October 2009.



South South Detour

- In March 2007, the TBPOC approved a number of changes to the Yerba Buena Island South-South Detour (SSD) contract to better integrate the detour work into the current project schedule and to reduce overall project risks by advancing Yerba Buena Island Transition Structures (YBITS) foundation work into the SSD contract. These changes increased the SSD contract budget by \$202.5 million and decreased the YBITS contract by \$23.2 million. The net project increase will be funded from the existing program contingency and does not change the overall Toll Bridge Seismic Retrofit Program budget.



SFOBB East Span SAS Project

## Program Overview

Seven of the nine state-owned toll bridges were identified for seismic retrofit in the TBSRP:

1. Benicia-Martinez Bridge
2. Carquinez Bridge
3. San Mateo-Hayward Bridge
4. Vincent Thomas Bridge
5. San Diego-Coronado Bridge
6. Richmond-San Rafael Bridge
7. SFOBB (west span, west approach replacement, and east span replacement).

Seismic retrofit of these complex structures presents an extremely difficult engineering challenge and nowhere in the world has a bridge seismic safety program of this size been undertaken. Although the Dumbarton and the Antioch bridges were not included in the program, Caltrans is continuing to work on seismic vulnerability studies to assess the

potential for necessary retrofit work on these structures. See discussion on page 28.

As shown in *Table 1-TBSRP Project Status*, a significant portion of the TBSRP is complete. Only the SFOBB west approach and new east span seismic replacement projects remain to be seismically retrofitted.

The First Quarter 2007 forecast for those projects indicates that they will be completed within the current TBPOC approved cost and schedule estimates. *Tables 2 and 3* provide a summary of the cost, schedule, and status of all the TBSRP projects.

**Table 1-TBSRP Project Status**

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
Carquinez Bridge Eastbound Seismic Retrofit	Complete
Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

**Table 2-Toll Bridge Seismic Retrofit Program—Cost Summary (\$Millions)**

Project	Work Status	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2007)	Actual Cost To Date (03/2007)	1sr Quarter 2007 Forecast	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>SFOBB East Span Replacement Project</b>								
Capital Outlay Support		959.4	-	959.4	487.6	977.1	17.7	●
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	1,140.5	1,293.0	-	●
SAS E2/T1 Foundations	Construction	313.5	-	313.5	203.6	313.5	-	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	260.4	1,767.4	13.7	●
YBI South/South Detour	Design/Const	131.9	202.5	334.4	45.8	334.4	-	●
YBI Transition Structures	Design	299.3	(23.2)	276.1	-	276.1	-	●
Oakland Touchdown (OTD)		283.8	-	283.8	-	302.5	18.7	
* OTD Submarine Cable	Pending Award				-	9.6	-	●
* OTD No. 1 (Westbound)	Design				-	226.5	-	●
* OTD No. 2 (Eastbound)	Design				-	62.0	-	●
* OTD Electrical Systems	Design				-	4.4	-	●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Construction	15.0	-	15.0	8.8	15.0	-	●
East Span Completed Projects		90.3	-	90.3	89.2	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.8	72.4	-	●
Other Budgeted Capital		35.1	-	35.1	0.6	11.0	(24.1)	
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,275.3</b>	<b>5,674.7</b>	<b>8.9</b>	
<b>SFOBB West Approach Replacement</b>	Construction							●
Capital Outlay Support		120.0	-	120.0	90.6	120.0	-	
Capital Outlay Construction		309.0	-	309.0	232.5	309.0	-	
<b>Total SFOBB West Approach Replacement</b>		<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>323.1</b>	<b>429.0</b>	<b>-</b>	
<b>Richmond-San Rafael Bridge Retrofit</b>	Construction							●
Capital Outlay Support		134.0	(7.0)	127.0	126.0	127.0	-	
Capital Outlay Construction & Right-of-Way		780.0	(82.0)	698.0	665.8	698.0	-	
<b>Total Richmond-San Rafael Bridge Retrofit</b>		<b>914.0</b>	<b>(89.0)</b>	<b>825.0</b>	<b>791.8</b>	<b>825.0</b>	<b>-</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.1	705.6	-	
<b>Total Program Completed Projects</b>		<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.5</b>	<b>925.4</b>	<b>-</b>	
<b>Miscellaneous Program Costs</b>		30.0	-	30.0	24.7	30.0	-	
<b>Program Contingency</b>		900.0	(90.2)	809.8	-	800.9	(8.9)	
<b>Total Toll Bridge Seismic Retrofit Program</b>		<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>4,332.4</b>	<b>8,685.0</b>	<b>-</b>	

● Within Approved Schedule and Budget  
 ● Potential Cost and Schedule Impacts: Likely 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.

**Table 3-Toll Bridge Seismic Retrofit Program—Schedule Summary**

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (03/2007)	Project Complete Schedule Forecast (03/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d= b + c	e	f = e - d	g	h
<b>SFOBB East Span Replacement Project</b>							
Skyway	Apr 07	8	Dec 07	Dec 07	-	●	
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	See Note.
YBI South/South Detour	Jul 07	36	Jun 10	Jun 10	-	●	
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.
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	
• OTD Submarine Cable	n/a		Jan 08	Jan 08	-	●	This contract was approved on January 11, 2007.
• OTD Westbound	n/a		Jul 09	Oct 09	3	●	Contract has been advertised with a bid opening planned on June 5, 2007
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	See Note.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	See Note.
Stormwater Treatment Measures	Mar 08	-	Mar 08	Jun 07	(9)	●	Forecast based on actual award date and duration in Contractor's A+B bid.
Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	●	See Note.
Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	●	See Note.
<b>SFOBB West Approach Replacement</b>	Aug 09	-	Aug 09	Aug 09	-	●	
<b>Richmond-San Rafael Bridge</b>							
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of this contract on October 28, 2005. \$89 million has been transferred to Program Contingency.
• Public Access Project	n/a	-	May 07	Sep 07	4	●	

*Note: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB 144/SB 66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract in response to bidder inquiries and to reduce costs.*

## Program Costs

### Baseline and Projected Budget

The 2005 AB 144/SB 66 baseline budget is \$7.785 billion for CO and COS plus \$900 million in program contingency, for a total baseline budget of \$8.685 billion. The First Quarter 2007 forecast for the program remains within the \$8.685 billion budget. The First Quarter 2007 forecast for the SFOBB East Span Project has increased to \$5.675 billion due to a revised construction cost estimate on the OTD #1 and YBI SSD contracts.

Additional cost estimate and expenditure detail for the TBSRP are included in Appendices A-1 and A-2. The details of the cost estimates and expenditures for the SFOBB east span are shown in Appendix B

**Table 4-Toll Bridge Seismic Retrofit Program Baseline (AB 144/SB 66) And Forecasts (\$ million)**

Contracts	AB 144 / SB 66 Baseline Budget	Approved Changes	Current Approved Budget	1st Quarter 2007 Forecast	Variance (1Q07 - Current Approved Budget)
<b>Completed Projects</b>					
Benicia-Martinez	177.8	-	177.8	177.8	-
Carquinez	114.2	-	114.2	114.2	-
San Mateo-Hayward	163.5	-	163.5	163.5	-
Vincent Thomas	58.5	-	58.5	58.5	-
San Diego-Coronado	103.5	-	103.5	103.5	-
SFOBB West Span	307.9	-	307.9	307.9	-
<b>Ongoing Projects</b>					
Richmond-San Rafael	914.0	(89.0)	825.0	825.0	-
SFOBB West Approach	429.0	-	429.0	429.0	-
SFOBB East Span	5,486.6	179.2	5,665.8	5,674.7	8.9
Miscellaneous Program Costs	30.0	-	30.0	30.0	-
<b>Subtotal</b>	<b>7,785.0</b>	<b>90.2</b>	<b>7,875.2</b>	<b>7,884.1</b>	<b>8.9</b>
Program Contingency	900.0	(90.2)	809.8	800.9	(8.9)
<b>Total Program</b>	<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>-</b>

# Program Schedule

## Baseline and Projected Schedule

Seismic retrofit on six of the seven toll bridges in the TBSRP is complete. These structures include the Benicia-Martinez, Carquinez, Richmond-San Rafael, San Mateo-Hayward, Vincent Thomas, and San Diego-Coronado bridges. Seismic retrofiting of the SFOBB west span was completed in June 2004. The SFOBB West Approach and East Span Seismic Replacement projects are currently under construction. The current March 2007 schedule calls for achieving seismic safety and opening to traffic the SFOBB new east span in 2013.

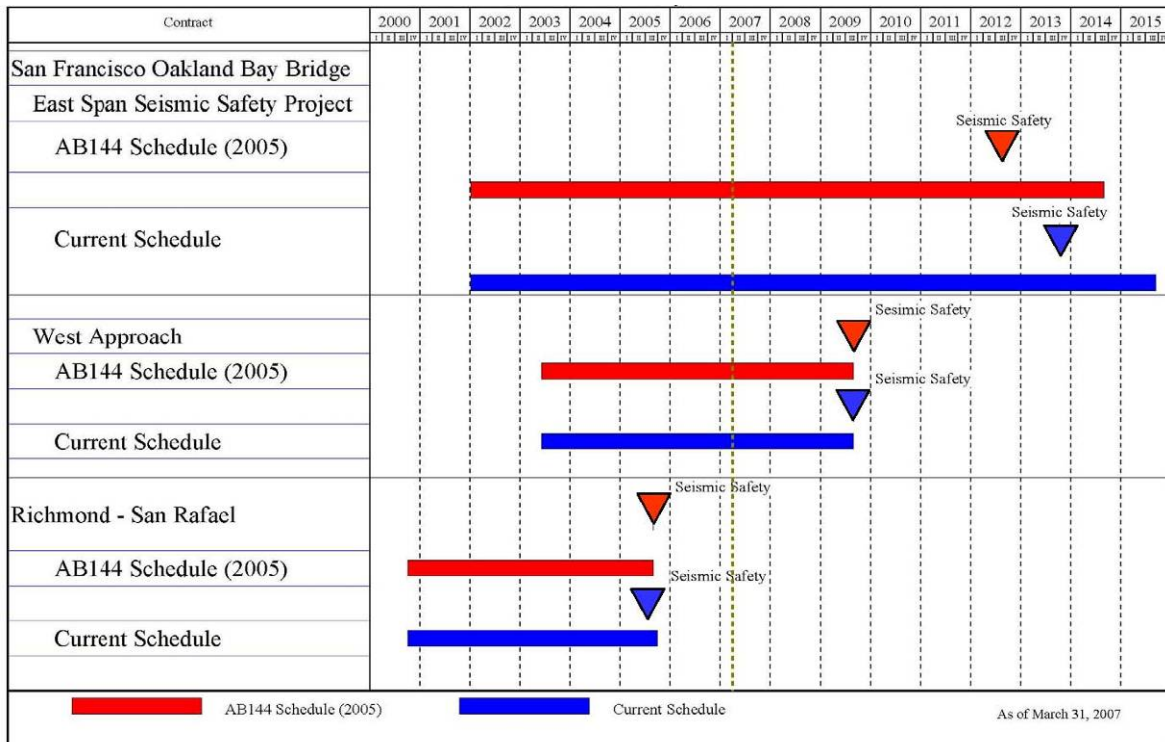
The 12 months of schedule extension was granted by addendum to the SFOBB East Span Seismic Replacement Project SAS contract based on bidder inquiries received during advertisements. While the 12 month schedule extension for the SAS has also extended the schedules for YBITS and OTD

contracts accordingly, Caltrans is scheduling the contracts to accommodate the possibility of early SAS completion-based incentives also included in the SAS addendum.

On the SSD contract, the TPBOC has approved a forecast completion extension to 2010 to reduce overall program risks by advancing work from the YBITS contracts into the SSD contract. The extension will not impact the open-to-traffic date for the new east span and facilitate possibilities to accelerate opening of the new bridge.

It is estimated that all of the construction activities for the SFOBB East Span Seismic Replacement project will be completed by 2015, marked by the planned demolition of the existing SFOBB east span. *Chart 1-Toll Bridge Seismic Retrofit Program Schedule*, shows the baseline, AB 144/ SB 66 project schedule versus the projected completion schedules for the TBSRP projects under construction.

**Chart 1-Toll Bridge Seismic Retrofit Program Schedule  
Baseline AB 144/SB 66 vs. Projected Schedule**



# Program Funding and Financing

AB 144 established a funding level of \$8.685 billion for the TBSRP. The bill specifies funding sources for the program, as shown in *Table 5-Program Budget*.

