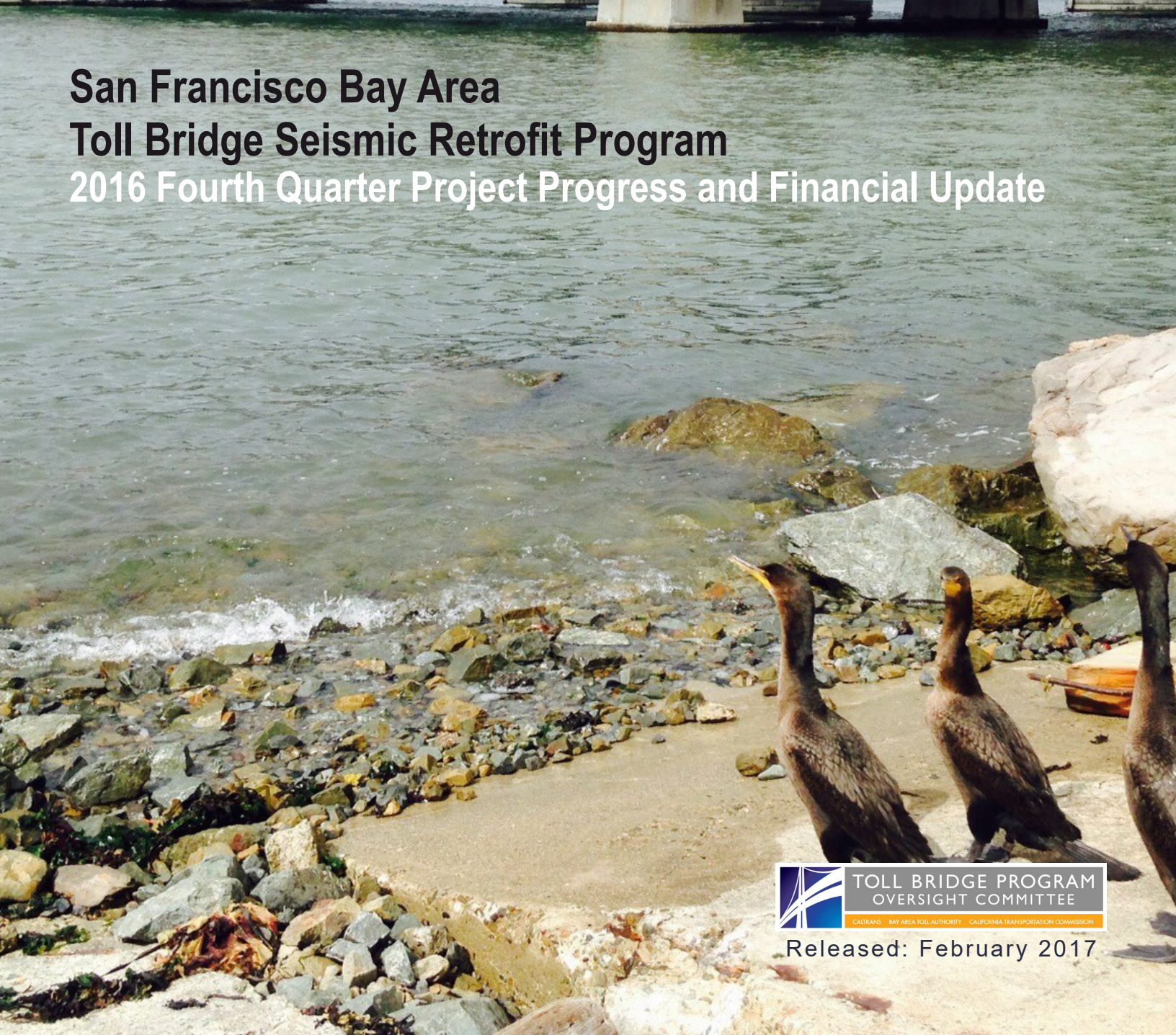
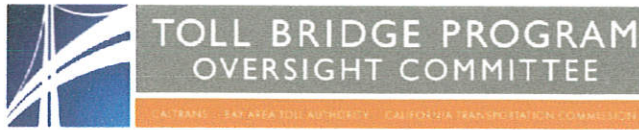