**Table 5-Program Budget as of March 31, 2007 (\$ Millions)**

	<b>Budgeted</b>	<b>Funding Available &amp; Contributions</b>
<b>Financing</b>		
Seismic Surcharge Revenue AB 1171	2,282.0	2,282.0
Seismic Surcharge Revenue AB 144	2,150.0	2,150.0
<u>BATA Consolidation</u>	<u>820.0</u>	<u>820.0</u>
<b>Subtotal - Financing</b>	<b>5,252.0</b>	<b>5,252.0</b>
<b>Contributions</b>		
Proposition 192	790.0	789.0
San Diego Coronado Toll Bridge Revenue Fund	33.0	33.0
Vincent Thomas Bridge	15.0	6.9
State Highway Account <sup>(1)(2)</sup>	745.0	745.0
Public Transportation Account <sup>(1)(3)</sup>	130.0	90.0
ITIP/SHOPP/Federal Contingency	448.0	0.0
Federal Highway Bridge Replacement and Rehabilitation (HBRR)	642.0	500.0
SHA - East Span Demolition	300.0	
SHA - "Efficiency Savings" <sup>(4)</sup>	130.0	2.0
Redirect Spillover	125.0	
<u>Motor Vehicle Account</u>	<u>75.0</u>	<u>75.0</u>
<b>Subtotal - Contributions</b>	<b>3,433.0</b>	<b>2,240.9</b>
<b>Total Funding</b>	<b>8,685.0</b>	<b>7,492.9</b>
<b>Allocated to date</b>		<b>6,071.9</b>
<b>Remaining Unallocated</b>		<b>1,421.0</b>
<p><sup>(1)</sup> The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.</p> <p><sup>(2)</sup> To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.</p> <p><sup>(3)</sup> To date, \$90 million has been transferred from the PTA to the TBSRP, including the full \$80 million transfer scheduled by the CTC to occur in 2005-06. Approximately \$40 million remains to be transferred. Caltrans anticipates transfer of such balance in Fiscal Year 2006-07 as directed by the California Transportation Commission.</p> <p><sup>(4)</sup> To date, \$2 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" for 2005-06 identified under AB 144. Approximately \$128 million remains to be distributed as scheduled by the CTC.</p> <p><b>Notes:</b> Program budget includes \$900 million program contingency.</p>		



## Funding Status

The program's financial status of revenues and expenditures is summarized in the table below, *Table 6-Toll Bridge Seismic Retrofit Program Financial Status*. The figures include the surcharge revenues collected, transfers from the SHA and the

PTA, and expenditures from the Toll Bridge Seismic Retrofit Account (TBSRA) and the Seismic Retrofit Bond Act of 1996 (Proposition 192).

**Table 6-Toll Bridge Seismic Retrofit Program Financial Status  
as of March 31, 2007 (\$ Millions)**

<b>Revenues:</b>		
Toll Surcharge <sup>(1)</sup>		687.9
SMIF Interest		97.9
Bond Revenue (Seismic Bond of 1996)		789.0
Bond Revenue (Toll Revenue Bonds)		1,062.0
Commercial Paper <sup>(2)</sup>		80.0
SANDAG		33.0
Vincent Thomas <sup>(3)</sup>		6.9
Federal Highway Bridge Replacement and Rehabilitation		500.0
<b>Transfers to TBSRA:</b>		
Motor Vehicle Account		75.0
State Highway Account <sup>(4)</sup>		745.0
Public Transportation Account <sup>(5)</sup>		90.0
State Highway Account "Efficiency Savings" <sup>(6)</sup>		2.0
	Total Revenues and Transfers	<b>4,168.7</b>
<b>Expenditures:</b>		
Capital Outlay		3,384.1
State Operations		948.3
	Total Expenditures	<b>4,332.4</b>
<b>Encumbrances:</b>		
Capital Outlay		1,732.2
State Operations		7.3
	Total Encumbrances	<b>1,739.5</b>
<b>Total Expenditures and Encumbrances</b>		<b>6,071.9</b>
<p>(1) The Toll Surcharge is dedicated to repayment of bonds beginning September 1, 2003. Toll Surcharge shown here is only toll revenue collected prior to that date.</p>		
<p>(2) \$80 Million in Commercial Paper issued on or about April 5, 2005.</p>		
<p>(3) No additional funding is expected from the Vincent Thomas Toll Revenue Account.</p>		
<p>(4) To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.</p>		
<p>(5) To date, \$90 million has been transferred from the PTA to the TBSRP, including the full \$80 million transfer scheduled by the CTC to occur in 2005-06. Approximately \$40 million remains to be transferred. Caltrans anticipates transfer of such balance in 2006-07 as directed by the California Transportation Commission.</p>		
<p>(6) To date, \$2 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" for 2005-06 identified under AB 144. Approximately \$128 million remains to be distributed as scheduled by the CTC.</p>		

## Program Financing

As discussed above, AB 144 consolidated the administration of all toll revenues collected on the state-owned Bay Area toll bridges and financing of the TBSRP under the jurisdiction of BATA. BATA has direct programmatic responsibilities for the administration of all toll revenues collected on the state-owned bridges in the Bay Area and responsibilities for financial management of the TBSRP program, including:

- Administrative responsibility for collection and accounting of all toll revenues.
- Authorization to increase tolls on the state-owned bridges by \$1.00, effective January 1, 2007.
- Project level toll-setting authority as necessary to cover additional cost increases beyond the funded program contingency in order to complete the TBSRP.
- Assumption of funding all of the roadway and bridge structure maintenance from Caltrans once bridge seismic retrofit projects are completed.

In accordance with its responsibilities provided under the law, in September 2005, BATA adopted a finance plan for the TBSRP. The major components of the finance plan include:

- Issuing \$6.2 billion in debt, including defeasance of \$1.5 billion in outstanding State Infrastructure Bank bonds and commercial paper.
- Increasing tolls on the state-owned bridges by \$1.00, (from \$3.00 to \$4.00 for two-axle vehicles), effective January 1, 2007.
- Securing the maximum amount of state funding early in the construction schedule to most efficiently use toll funds (see the following discussion concerning the CTC funding schedule).
- Locking in current interest rates to the extent possible in order to improve the chances that the entire toll program construction and the operations and maintenance can be delivered within the \$4.00 auto toll level.

In September 2005, BATA approved a Finance Plan for the TBSRP and other toll bridge improvement programs dependent on toll revenues from the state-owned bridges. The finance plan called for \$6.2 billion in new debt issuances, including defeasance of the existing outstanding I-Bank bonds. Consistent with the finance plan, in December 2005, BATA approved the issuance of up to \$1.0 billion of 2006 toll bridge revenue bonds in February 2006. The bond issuance will provide adequate cash flow to fund the SAS contract for the East Span Replacement project, which was awarded on May 3, 2006.

Furthermore, in March 2006, BATA approved the issuance of \$1.2 billion in bonds to defease the I-Bank bonds approved in October 2005. Additionally, pursuant to the law, BATA held two public hearings, one in October and one in November 2005, to receive public testimony regarding the proposed \$1.00 seismic surcharge toll increase beginning on January 1, 2007 on the state-owned toll bridges in the Bay Area. BATA approved the toll increase on January 25, 2006.

Pursuant to AB 144, on September 29, 2005, the CTC adopted a schedule - revised in December 2005 - for the transfer of state funds to BATA to fund the TBSRP. The schedule contains the timing and sources of the state contributions, which begin in Fiscal Year (FY) 2005-06 and distributes the contributions over the years of project construction to ensure a timely balance between state sources and the contributions from toll funds. In December 2005, the CTC re-adopted the schedule to reflect opportunities to maximize the use of available PTA funds and correct prior transfer transactions. The CTC's December 2005 revised schedule for the transfer of funds allows BATA to pledge the state fund contribution to the financing of the TBSRP per BATA's adopted finance plan. The CTC schedule is included in Appendix C.

In March 2007, BATA approved the issuance of \$825 million in 2007 Toll Bridge Revenue Bonds. The financing will be used primarily to fund seismic retrofit projects. Upon issuance of the 2007 bonds, BATA's debt total will be \$4.9 billion.



Aerial view of West Approach

## Project Status

### Ongoing Construction Projects

#### SFOBB West Approach

The SFOBB west approach seismic retrofit project will remove and replace the west approach to the SFOBB, which includes all of the westbound mainline and most of the eastbound mainline from 4<sup>th</sup> Street to the SFOBB west anchorage, and all of the connecting entrances and exit ramps in downtown San Francisco. The construction work, which began in June 2003, is approximately 77 percent complete. Completion of this project is scheduled for 2009.

Upon completion of the retrofit project, the west approach mainline and ramps will have the same number of traffic lanes as before, but with improved highway geometrics. The mainline eastbound and westbound structures will be adjacent to each other at 4<sup>th</sup> Street and transition to a double-deck configuration with their own independent support system from Rincon Hill to the anchorage in order to tie into the existing SFOBB.

### Milestones Achieved

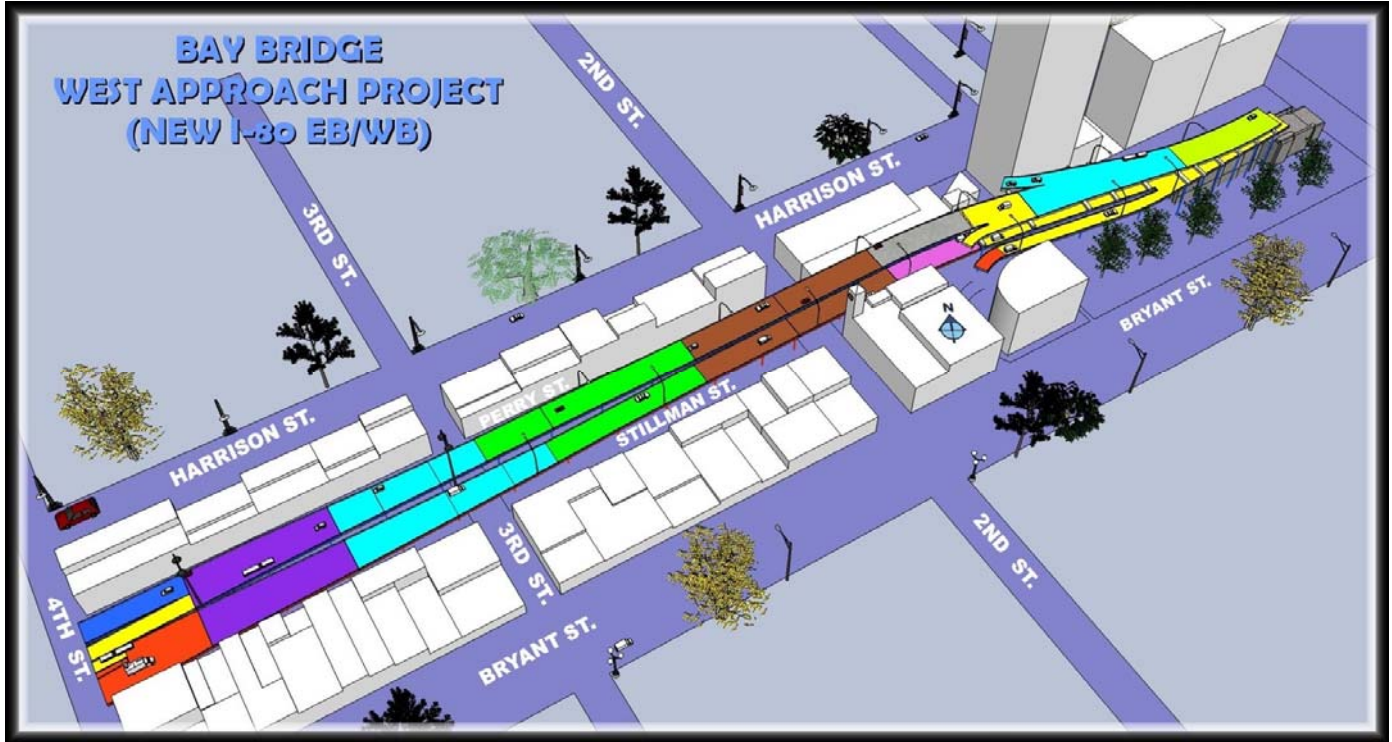
The San Francisco-Oakland Bay Bridge (SFOBB) West Approach Project is 77 percent complete as of March 20, 2007 and is on schedule to finish in August 2009. Frame 8U achieved a significant milestone by having both the north and south sections transversely stressed together into one complete structural unit. Major ongoing work during the quarter includes the continuation of work on the 5<sup>th</sup> Street and Harrison Street ramps. On March 27, 2007, eastbound Interstate 80 (I-80) traffic was detoured onto an interim eastbound alignment (ST6D). The detour realigned eastbound traffic below the new westbound lanes of the approach to allow for the demolition of the final 3000-foot section of the old I-80 freeway structure from 2nd Street (near the Historic Clocktower) to 4th Street. Demolition began soon after the traffic was detoured and is being performed under a compressed schedule from the as-planned 110 days down to 17 days. The demolition work will be completed in mid-April. The compressed schedule has been implemented to minimize impacts and inconvenience to the local residents and businesses. An extensive public outreach was begun well in advance of this work and includes all of the upcoming impacts from future activities.

### Project Funding

The AB 144/SB 66 baseline budget totals \$429 million for the project with \$309 million for CO and \$120 million for COS. See *Table 7-Baseline and Estimated Budget Need for SFOBB West Approach*

**Table 7-Baseline and Estimated Budget Need for SFOBB West Approach (\$ million)**

	AB 144/ SB 66 Budget	1st Quarter 2007 Forecast	Difference
COS	120.0	120.0	-
CO	309.0	309.0	-
<b>Total</b>	<b>429.0</b>	<b>429.0</b>	<b>-</b>



West Approach New I-80 Eastbound Westbound Model (Under Construction)

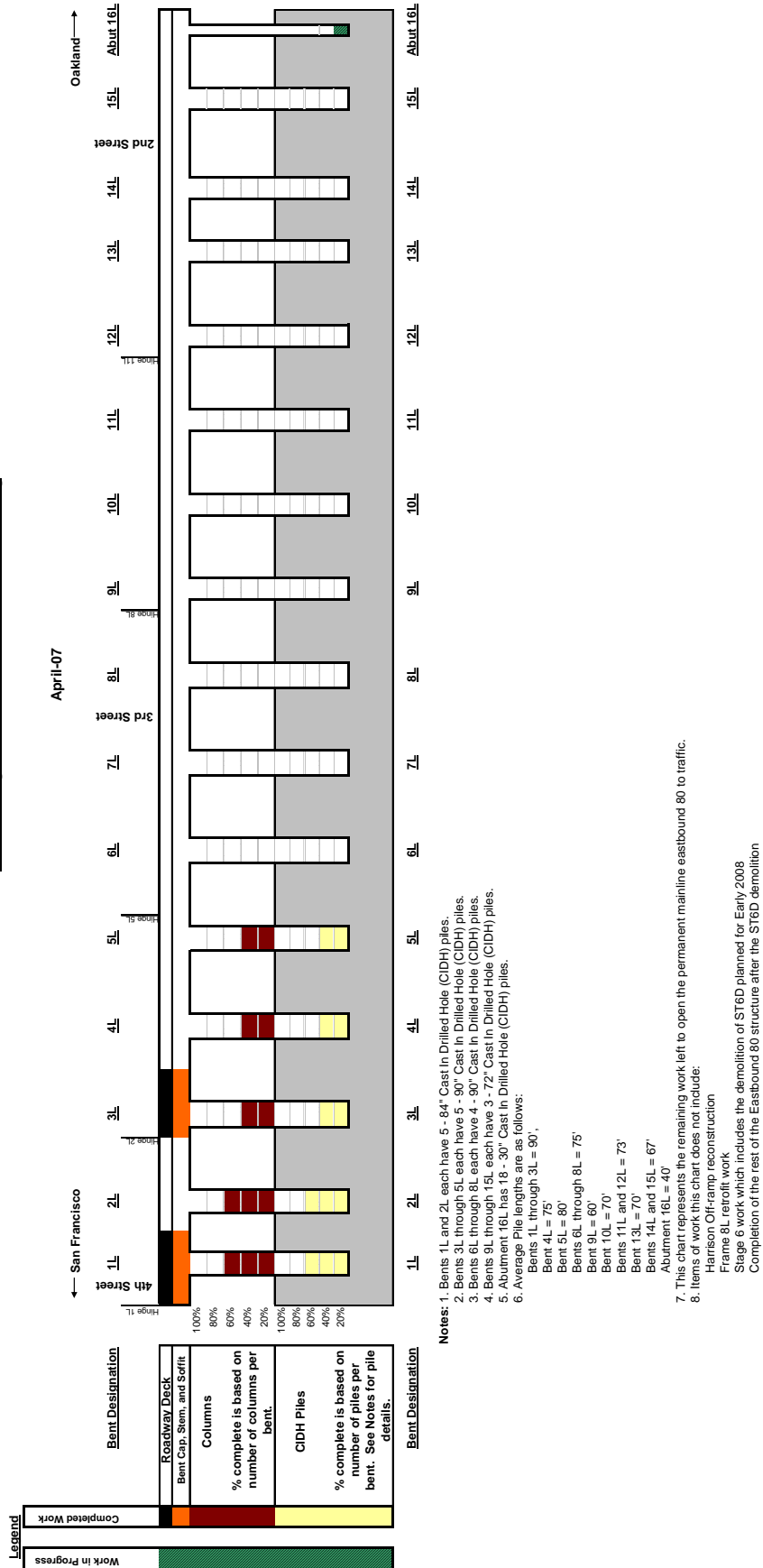
## Major Risk Issues

Caltrans' west approach Risk Response Team is continuing with its efforts to manage project risks. Updated risk assessments have been regularly performed during the First Quarter as a standard project management practice.

Lessons learned to this point in the project continue to be important aspects of the implementation plans designed to mitigate risk, for example:

- The aggressive informational campaigns have proven successful in keeping the public fully informed of upcoming demolition operations that would affect traffic, thereby mitigating adverse public perception. Regional and local information campaigns will be launched during spring 2007 to proactively address public concerns related to upcoming work on the interim eastbound detour and subsequent demolition work.
- Equipment and labor resources were increased during low traffic times such as nights and weekends. This strategy reduced inconveniences to the surrounding residents and businesses and minimized impact to the regional motorists while maintaining the level of production required for the project to remain on the target schedule.
- A high-priority risk issue currently being addressed by Caltrans concerns investigation and testing for the identification of pile anomalies that must be completed timely so as to avoid construction impact. To respond to this risk, Caltrans Construction staff coordinates closely with Structure Design and Caltrans Material Engineering and Testing Service (METS) staff daily on pile investigation and testing issues, and proactively monitors this effort. Tracking of the testing effort is done at the individual pile level of detail. Team participation in Risk Management meetings has proven to be valuable in addressing this issue.

**SFOBB West Approach Retrofit Progress Diagram  
For The Stage 5 Mainline Eastbound 80 Rebuilding**



**SFOBB East Span Seismic Replacement**

The SFOBB East Span Seismic Replacement project will be seismically retrofitted through the complete replacement of the existing span. The project includes construction of the Skyway portion of the bridge (See *SFOBB East Span Replacement Project* picture below), which consists of two parallel concrete structures, each approximately 1.3 miles in length; an SAS bridge consisting of a 510-foot tower supporting a bridge deck connecting the Skyway bridge to YBI, transition structures on YBI and on the east end of the bridge connecting to the toll plaza area, and demolition of the existing east span.

The SFOBB east span project now consists of 21 contracts. Construction of the Oakland Touchdown (OTD) Approach Structures and the Yerba Buena Island Transition Structures (YBITS) has been split

into multiple contracts to facilitate construction flow and acceleration of work elements off the critical path for the completion of the new east span.

The current 21 SFOBB east span contracts are identified below:

Eight contracts are **complete**:

- Interim Retrofit (Existing Bridge)
- East Span Retrofit (Existing Bridge)
- Pile Installation Demonstration
- OTD Geofill
- YBI Archaeology
- United States Coast Guard (USCG) Road Relocation on YBI
- SAS Land Foundations (W2)
- YBI Electrical Substation

**Table 8-SFOBB East Span Seismic Replacement Project Schedule Summary**

Contract	AB 144/SB 66 Baseline Pro	Approved Changes	Current Approved Schedule	1st Quarter 2007 Forecast Project Completion Date	Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	-
YBI South / South Detour*	July 2007	36	June 2010	June 2010	-
Stormwater Treatment Measures	March 2008	-	March 2008	June 2007	(9)
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-
Oakland Touchdown (OTD)	December 2013	12	December 2014	December 2014	-
* OTD Submarine Cable	n/a		January 2008	January 2008	-
* OTD No. 1 (Westbound)	n/a		July 2009	October 2009	3
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	December 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-

*Note: The new east span forecast to be fully open to traffic in September 2013. Construction activities will continue beyond that date to complete the project, including demolition of the existing structure.*

Six contracts are under **construction**: Note that percent complete figures for construction contracts are based on actual payments made divided by the contract amount.

- Skyway contract (94 percent complete)
- South/South Detour (49 percent complete)
- SAS Marine Foundations (E2/T1) (77 percent complete)
- SAS (18 percent complete)
- Stormwater Treatment Measures (61 percent complete)

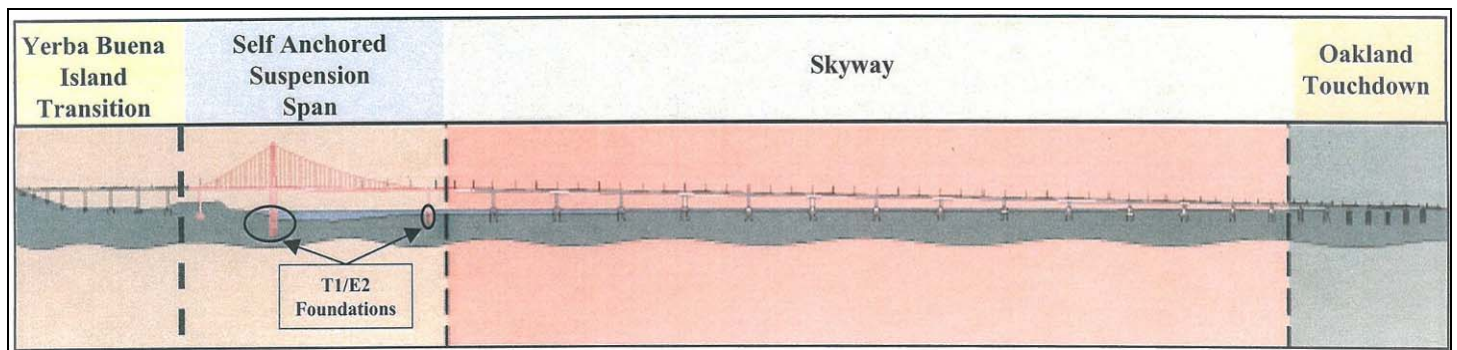
Seven contracts are in **design**:

- OTD #1 contract: The contract was advertised on February 26, 2007 with bid opening scheduled for June 5, 2007.
- OTD #2 contract: The contract is planned to be advertised in summer 2010.
- OTD portions of the corridor electrical contract: This scope may be executed as a separate contract, or alternatively, may be included within OTD #2 contract and/or the other contracts within the east span corridor.
- YBITS #1 (design 80 percent complete to date)
- YBITS #2 (design 80 percent complete to date)
- YBITS #3 contract
- Existing Bridge Demolition design (ten percent complete to date)

The forecast completion date as compared to the AB 144/SB 66 baseline completion date for each of the major components of the SFOBB East Span Seismic Replacement project is shown in *Table 8-SFOBB East Span Seismic Replacement Project Schedule Summary* below.

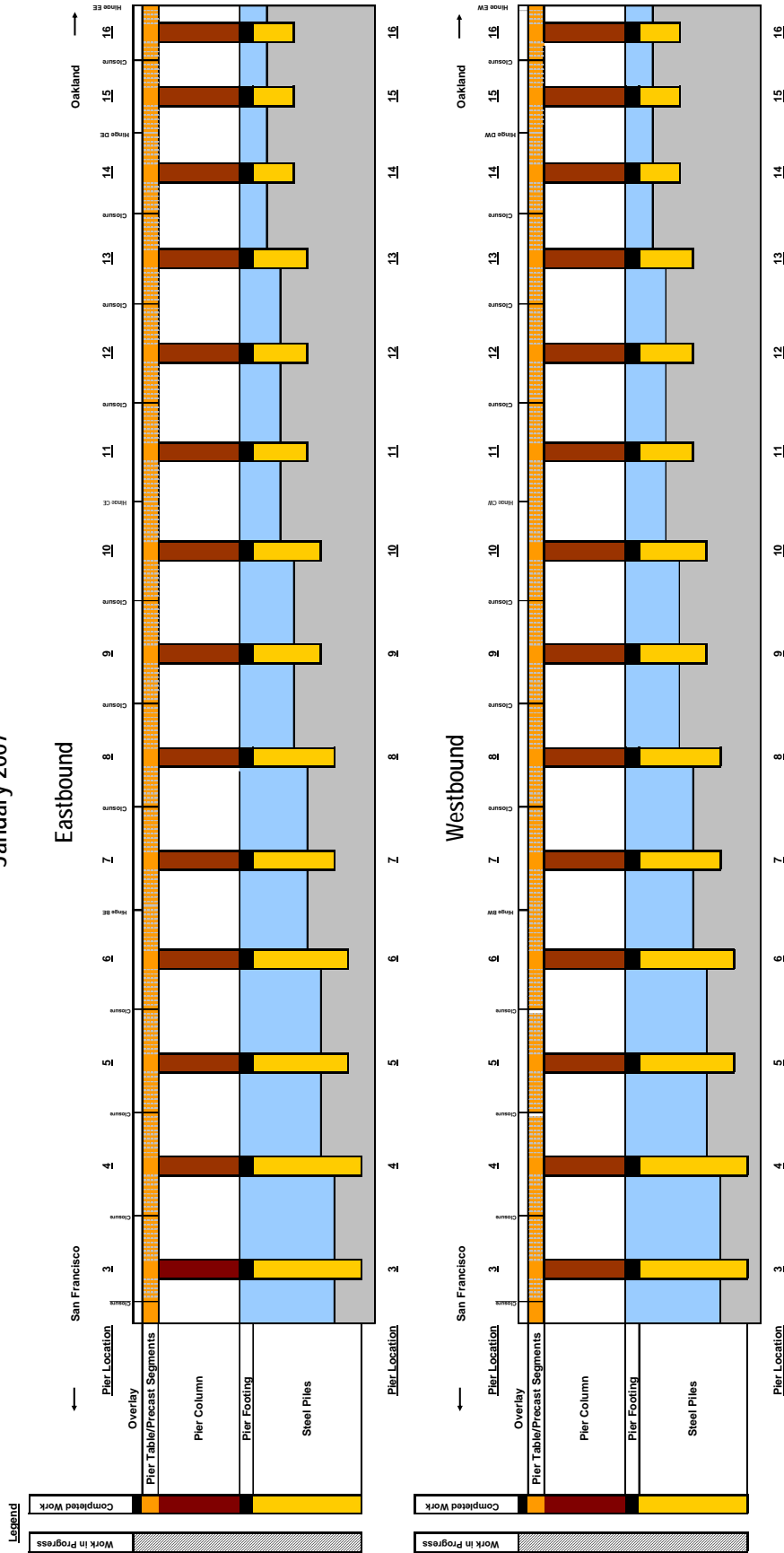
The approved east span opening date has been extended by 12 months by the TBPOC through addendum issued on the SAS contract based on bidder inquiries received during advertisement. The current approved schedule does not include the potential for schedule reduction based on an early completion incentive on the SAS contract of six months that was also included in the addendum.