**San Francisco Bay Area
Toll Bridge Seismic Retrofit Program
2016 Fourth Quarter Project Progress and Financial Update**





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

February 10, 2017

Mr. Daniel Alvarez
Secretary of the Senate
State Capitol, Room 3044
Sacramento, CA 95814

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

Dear Messrs. Alvarez and Wilson:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2016 Fourth Quarter Project Progress and Financial Update, for the San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs (TBSRP and RM1), prepared pursuant to California Streets and Highways Code Section 30952.

The TBPOC was established by Assembly Bill 144 in 2005 to oversee the delivery of the TBSRP and consists of the Executive Director of the Bay Area Toll Authority (BATA), the Director of the California Department of Transportation (Caltrans), and the Executive Director of the California Transportation Commission (CTC). With the opening of the new east span of the San Francisco-Oakland Bay Bridge to traffic on September 2, 2013, all seven state-owned toll bridges in the Bay Area have now achieved seismic safety, either via retrofit, or replacement of existing structures.

Caltrans is proceeding with a number of contracts to remove the old east span of the SFOBB and complete remaining work on Yerba Buena Island (YBI). The YBI #2 contractor opened the pedestrian/bicycle pathway from the self-anchored suspension span to the island on October 23, 2016. The superstructure dismantling contractor has removed all five 504' superstructure trusses and has removed nine of fourteen 288' superstructure trusses. The remaining five 288' trusses should be removed by the end of March 2017. The marine foundation demolition contractor successfully imploded Piers E5 and E4 on October 15th and October 29th respectively.

Caltrans has obtained environmental approvals to remove the remaining marine foundations E6 to E18 by implosion and plans additional implosions over the next two years. However, removal of the superstructure trusses has advanced faster than expected, and provides Caltrans and its marine demolition contractor the opportunity to complete all implosions by the end of this year. Caltrans is currently seeking revised environmental approvals to implode all piers this year.

The legislature established the TBSRP to seismically retrofit seven state-owned long span toll bridges and provided an \$8.685 billion budget to accomplish the work. In 2010, the legislature added two additional long span bridges (Antioch & Dumbarton) to the TBSRP and augmented the program's budget by \$750 million, thus creating a nine bridge TBSRP with a \$9.435 billion budget. Based upon successful completion of the Antioch and Dumbarton Bridge seismic retrofits with substantial savings, and projected TBSRP risks for demolition of the old east span, the TBPOC reduced the TBPOC approved program budget by \$483 million, bringing the current TBPOC approved budget to \$8.952 billion.

On program risks, each contract has a contingency allowance within its budget. The sum of these contingency allowances is compared to the total of capital outlay, capital outlay support and program-wide risks. Any excess of the risks over the contingency allowances represents a potential draw on the program contingency. The program contingency is currently \$41.96 million in accordance with the TBPOC approved budget. As of the end of the fourth quarter of 2016, the 50 percent probable draw on program contingency is \$139 million. The potential draw ranges from \$80 million to \$200 million. Per the latest (December 2016) forecast, the \$8.952 billion TBPOC approved budget may be insufficient to cover the cost of identified risks and it is likely that BATA will need to allocate toll funds from its reserves to pay for the remaining TBSRP work. Should Caltrans be successful in getting environmental approvals to complete marine demolition in calendar year 2017, we expect forecasted risks and costs to be reduced significantly.

The TBPOC is committed to providing the Legislature and the CTC with comprehensive and timely reporting on the TBSRP. If there are any questions, or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,



MALCOLM DOUGHERTY
TBPOC Chair
Director
California Department of
Transportation

STEVE HEMINGER
Executive Director
Bay Area Toll Authority



SUSAN BRANSEN
Executive Director
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

February 10, 2017

Mr. Bob Alvarado, Chair
California Transportation Commission
1120 N Street, Room 2221
Sacramento, CA 95814

Ms. Fran Inman, Vice-Chair
California Transportation Commission
1120 N Street, Room 2221
Sacramento, CA 95814

Dear Mr. Alvarado and Ms. Inman:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2016 Fourth Quarter Project Progress and Financial Update, for the San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs (TBSRP and RM1), prepared pursuant to California Streets and Highways Code Section 30952.