The completion of the Skyway contract has been revised from April 2007 to December 2007 as approved by the TBPOC due to a Contract Change Order executed with the Contractor that resolves a variety of construction issues. The schedule for the YBI SSD contract has been extended to take into account the 12-month change to the SAS contract schedule and the incorporation of additional work scope from the YBITS contract. This extension is not expected to impact the new east span open-to-traffic date.



SFOBB East Span Replacement Project

San Francisco-Oakland Bay Bridge East Span Replacement Project - Skyway Contract  
January 2007





## **Milestones Achieved – East Span Contracts**

- The Skyway contract is 94 percent complete as of March 2007. The foundation work is complete including the installation of the fenders around six of the pier footings. The eastbound and westbound structures are 100 percent complete with the erection of all 452 segments (refer to diagram on page 18). The final closure pour was completed in February, 2007.
- An overall settlement has been reached with the Contractor to resolve all cost and schedule impacts posed by claims related to hinge pipe beam fabrication, service platforms, electrical appurtenances, polyester concrete overlay, modular joints and other tasks to be completed that were known as of August 1, 2006. A time extension of 220 working days, extending the project completion date to December 2007, has been approved by the TBPOC. The change in schedule to the Skyway contract will not delay the open-to-traffic date for the new East Span project, nor will this settlement negatively impact the overall budget for the Skyway contract or the project. Various Notices of Potential Change (NOPCs) have been issued by the Contractor on behalf of their Steel Orthotropic Box Girder (SOBG) fabrication subcontractor concerning issues related to that work scope that has been completed. All of these NOPCs have been recommended to be heard by the Dispute Review Board.
- The E2/T1 contract is 77 percent complete as of March 2007. At the East Pier (E2), foundation pile driving has been completed. E2 footing frames are now being welded to the piles. At the Tower Pier (T1), all steel foundation casings have been fabricated. Work is now progressing on installation of the casings and rock sockets. Fabrication of the T1 footing box was completed in Texas and was delivered and installed at the project site on March 17, 2007.
- The SFOBB East Span Seismic Replacement Project SAS Superstructure contract is 18 percent complete based on payments to the Contractor as of March 2007. The Contractor is mobilizing staff to the field office on Pier 7 in Oakland. Development of various administrative submittals, including the baseline schedule, is continuing. A final baseline schedule has been submitted by the Contractor and was accepted by Caltrans.
- The Contractor is finalizing agreements with various manufacturers, fabricators, suppliers and subcontractors, including Zhenhua Port Machinery Company (ZPMC), of Shanghai, China, to supply and fabricate all the major steel structures in the SAS. Caltrans is working to set up facilities and to organize resources in China that will ensure an effective Owner's presence in the steel fabrication shops operated by ZPMC. Caltrans is also taking risk mitigation measures to address potential issues during construction due to structural steel plate conflicts and welding methods.

## **Yerba Buena Island Contracts**

- For the Yerba Buena Island South-South Detour (SSD) contract, Caltrans and its consultants have assumed design responsibilities from the Contractor for the design the East and West tie-ins from the existing bridge and tunnel to the detour structure. Completion of their design is being managed by Caltrans and is to be completed in conjunction with the SAS schedule to minimize impacts to the traveling public. The viaduct segment is being fabricated in South Korea.
- The YBITS #1 contract will construct structures necessary to connect the new SAS to the existing YBI tunnel. To minimize schedule and construction risk, TBPOC approved the option to accelerate portions of YBITS #1 work, including shifting critical path work to the SSD contractor. The YBITS foundation work was added to the SSD contract because foundation

work is always the highest risk element of structure construction. Early construction of the foundations would significantly reduce risk to the east span corridor schedule. Preparation of final PS&E packages is currently underway.

- A need was identified to accelerate work on pier W3L due to the SAS contractor need for access to that area. The SSD contractor, CC Myers, completed that work and the SAS contractor has been granted access to that area ahead of schedule.
- The YBITS #2 contract includes demolition of the South/South Detour (SSD) temporary structure, completion of the new eastbound on-ramp, completion of the bike path section on YBI and reconstruction of local and affected facilities at YBI. Eastbound traffic will be placed on the new structure in this contract. The majority of the design work is complete. Preparation of detailed plans and quantity calculations are in progress. The decision on the accelerated work will impact design work on this contract.
- The YBITS #3 contract is for landscaping, and includes slope restoration, vegetation restoration and plant maintenance for the areas affected by YBI construction. A planting concept and preliminary plans have been developed for a majority of the area. Determination of the extent of the U.S. Coast Guard area to be landscaped is still pending. Development of the final plans has not been completed.

### **Oakland Touchdown Contracts**

- The OTD Submarine Cable contract will replace the existing submarine electrical cable from Oakland to Treasure Island. The cable relocation contract will place a new electrical cable(s) between the East Bay and Treasure Island because the existing electrical cable providing power to the island is close to foundation work necessary for the construction of the OTD #1 contract, which was advertised in

February 2007. On January 11, 2007, Caltrans approved a contract with Manson Construction for the submarine cable contract. Notice to proceed was issued on February 6, 2007. The contractor is currently preparing contract submittals for Caltrans review and has placed an order for the cabling. The cable is expected in the Bay Area in the summer of 2007.

- The OTD #1 contract includes construction of all of the marine foundations, westbound bridge section and roadway approach for the section that connects the new Skyway portion to the roadway west of the Oakland Toll Plaza. Design work is complete. PS&E were submitted to the Caltrans Office Engineer on September 1, 2006. This contract was advertised to the bidders on February 26, 2007 and contract completion is scheduled for October 2009. The contract will include workaround specification language to minimize risks from a delayed submarine cable contract.
- The OTD #2 contract includes construction of the remaining eastbound bridge section and roadway approach for the section that connects the new Skyway portion to the roadway west of the Oakland Toll Plaza. This work will occur once the westbound traffic is shifted onto the new SAS. Design work for the structures portion of the OTD #2 contract is complete. Design work on the roadway portion is ongoing.
- A fourth contract could 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. The inclusion of this work into another existing contract is also being considered.

## Other Contracts

- The Stormwater Treatment Measures contract is 61 percent complete as of March 2007. The Stormwater Project was required as part of the environmental mitigation package for the SFOBB Seismic Safety Project by the Regional Water Quality Control Board. The project will reduce the concentration of stormwater runoff pollutants including industrial chemicals, asbestos from brake pads, hydrocarbons, and heavy metals, from entering into the adjacent Emeryville Crescent. The Emeryville Crescent is a 558-acre tidal marsh and cove that supports up to 14,000 shorebirds and thousands of other birds, including the endangered clapper rail which nests and forages in the vegetative cover of the marsh. This area has been described as supporting the largest number of shorebird species regularly occurring at one place within San Francisco Bay (Bodega Bay Institute, 1978). The project will provide water treatment of at least 85% of the average annual runoff from a 155-acre shed area in the vicinity of the

SFOBB Toll Plaza. By removing toxins from the SFOBB runoff, Caltrans will enhance the habitat quality of the Emeryville Crescent and by extension, the San Francisco Bay. Current work continues on the installation of drainage structures, piping and pump stations. Work has also started on planned bioretention basins.

- Design on the Existing Bridge Demolition contract is 10 percent complete. Design work has been temporarily suspended to assign engineering resources to higher priority tasks, and will resume at a later time. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension.



*Aerial view of Skyway construction*

## Project Funding

### Baseline and Projected Budget and Schedule

The AB 144/SB 66 baseline budget for the SFOBB east span is \$5.486 billion with \$4.527 billion for CO and \$959.4 million for COS. The current approved budget for SFOBB east span is \$5.666 billion with \$4.707 billion for CO and \$959.3 million for COS. This amount does not include program contingencies. See *Table 9-SFOBB East Span Replacement Cost Summary*.

The TBPOC re-evaluates project and contract cost forecasts continuously. The estimate-at-completion as of March 31, 2007, includes revised forecasts from AB 144/SB 66 budget, as follows:

- A forecast increase in the cost of COS to \$977.1 million as a result of a detailed staffing and consultant contract cost forecast completed as of the end of the First Quarter 2007. This forecast includes considerations of revised and increased construction contract schedules as mentioned elsewhere in this report that require coverage by staff and consultants.
- A forecast \$13.7 million increase for the SAS Superstructure contract to cover actions taken to encourage additional bidders for the project, including the bidder’s stipend for the lowest three responsive bidders.
- A forecast \$18.7 million increase in the CO for the OTD contract due to an approved Engineer’s Estimate for the OTD #1 contract. The COS for the contract was also increased to cover the

**Table 9-SFOBB East Span Replacement Cost Summary (\$ Millions)**

Contract	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (03/2007)	1st Quarter 2007 Forecast	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	487.6	977.1	17.7
Capital Outlay						
Skyway	1,293.0	-	1,293.0	1,140.5	1,293.0	-
SAS E2/T1 Foundations	313.5	-	313.5	203.6	313.5	-
SAS Superstructure	1,753.7	-	1,753.7	260.4	1,767.4	13.7
YBI South/South Detour	131.9	202.5	334.4	45.8	334.4	-
YBI Transition Structures	299.3	(23.2)	276.1	-	276.1	-
Oakland Touchdown	283.8	-	283.8	-	302.5	18.7
◆ OTD Submarine Cable				-	9.6	
◆ OTD Westbound				-	226.5	
◆ OTD Eastbound				-	62.0	
◆ OTD Electrical Systems				-	4.4	
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	8.8	15.0	-
East Span Completed Projects	90.3	-	90.3	89.2	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Other Budgeted Capital	35.1	-	35.1	0.6	11.0	(24.1)
<b>TOTAL</b>	<b>5,486.6</b>	<b>179.2</b>	<b>5,665.8</b>	<b>2,275.3</b>	<b>5,674.7</b>	<b>8.9</b>

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

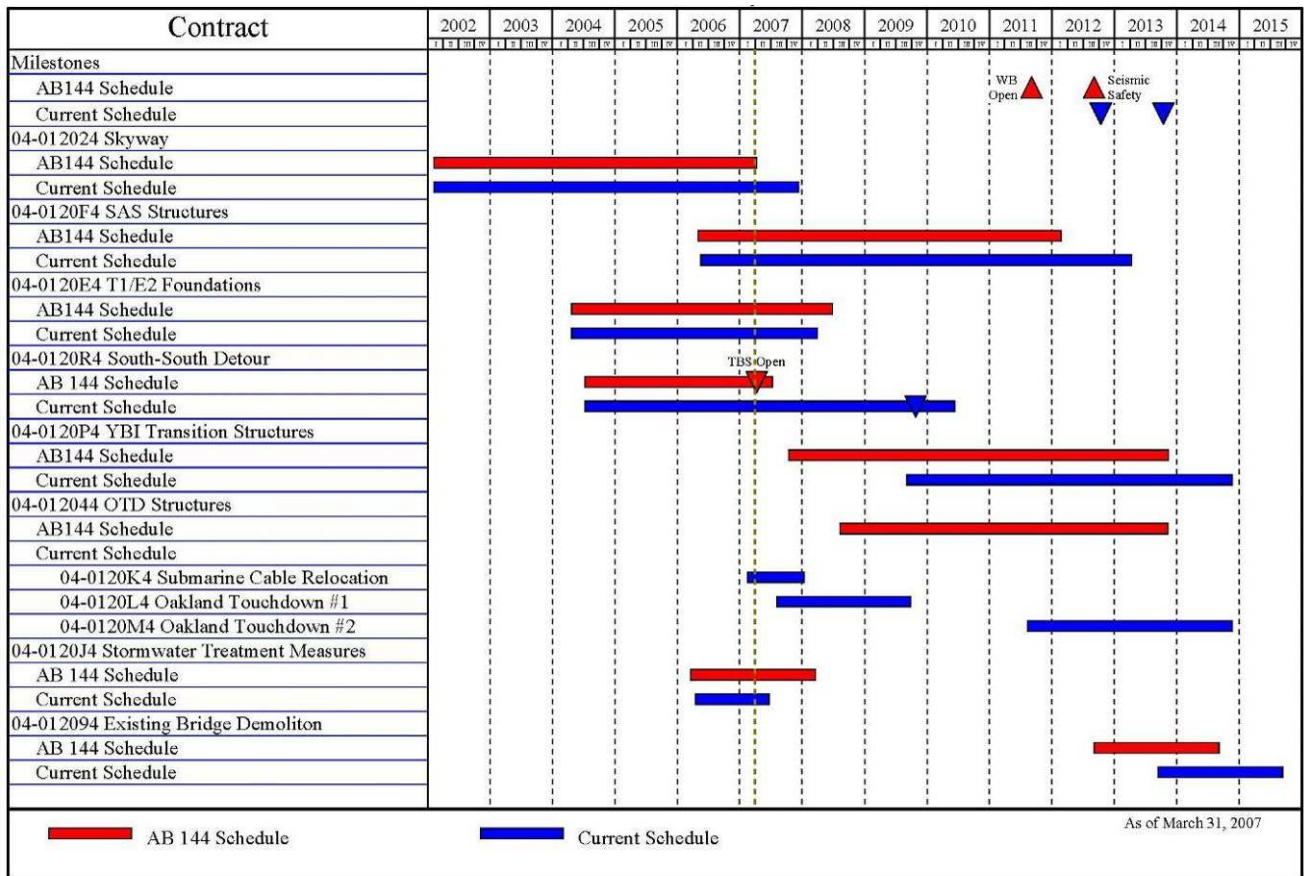
5 additional work to split the contract and to administer four separate contracts over a longer duration rather than the original single contract.

addenda to the SFOBB East Span Seismic Replacement Project SAS contract based on bidder inquiries received during advertisements.

- A forecast \$17.2 million decrease for the Bridge Demolition Contract due to a re-evaluation of the cost escalation rates for the project.
- All of the variances discussed above can be funded from a combination of other budgeted capital and Toll Bridge Seismic Retrofit Program Contingency. The forecast for the SFOBB east span has increased by \$8.9 million to \$5.675 billion.
- The current March 2007 schedule calls for achieving seismic safety and opening to traffic the SFOBB new east span in 2013. The 12 months of schedule extension was granted by
- In March 2007, the TBPOC approved a number of changes to the YBI SSD contract to better integrate the detour work into the current project schedule and to reduce overall project risks by advancing YBITS foundation work into the SSD contract. These changes increased the overall SSD contract budget by \$202.5 million and decreased the YBITS contract by \$23.2 million.

While the 12 month schedule extension for the SAS has also extended the schedules for YBITS and OTD contracts accordingly, Caltrans is scheduling the contracts to accommodate the possibility of an early SAS completion based on incentives also included by the SAS addenda.

**Chart 2-San Francisco-Oakland Bay Bridge East Span Corridor Schedule Baseline AB 144/SB 66 vs. Current Projected**



For the SSD contract, the amount of delay to this contract is yet to be fully determined and is subject to analysis by Caltrans and negotiation with the Contractor. This delay is not expected to impact the open-to-traffic for the new east span.

It is estimated that all of the construction activities for the SFOBB East Span Seismic Replacement project will be completed by 2015, marked by the planned demolition of the existing SFOBB east span.

The comparison of the AB 144/SB 66 baseline schedule and the current projected schedule is shown in *Chart 2-SFOBB East Span Corridor Schedule, Baseline AB 144/SB 66 vs. Current Projected*. It should be noted that the schedules shown in *Chart 2* do not at this time account for the potential “worst-case” issues that may affect the schedule identified in the SFOBB East Span Seismic Retrofit Project Risk Management Plan.

## Major Risk Issues

### SFOBB East Span Project Replacement Risk Management Plan

Caltrans continues to implement comprehensive risk management on all SFOBB East Span Seismic Replacement Project contracts in accordance with AB 144. Currently, Caltrans and BATA have embarked on an initiative to manage risk jointly. Risk response efforts continue to focus on encouraging responsive bids for future contracts and mitigating the estimated cost/schedule impact of identified risks. See “Risk Management Program” on page 27 for more information.

### Quarterly Environmental Compliance Highlights

SFOBB east span environmental tasks for the current quarter are focused on mitigation monitoring. All weekly, monthly, and annual compliance reports to resource agencies have been

delivered on time with no comments from receiving agencies. Key successes this quarter include:

- Bird monitoring was conducted weekly in the active construction areas. American Peregrine falcon and California clapper rail nest monitoring for the 2006/2007 nesting season began mid-December. On March 12, 2007, a female American Peregrine Falcon was observed laying eggs at the nest site located on the south leg of Pier E3. Based on previous observations during this nesting season, the estimated hatching date will be on or about April 21, 2007.
- Turbidity monitoring was conducted without incident during drilling and decanting at Pier T1.
- Monitoring for herring spawning activity within the project construction limits began on December and will continue through March 31 each year. Physical monitoring in January 2007 during pile-drilling and decanting activities at Pier 1 did not detect any herring spawning within 200 meters of Caltrans construction operations.
- Monitoring of the one-year eelgrass pilot program at the North Basin site was completed in July 2006. The results of the monitoring were presented to the resources agencies on December 5, 2006. Caltrans is currently in the process of amending Bay Conservation and Development Commission Permit to implement one additional year of eelgrass restoration monitoring and additional plantings during Spring/Summer 2007. An additional year of monitoring will enable Caltrans to accurately assess the feasibility of continuing restoration efforts.

## Completed Projects

Seismic retrofit and project close-out has been completed on the Benicia-Martinez, Carquinez, San Mateo-Hayward, Vincent Thomas, San Diego-Coronado toll bridges and on the west span of the SFOBB. See *Table 10-Cost Comparison AB 144/SB 66, First Quarter 2007 Forecast and Expenditures through March 2007 for Completed Projects*. The Richmond-San Rafael Bridge project expenditures have not been completely closed because Caltrans is in discussions with regulatory agencies regarding potential mitigations for impacts on fish in the project area.

Caltrans awarded a contract for the construction of a public access lot on the Marin side of the Richmond-San Rafael Bridge to comply with a Bay Conservation and Development Commission (BCDC) permit condition. The Richmond-San Rafael Public Access Project will provide public

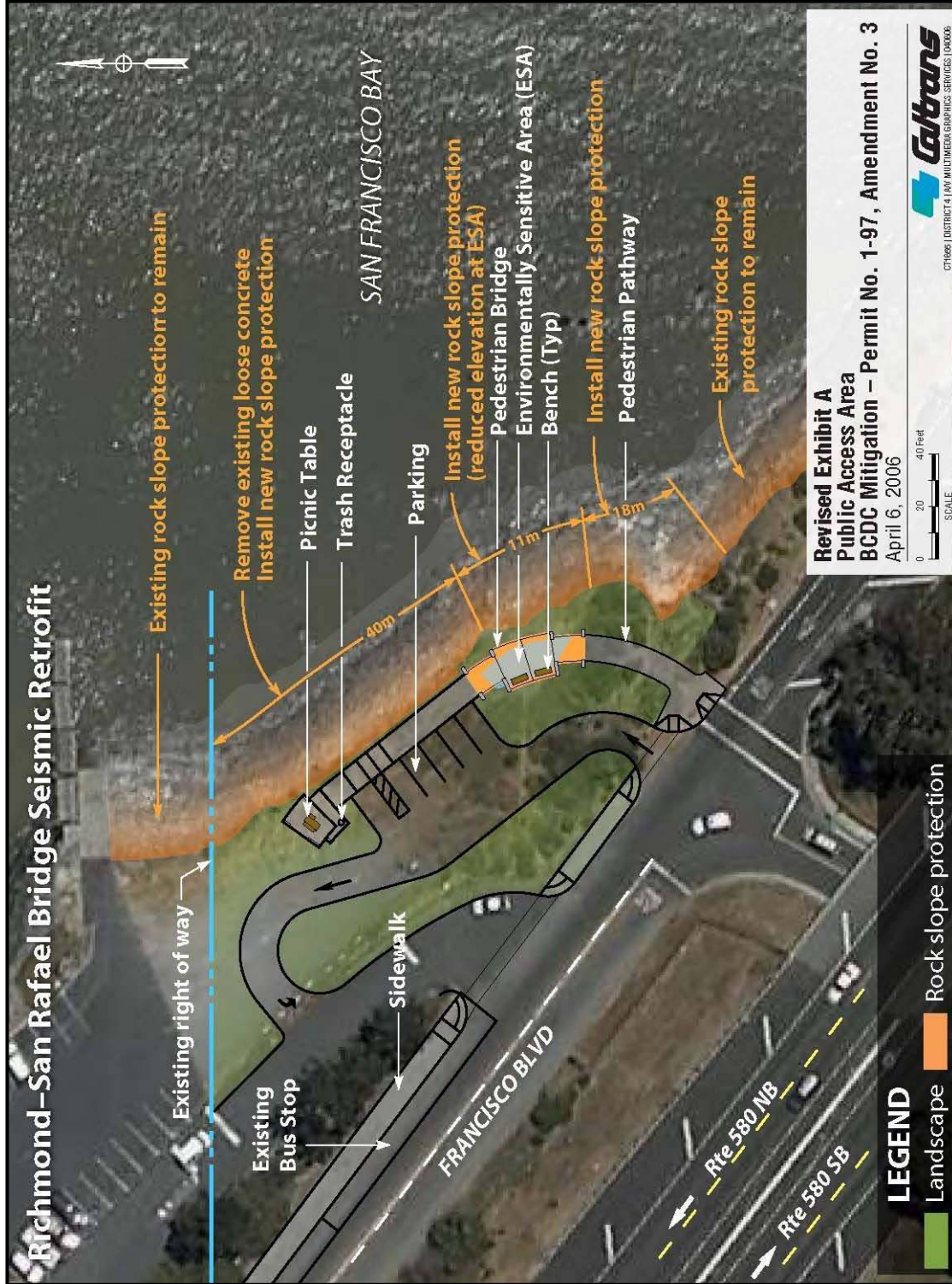
access to the Bay shoreline at the north end of the Richmond-San Rafael Bridge in Marin County. This contract will be completed in 2007.

To close out the Richmond-San Rafael Seismic Retrofit Project, Caltrans faces potential exposures concerning the environmental mitigation for negative impacts on fish, which is currently being discussed with regulatory agencies. Final savings for the Richmond-San Rafael Bridge project will be based on the resolution of pending negotiations with environmental permitting agencies regarding the cost of pile driving mitigation. Initial project cost savings in the amount of \$89 million have been transferred to the Toll Bridge Seismic Retrofit Program Contingency, as directed by the TBPOC.

**Table 10-Cost Comparison AB 144/SB 66, First Quarter 2007 Forecast and Expenditures through March 31, 2007 for Completed Projects (\$ million)**

Project	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (03/2007)	1st Quarter 2007 Forecast	Variance
a	b	c	d = b + c	e	f	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	301.1	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.2	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit Project	163.5	-	163.5	163.4	163.5	-
Richmond-San Rafael Bridge Retrofit Project	914.0	(89.0)	825.0	791.8	825.0	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit Project	103.5	-	103.5	102.6	103.5	-
<b>TOTAL</b>	<b>1,839.4</b>	<b>(89.0)</b>	<b>1,750.4</b>	<b>1,709.3</b>	<b>1,750.4</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined. Although seismic retrofit of the Richmond-San Rafael and San Diego-Coronado bridges are complete, environmental mitigation/monitoring work is still ongoing.*





## Risk Management Program

The following is a summary of risk management activities during the First Quarter of 2007.