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The TBPOC is committed to providing the Legislature and the CTC with comprehensive and timely reporting on the TBSRP. If there are any questions, or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,



MALCOLM DOUGHERTY
TBPOC Chair
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California Department of
Transportation

STEVE HEMINGER
Executive Director
Bay Area Toll Authority



SUSAN BRANSEN
Executive Director
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The Program Management Team (PMT):

Andrew Fremier
Bay Area Toll Authority
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Caltrans District 4 - Bay Area

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Caltrans, SFOBB Chief Engineer

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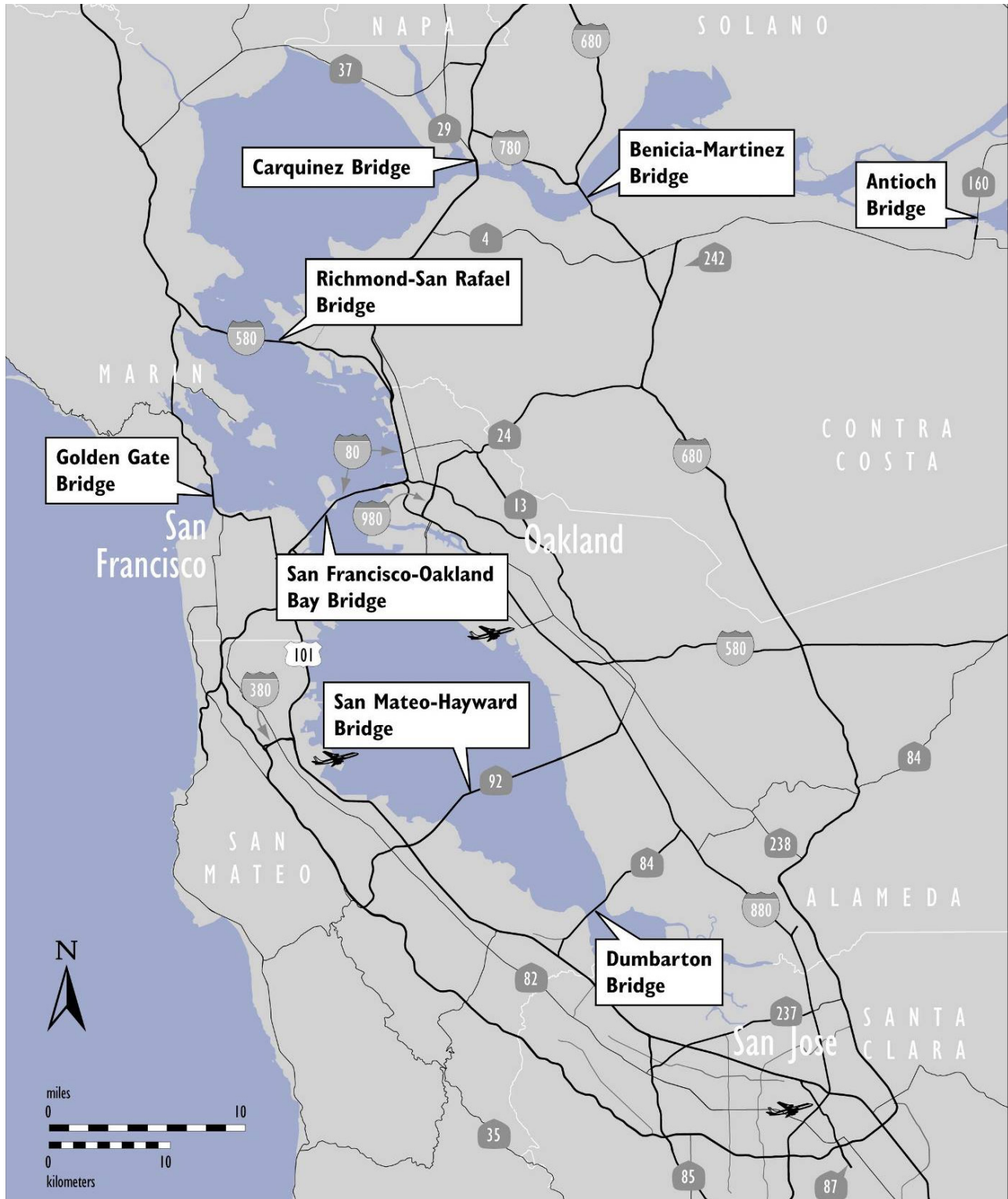
Cover photo and photos on page 15 - Lauren Bingham, Caltrans
Table of contents photo and photos on all other pages containing photos - Sam Burbank