### Developments this Quarter

- Corridor Schedule Risk Analysis: The project schedules have been integrated into a corridor schedule for schedule risk analysis. The schedule has been updated according to the accepted SAS schedule. The schedule risk analysis is on-going with the participation of the Corridor Schedule Team.
- Corridor Schedule Team: The Corridor Schedule Team (CST) reviews, assesses and mitigates corridor schedule risks for the East Span. The CST reviewed several opportunities to enhance the schedule and provided recommendations to management regarding schedule decisions and risk mitigation:
  - Several Yerba Buena Island (YBI) Transition Structure foundations have been moved into the South-South Detour (SSD) contract. This reduces the risk that construction of the foundations (inherently risky owing to potential differing site conditions) may cause a delay to the corridor because such work will be completed well in advance of when needed.
  - The careful phasing of the SSD West Tie-in construction will complete this critical work well ahead of when the structure will be required, minimizing the number of bridge closures, and reducing the risk of delay. It replaces much of the existing viaduct near the tunnel portal, eliminating the risk of unforeseen problems during retrofit of an old structure.
  - A milestone was added to the OTD 1 contract documents for early completion of westbound access to the Skyway. This is intended to assure that the Self-Anchored Suspension (SAS) bridge contractor will have timely access to the SAS site via the Skyway.
- The Corridor Schedule Team evaluated a request from the SAS contractor for additional work area on YBI to facilitate the construction of the W2 cap beam, temporary towers for the bridge deck on and near YBI, and cable installation. The Team recommended that the extra work area be granted to reduce the risk of delays arising from this work.
- Capital Outlay Support Risks: The Capital Outlay Support (COS) risk register contains support cost risks that affect all projects and incorporates from the project risk registers those risks that have an impact on COS. The risks were updated this quarter, including a revision of Caltrans overhead rate projections.
- Program-level Risks: The program-level risk register captures risks that are common to all projects. Many of the risks have been quantified this quarter and are included in the assessment of the adequacy of the Program Reserve.
- Corridor Contingency: Corridor contingency is the sum of the contingency allowance remaining on the projects. It is intended to cover project risks. On-going quantitative risk analysis assesses the adequacy of the corridor contingency, and any potential need to increase it.
- Adequacy of Reserves: AB144 requires Caltrans to regularly assess its reserves for risks and potential claims. Currently, there is a forecasted \$800.9 million Program Reserve. Quantitative risk analysis is on-going to assess the combined effect of corridor contingency, COS risks and program-level risks. Results indicate that a draw on the Reserve may ultimately be necessary.

### Risk Management Achievements on Contracts

- Skyway Contract: No significant schedule risks remain and there has been no increase in cost risk exposure. Outstanding Notices of Potential Claim are being resolved.
- West Approach: The project team has completed several risky work elements, such as the opening of the revised ST6D detour to traffic. The new lane alignment eliminates constructability issues associated with the temporary on-ramps and the potential for significant traffic operations difficulties.
- E2-T1 Foundations Contract: A number of risks have been reduced or retired as the work has progressed beyond the risks. The contract is unlikely to delay the SAS contract, affirming a schedule risk assessment about one year ago by Risk Management.
- South-South Detour Contract: A well-defined plan has been completed with the contractor to mitigate risks to the planned bridge closure. Efforts are continuing to mitigate schedule risks to the next milestones.
- SAS Contract: Potential fabrication and quality assurance risks were investigated during visits to China, and mitigation options are under consideration. Caltrans is studying the contractor's request for availability of additional work area for cable installation. It has potential impacts on SAS work sequencing, work on the YBI Transition Structures, and the corridor schedule.
- Submarine Cable Relocation Contract: The contractor's schedule will meet the required date. Cable procurement is underway and, if it arrives as planned, there will be no risk of delay to the Oakland Touchdown contract or the corridor. On January 11, 2007, Caltrans approved a contract with Manson Construction for this project.

### Near-Term Risk Management Actions

The anticipated risk management activities over the next two quarters will focus on:

- Continuing the development and execution of appropriate and effective risk responses for all projects.
- Assessing COS, program-level, and corridor schedule risks.
- Evaluating potential draws on the Program Reserve.
- Further refining risk management procedures and processes.

Forecast near-term risk management activities are based on what is known and anticipated at this time. They remain subject to change as conditions, events, and priorities dictate.



*West Approach demolition*

## Other Toll Bridges

### Dumbarton and Antioch Bridges

State Route 84 crosses the southern region of San Francisco Bay between the cities of Newark to the east and East Palo Alto to the west. The Route consists of three lanes in each direction and an eight-foot bicycle/pedestrian lane. The AADT of the Route is near 81,000. The bridge is over 2 km in length and is positioned in an approximately normal geometry between two seismic faults which the USGS has reported to pose most of the significant seismic threat to the San Francisco Bay Area: the San Andreas Fault, some 15 km to the west of the bridge; and the Hayward Fault, some 13 km to the east of the bridge.

State Route 160 crosses the San Joaquin River between the city of Antioch and Sherman Island (leading to Rio Vista) via the Antioch Bridge. The Bridge carries a single lane of traffic in each direction. The AADT for the Route is slightly over 13,000 vehicles per day. The bridge is threatened by the Bird's Landing Seismic Zone, Cost Range/Sierra Nevada Boundary Zone and the San Andreas Fault.

### Cost and Schedule

A 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.

### Current Progress

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

In June 2006, BATA approved \$17.8 million in funding to proceed with the comprehensive seismic analysis of the bridges. By September 2006, BATA entered into contract with a geotechnical and geophysical consultant to evaluate the bridges.

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

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

Work in the area of bridge structural engineering is underway for both bridges. The structures team to date has been collecting and evaluating structural information on the bridges, reducing that information for use in computer models of the bridges, and initiating early computational runs of the models. Geological, geotechnical, and seismological information from the work areas mentioned previously is being incorporated into the bridge evaluations.

## Summary of TBPOC Expenses

Pursuant to Streets and Highways Code Section 30952.1 (d), expenses incurred by Caltrans, BATA, and the California Transportation Commission (CTC) for costs directly related to the duties associated with the TBPOC are to be reimbursed by toll revenues. *Table 11-Toll Bridge Program Oversight Committee Actual Expenses: July 1, 2005 through March 31, 2007* shows expenses through March 31, 2007, for TBPOC functioning, support, and monthly and quarterly reporting.

### Table 11-Toll Bridge Program Oversight Committee

Expenses: July 1, 2005 through March 31, 2007 (\$ Millions)

Agency/Program Activity	Expenses
BATA	0.2
Caltrans	0.5
CTC	0.1
Reporting	1.2
<b>Total Program</b>	<b>2.0</b>

## Appendices

- A. TBSRP All Bridges AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures through March 31, 2007 (A-1 and A-2).
- B. TBSRP East Span Only AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures through March 31, 2007.
- C. CTC First Quarter Schedule.
- D. Project/Contract Photographs.

## Appendix A-1.

<b>Toll Bridge Seismic Retrofit Program</b>						
<b>AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through March 31, 2007</b>						
(\$ millions)						
Bridge	AB 144/SB 66 Baseline	TBPOC Current Approved Budget	Fourth Quarter 2006 Forecast	First Quarter 2007 Forecast	Variance (1st Q07 - 4th Q06)	Expenditures Through Mar 2007
<b>Benicia-Martinez</b>						
Capital Outlay Support	38.1	38.1	38.1	38.1	-	38.1
Capital Outlay	139.7	139.7	139.7	139.7	-	139.7
Total	177.8	177.8	177.8	177.8	-	177.8
<b>Carquinez</b>						
Capital Outlay Support	28.7	28.7	28.7	28.7	-	28.8
Capital Outlay	85.5	85.5	85.5	85.5	-	85.4
Total	114.2	114.2	114.2	114.2	-	114.2
<b>San Mateo-Hayward</b>						
Capital Outlay Support	28.1	28.1	28.1	28.1	-	28.1
Capital Outlay	135.4	135.4	135.4	135.4	-	135.3
Total	163.5	163.5	163.5	163.5	-	163.4
<b>Vincent Thomas</b>						
Capital Outlay Support	16.4	16.4	16.4	16.4	-	16.4
Capital Outlay	42.1	42.1	42.1	42.1	-	42.0
Total	58.5	58.5	58.5	58.5	-	58.4
<b>San Diego-Coronado</b>						
Capital Outlay Support	33.5	33.5	33.5	33.5	-	33.2
Capital Outlay	70.0	70.0	70.0	70.0	-	69.4
Total	103.5	103.5	103.5	103.5	-	102.6
<b>Richmond-San Rafael</b>						
Capital Outlay Support	134.0	127.0	127.0	127.0	-	126.0
Capital Outlay	780.0	698.0	698.0	698.0	-	665.8
Total	914.0	825.0	825.0	825.0	-	791.8
<b>West Span Retrofit</b>						
Capital Outlay Support	75.0	75.0	75.0	75.0	-	74.8
Capital Outlay	232.9	232.9	232.9	232.9	-	226.3
Total	307.9	307.9	307.9	307.9	-	301.1
<b>West Approach</b>						
Capital Outlay Support	120.0	120.0	120.0	120.0	-	90.6
Capital Outlay	309.0	309.0	309.0	309.0	-	232.5
Total	429.0	429.0	429.0	429.0	-	323.1
<b>SFOBB East Span</b>						
Capital Outlay Support	959.4	959.4	977.1	977.1	-	487.6
Capital Outlay	4,492.1	4,671.3	4,546.8	4,686.6	139.8	1,787.1
Other Budgeted Capital	35.1	35.1	11.0	11.0	-	0.6
Total	5,486.6	5,665.8	5,534.9	5,674.7	139.8	2,275.3
Miscellaneous Program Costs	30.0	30.0	30.0	30.0	-	24.7
Subtotal Capital Outlay Support	1,463.2	1,456.2	1,473.9	1,473.9	-	948.3
Subtotal Capital Outlay	6,321.8	6,419.0	6,270.4	6,410.2	139.8	3,384.1
Subtotal Toll Seismic Retrofit	7,785.0	7,875.2	7,744.3	7,884.1	139.8	4,332.4
Program Contingency	900.0	809.8	940.7	800.9	(139.8)	-
<b>Total Toll Seismic Retrofit Program</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>8,685.0</b>	<b>-</b>	<b>4,332.4</b>

Notes: \* Budget for Richmond-San Rafael Bridge include \$16.9 million of deck joint rehabilitation work that's considered to be eligible for seismic retrofit program funding. (Due to the rounding of numbers, the totals above are shown within \$0.1).

## Appendix A-2.

### Toll Bridge Seismic Retrofit Program - SAS Alternative AB 144 Baseline Budget, Forecasts and Expenditures Through March 31, 2007

(\$ in millions)						
Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of Mar 2007 See Note (1)	Estimated Costs not yet Spent or Encumbered as of Mar 2007	Total Forecast as of Mar 2007  (Columns C +D)	
<b>Other Completed Projects</b>						
Capital Outlay Support	144.9	144.9	144.7	0.2	144.9	
Capital Outlay	472.6	472.6	473.4	(0.7)	472.7	
Total	617.5	617.5	618.1	(0.5)	617.6	
<b>Richmond-San Rafael</b>						
Capital Outlay Support	134.0	127.0	126.1	0.9	127.0	
Capital Outlay	698.0	698.0	673.1	24.9	698.0	
Project Reserves	82.0	-	-	-	-	
Total	914.0	825.0	799.2	25.8	825.0	
<b>West Span Retrofit</b>						
Capital Outlay Support	75.0	75.0	74.8	0.2	75.0	
Capital Outlay	232.9	232.9	234.2	(1.3)	232.9	
Total	307.9	307.9	309.0	(1.1)	307.9	
<b>West Approach</b>						
Capital Outlay Support	120.0	120.0	91.8	28.2	120.0	
Capital Outlay	309.0	309.0	299.8	9.2	309.0	
Total	429.0	429.0	391.6	37.4	429.0	
<b>SFOBB East Span -Skyway</b>						
Capital Outlay Support	197.0	197.0	161.2	35.8	197.0	
Capital Outlay	1,293.0	1,293.0	1,238.1	54.9	1,293.0	
Total	1,490.0	1,490.0	1,399.3	90.7	1,490.0	
<b>SFOBB East Span -SAS- Superstructure</b>						
Capital Outlay Support	214.6	214.6	36.9	177.7	214.6	
Capital Outlay	1,753.7	1,753.7	1,647.6	119.8	1,767.4	
Total	1,968.3	1,968.3	1,684.5	297.5	1,982.0	
<b>SFOBB East Span -SAS- Foundations</b>						
Capital Outlay Support	62.5	51.5	30.1	21.4	51.5	
Capital Outlay	339.9	339.9	303.7	36.2	339.9	
Total	402.4	391.4	333.8	57.6	391.4	
<b>Small YBI Projects</b>						
Capital Outlay Support	10.6	10.6	10.2	0.4	10.6	
Capital Outlay	15.6	15.6	16.2	(0.5)	15.7	
Total	26.2	26.2	26.4	(0.1)	26.3	
<b>South/South Detour</b>						
Capital Outlay Support	29.5	39.5	21.1	18.4	39.5	
Capital Outlay	131.9	334.4	131.5	202.9	334.4	
Total	161.4	373.9	152.6	221.3	373.9	
<b>YBI - Transition Structures</b>						
Capital Outlay Support	78.7	78.7	13.3	65.4	78.7	
Capital Outlay	299.4	276.1	0.1	276.0	276.1	
Total	378.1	354.8	13.4	341.4	354.8	
<b>Oakland Touchdown</b>						
Capital Outlay Support	74.4	74.4	24.2	67.9	92.1	
Capital Outlay	283.8	283.8	9.5	293.0	302.5	
Total	358.2	358.2	33.7	360.9	394.6	
<b>East Span Other Small Project</b>						
Capital Outlay Support	212.3	213.3	196.1	17.2	213.3	
Capital Outlay	170.8	170.8	89.0	57.6	146.6	
Total	383.1	384.1	285.1	74.8	359.9	
<b>Existing Bridge Demolition</b>						
Capital Outlay Support	79.7	79.7	0.3	79.4	79.7	
Capital Outlay	239.2	239.2	-	222.0	222.0	
Total	318.9	318.9	0.3	301.4	301.7	
<b>Miscellaneous Program Costs</b>						
	30.0	30.0	24.9	5.1	30.0	
<b>Total Capital Outlay Support (2)</b>	<b>1,463.2</b>	<b>1,456.2</b>	<b>955.7</b>	<b>518.2</b>	<b>1,473.9</b>	
<b>Total Capital Outlay</b>	<b>6,321.8</b>	<b>6,419.0</b>	<b>5,116.2</b>	<b>1,294.0</b>	<b>6,410.2</b>	
<b>Program Total</b>	<b>7,785.0</b>	<b>7,875.2</b>	<b>6,071.9</b>	<b>1,812.2</b>	<b>7,884.1</b>	

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

(2). Total Capital Outlay Support includes program indirect costs.

(Due to the rounding of numbers, the totals above are shown within \$0.1).

## Appendix B.

### Toll Bridge Seismic Retrofit Program - SFOBB East Span Only AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through March 31, 2007

East Span Contract	(\$ millions)						Expenditures Through Mar 2007
	AB 144/SB 66 Baseline	TBPOC Current Approved Budget See Note (1)	Fourth Quarter 2006 Forecast	First Quarter 2007 Forecast	Variance (1st Q07 - 4th Q06)		
<b>SFOBB East Span -Skyway</b>							
Capital Outlay Support	197.0	197.0	197.0	197.0	-	159.8	
Capital Outlay	1,293.0	1,293.0	1,293.0	1,293.0	-	1,140.5	
Total	1,490.0	1,490.0	1,490.0	1,490.0	-	1,300.3	
<b>SFOBB East Span -SAS- E2/T1 Foundations</b>							
Capital Outlay Support	52.5	41.5	52.5	41.5	(11.0)	20.2	
Capital Outlay	313.5	313.5	313.5	313.5	-	203.6	
Total	366.0	355.0	366.0	355.0	(11.0)	223.8	
<b>SFOBB East Span -SAS- Superstructure</b>							
Capital Outlay Support	214.6	214.6	214.6	214.6	-	33.7	
Capital Outlay	1,753.7	1,753.7	1,767.4	1,767.4	-	260.4	
Total	1,968.3	1,968.3	1,982.0	1,982.0	-	294.1	
<b>SFOBB East Span -SAS- W2 Foundations</b>							
Capital Outlay Support	10.0	10.0	10.0	10.0	-	9.2	
Capital Outlay	26.4	26.4	26.4	26.4	-	25.8	
Total	36.4	36.4	36.4	36.4	-	35.0	
<b>South/South Detour</b>							
Capital Outlay Support	29.5	39.5	29.5	39.5	10.0	21.0	
Capital Outlay	131.9	334.4	152.2	334.4	182.2	45.8	
Total	161.4	373.9	181.7	373.9	192.2	66.8	
<b>YBI - Transition Structures</b>							
Capital Outlay Support	78.7	78.7	78.7	78.7	-	13.3	
Capital Outlay	299.3	276.1	318.5	276.1	(42.4)	-	
Total	378.0	354.8	397.2	354.8	(42.4)	13.3	
<b>Oakland Touchdown (Total, including the following split contracts and prior-to-split expenses)</b>							
Capital Outlay Support	74.4	74.4	92.1	92.1	-	23.9	
Capital Outlay	283.8	283.8	302.5	302.5	-	-	
Total	358.2	358.2	394.6	394.6	-	23.9	
<b>Oakland Touchdown Contract - Submarine Cable</b>							
Capital Outlay Support	-	-	3.0	3.0	-	0.4	
Capital Outlay	-	-	9.6	9.6	-	-	
Total	-	-	12.6	12.6	-	0.4	
<b>Oakland Touchdown Contract No. 1 (Westbound)</b>							
Capital Outlay Support	-	-	49.9	49.9	-	3.3	
Capital Outlay	-	-	226.5	226.5	-	-	
Total	-	-	276.4	276.4	-	3.3	
<b>Oakland Touchdown Contract No. 2 (Eastbound)</b>							
Capital Outlay Support	-	-	15.8	15.8	-	0.2	
Capital Outlay	-	-	62.0	62.0	-	-	
Total	-	-	77.8	77.8	-	0.2	
<b>Oakland Touchdown Contract - Electrical Systems</b>							
Capital Outlay Support	-	-	1.4	1.4	-	0.1	
Capital Outlay	-	-	4.4	4.4	-	-	
Total	-	-	5.8	5.8	-	0.1	



## Appendix B. (Cont'd.)

### Toll Bridge Seismic Retrofit Program - SFOBB East Span Only AB 144/SB 66 Baseline Budget, Forecasts, and Expenditures Through March 31, 2007

East Span Contract	(\$ millions)						Expenditures Through Mar 2007
	AB 144/SB 66 Baseline	TBPOC Current Approved Budget See Note (1)	Fourth Quarter 2006 Forecast	First Quarter 2007 Forecast	Variance (1st Q07 - 4th Q06)		
<b>YBI/SAS (Archeology)</b>							
Capital Outlay Support	1.1	1.1	1.1	1.1	-	1.1	
Capital Outlay	1.1	1.1	1.1	1.1	-	1.1	
Total	2.2	2.2	2.2	2.2	-	2.2	
<b>YBI - USCG Rd Relocation</b>							
Capital Outlay Support	3.0	3.0	3.0	3.0	-	2.7	
Capital Outlay	3.0	3.0	3.0	3.0	-	2.8	
Total	6.0	6.0	6.0	6.0	-	5.5	
<b>YBI - Substation and Viaduct</b>							
Capital Outlay Support	6.5	6.5	6.5	6.5	-	6.4	
Capital Outlay	11.6	11.6	11.6	11.6	-	11.3	
Total	18.1	18.1	18.1	18.1	-	17.7	
<b>Oakland Geofill</b>							
Capital Outlay Support	2.5	2.5	2.5	2.5	-	2.5	
Capital Outlay	8.2	8.2	8.2	8.2	-	8.2	
Total	10.7	10.7	10.7	10.7	-	10.7	
<b>Pile Installation Demonstration Project</b>							
Capital Outlay Support	1.8	1.8	1.8	1.8	-	1.8	
Capital Outlay	9.2	9.2	9.2	9.2	-	9.2	
Total	11.0	11.0	11.0	11.0	-	11.0	
<b>Existing Bridge Demolition</b>							
Capital Outlay Support	79.7	79.7	79.7	79.7	-	0.3	
Capital Outlay	239.2	239.2	222.0	222.0	-	-	
Total	318.9	318.9	301.7	301.7	-	0.3	
<b>Stormwater Treatment Measures</b>							
Capital Outlay Support	6.0	8.0	7.0	8.0	1.0	6.4	
Capital Outlay	15.0	15.0	15.0	15.0	-	8.8	
Total	21.0	23.0	22.0	23.0	1.0	15.2	
<b>Right-of-way and Environmental Mitigation</b>							
Capital Outlay Support	-	-	-	-	-	-	
Capital Outlay	72.4	72.4	72.4	72.4	-	38.8	
Total	72.4	72.4	72.4	72.4	-	38.8	
<b>Sunk Cost - Existing East Span Retrofit</b>							
Capital Outlay Support	39.5	39.5	39.5	39.5	-	39.5	
Capital Outlay	30.8	30.8	30.8	30.8	-	30.8	
Total	70.3	70.3	70.3	70.3	-	70.3	
<b>Environmental Phase (Expended)</b>							
Capital Outlay Support	97.7	97.7	97.7	97.7	-	97.7	
<b>Project Expenditures, Pre-splits</b>							
Capital Outlay Support	44.9	44.9	44.9	44.9	-	44.9	
<b>Non-project Specific Costs</b>							
Capital Outlay Support	20.0	19.0	19.0	19.0	-	3.2	
Subtotal East Span Capital Outlay Support	959.4	959.4	977.1	977.1	-	487.6	
Subtotal East Span Capital Outlay and Sunk Costs	4,492.1	4,671.3	4,546.8	4,686.6	139.8	1,787.1	
Other Budgeted Capital	35.1	35.1	11.0	11.0	-	0.6	
<b>Total SFOBB East Span</b>	<b>5,486.6</b>	<b>5,665.8</b>	<b>5,534.9</b>	<b>5,674.7</b>	<b>139.8</b>	<b>2,275.3</b>	

(1) Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available programs funds has been made available by the Treasure Island Development Authority.  
(Due to the rounding of numbers, the totals above are shown within \$0.1).

**Appendix C.**

**CTC TBSRP Contributions  
Adopted December 2005**

**Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ million)**

Source	Description	2005-06 (Actual)	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
AB 1171	SHA	290									290
	PTA	80	40								120
	Highway Bridge Replacement and Rehabilitation (HBRR)	100	100	100	42						342
	Contingency				1	99	100	100	148		448
AB 144	SHA*	2	8				53	50	17		130
	Motor Vehicle Account (MVA)	75									75
	Spillover		125								125
	SHA**									300	300
	<b>Total</b>	<b>547</b>	<b>273</b>	<b>100</b>	<b>43</b>	<b>99</b>	<b>153</b>	<b>150</b>	<b>165</b>	<b>300</b>	<b>1830</b>

\* Caltrans Efficiency Savings

\*\* SFOBB East Span Demolition Cost

## Appendix D.

### Project/Contract Photographs

### SFOBB East Span Replacement Project

### Skyway Contract



*Skyway Eastbound & Westbound*



*Skyway Erecting the Service Platform*



*Skyway Erected Service Platform*



*Skyway Sandblasting the Bridge Soffit*

**Skyway Contract (Cont'd.)**



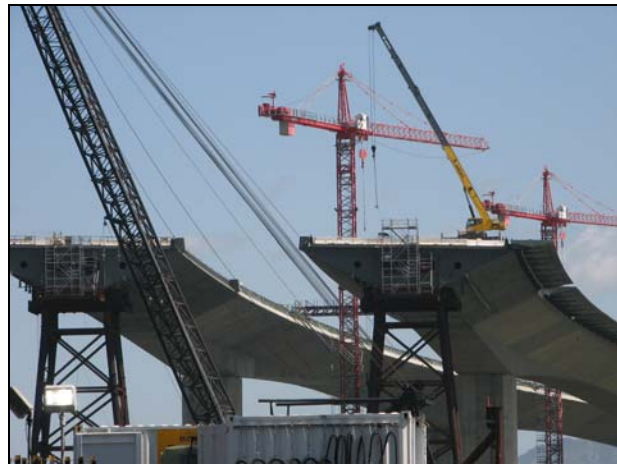
*Skyway Eastbound Hinge BE Expansion Joint*



*Skyway Expansion Joint Installation*



*Skyway - Pouring Concrete Bridge Barrier*



*Skyway Orthotropic Box Girder*



*Skyway Looking East (one)*

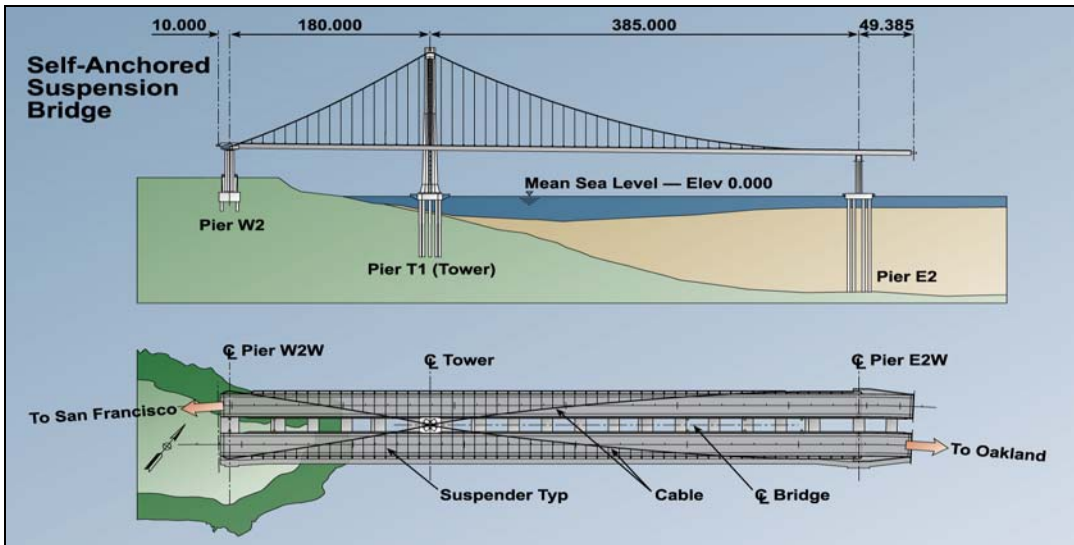


*Skyway Looking East (two)*

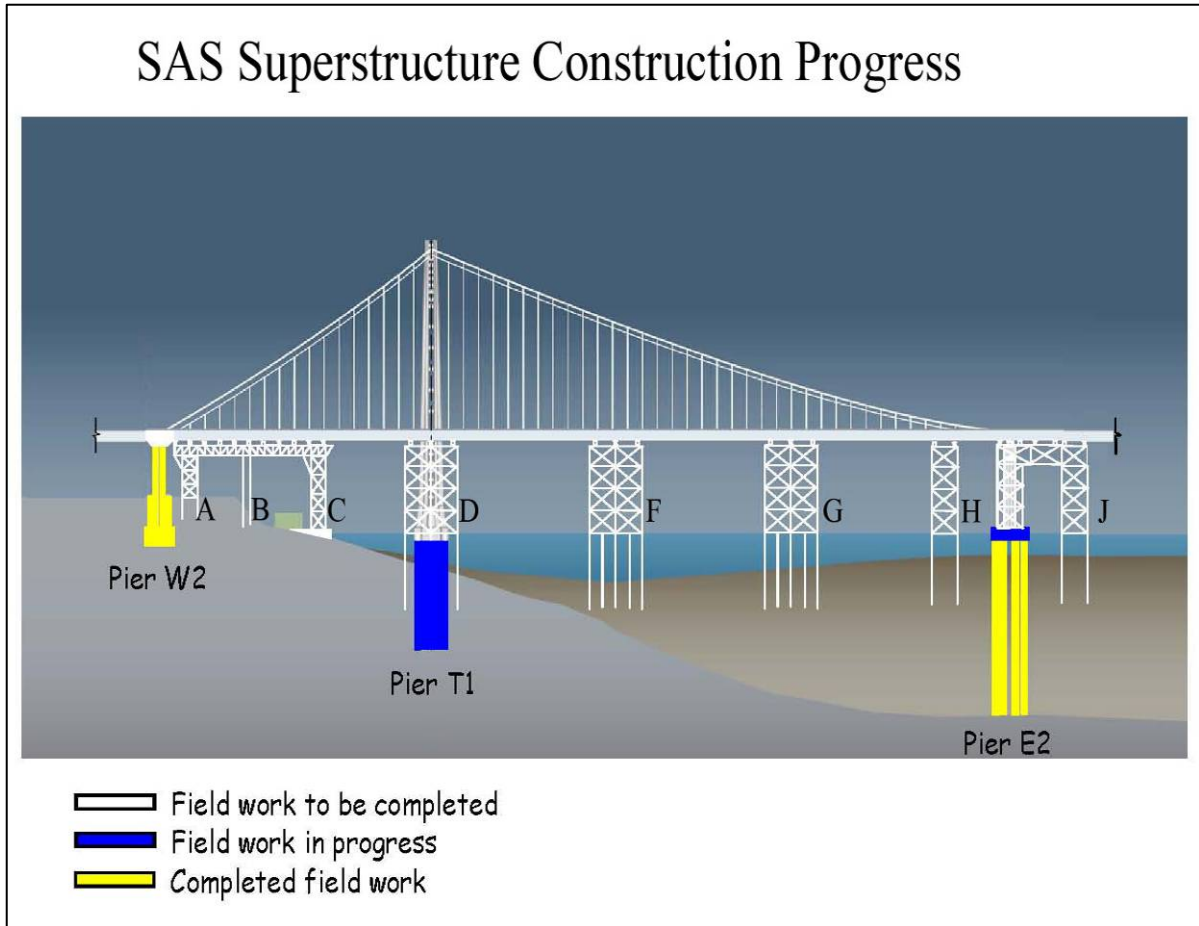
## SAS Superstructure Contract



SAS Superstructure Artist Rendition



### SAS Superstructure Contract (Cont'd.)

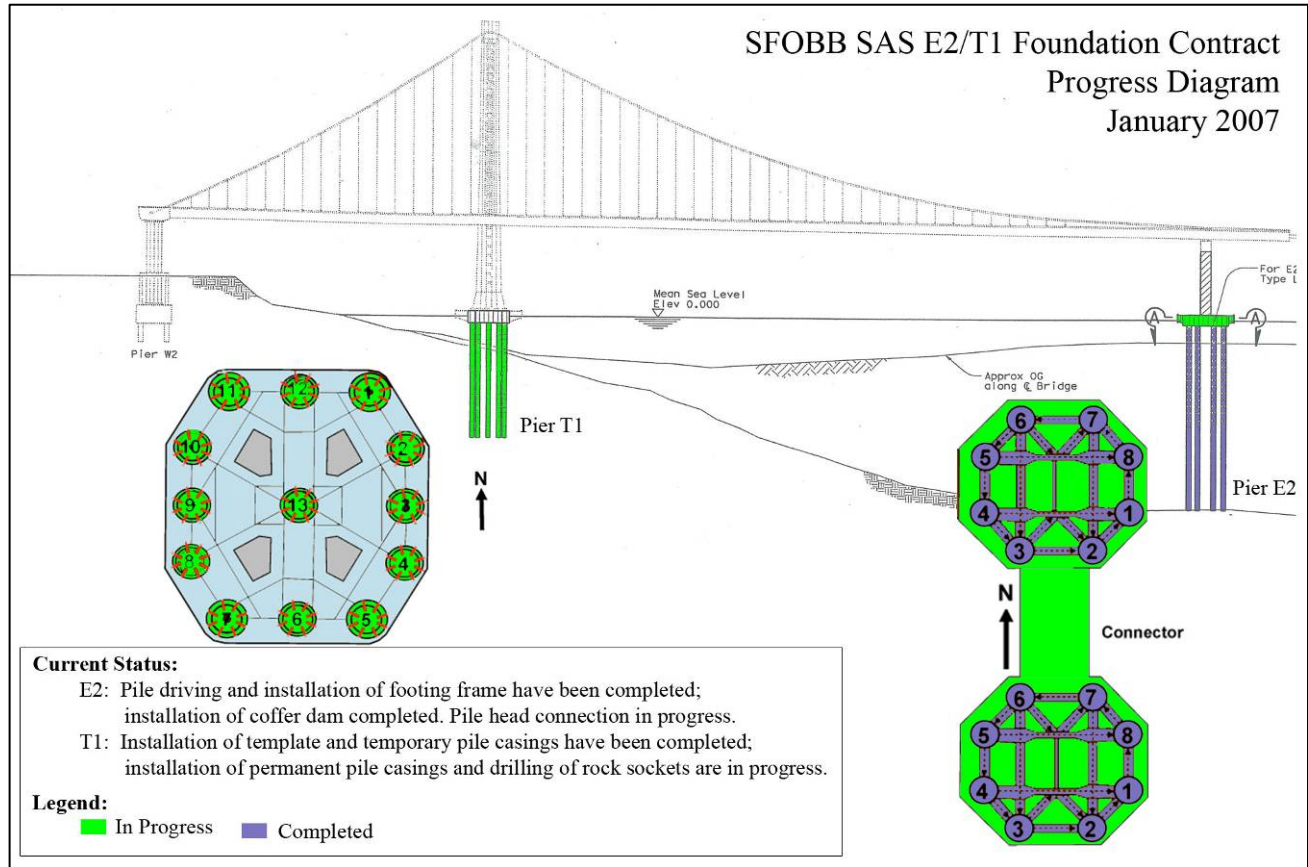


W2 - Preparation for Falsework Erection (one)



W2 - Preparation for Falsework Erection (two)

## SAS E2/T1 Foundations Contract



*E2 Prepared and Sheltered for pile head connection welding*

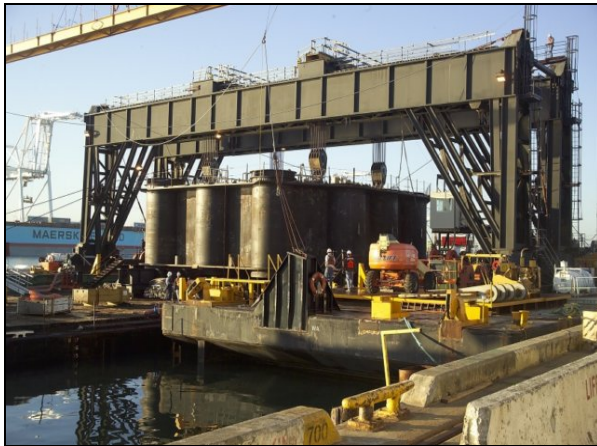


*Rock Socket Drilling in Pile # 4 at T1*

## SAS E2/T1 Foundations Contract (Cont'd.)



*T1 = Foundation for the 530-foot steel tower  
E2 = Eastern Support of the suspension roadway  
W2 = Western Support of the suspension roadway*



*T1 – Footing Box*



*T1 - Bottom Slab Concrete*



## YBI SSD Contract



*Viaduct Bent Cap Falsework*



*Footings and Pier Columns for Bent 48*



*WTI Phase 1 - Demolition of North Overhang*



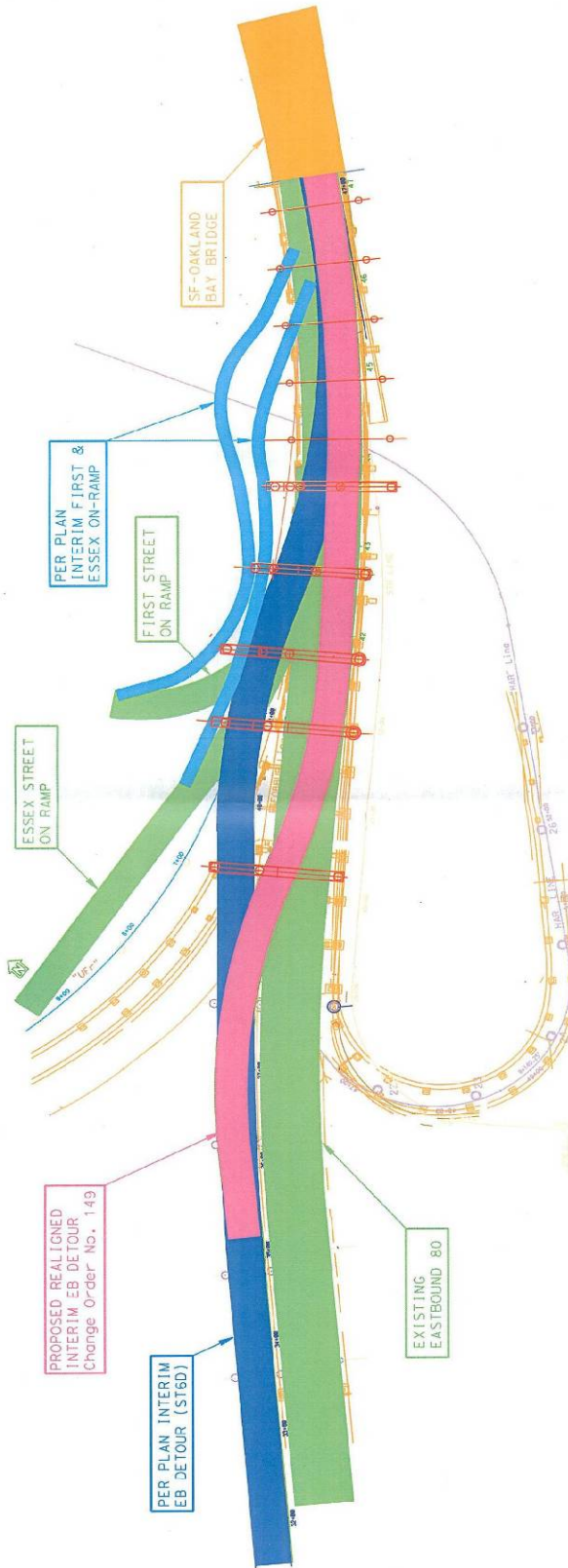
*W3L*



*WTI Phase 1 - Staging Area*

# SFOBB West Approach Replacement Project

## WEST APPROACH (EA 04-0435V4) REALIGNMENT OF ST6D STAGE 5 DETOUR



## SFOBB West Approach Replacement Project (Cont'd.)



*West Approach Demo Upper deck Westbound (one)*



*West Approach Demo Upper deck Westbound (two)*



*West Approach New Harrison Off-ramp Falsework*



*West Approach Overhead View of the newly opened SD60 Ramp & the Old Eastbound 80 Structure*



*West Approach Overhead View of the newly opened SD60 Ramp & the Old Eastbound 80 Structure (Wider View)*



*West Approach Demolition Upper deck Westbound*

## SFOBB West Approach Replacement Project (Cont'd.)



*West Approach Overhead View*