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San Francisco Bay Area Toll Bridges



* The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway and Transportation District.

San Francisco Bay Area Toll Bridges

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program (TBSRP) projects. The TBPOC consists of the Director of the California 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 project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the TBPOC), and keeping the Legislature and others apprised of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current TBSRP is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Bridge Seismic Retrofit	Complete
Antioch Bridge Seismic Retrofit	Complete
San Francisco-Oakland Bay Bridge East Span Replacement	Complete*
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

* The seismic safety opening of the bridge occurred in September 2013. Remaining work on the project is the removal of the old bridge structure.



Looking west toward Yerba Buena Island between the Skyway Bridges.

Toll Bridge Seismic Retrofit Program Cost Summary (Millions)

	Contract Status	AB 144/ SB 66/ AB 1175 Budget	TBPOC Approved Changes	Current TBPOC Approved Budget (Dec 2016)	Cost to Date (Dec 2016)	Current Cost Forecast (Dec 2016)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(55.8)	1,237.2	1,235.6	1,235.6	(1.6)	●
SAS Tower Anchor Rod Grouting	Construction			12.0	2.0	10.3	(1.7)	●
SAS Marine Foundations	Completed	313.5	(38.7)	274.8	274.8	274.8	-	●
SAS Superstructure	Completed	1,753.7	281.1	2,034.8	1,973.0	2,037.0	2.2	●
YBI Detour	Completed	131.9	341.4	473.3	473.4	473.3	-	●
YBI Transition Structures (YBITS)		299.3	8.8	308.1	280.0	319.9	11.8	
YBITS 1	Completed			203.7	202.5	203.8	0.1	●
YBITS 2	Construction			101.1	77.5	113.9	12.8	●
YBITS Landscaping	Design			3.3	-	2.2	(1.1)	●
Oakland Touchdown (OTD)		283.8	46.8	330.6	326.5	329.7	(0.9)	
OTD 1	Completed			205.3	202.8	205.3	-	●
OTD 2	Completed			72.6	71.2	71.9	(0.7)	●
Detour	Completed			47.0	46.7	46.8	(0.2)	●
OTD Electrical Systems	Design			-	-	-	-	●
Submerged Electric Cable	Completed			5.7	5.7	5.7	-	●
Existing Bridge Dismantling		239.2	80.8	320.0	191.6	376.7	56.7	
Cantilever Section	Completed			69.0	68.5	69.0		●
504/288 Sections	Construction			103.5	63.2	84.3		●
Marine Foundations				147.5	59.9	223.4		
Pier-3 Demonstration Project	Completed			17.5	16.8	17.5		●
Remaining Marine Foundations	Construction			130.0	43.1	205.9		●
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.9	16.9	(1.4)	●
Other Completed Projects	Completed	90.4	(0.5)	89.9	90.0	90.0	0.1	●
Capital Outlay Support		959.3	369.2	1,328.5	1,308.3	1,391.4	62.9	●
Right-of-Way and Envir. Mitigation		72.4	-	72.4	60.9	70.0	(2.4)	●
Other Budgeted Capital		35.1	(32.8)	2.3	0.7	2.3	-	●
Total SFOBB East Span Replacement		5,486.6	1,015.6	6,502.2	6,233.7	6,627.9	125.7	●
Antioch Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Completed	-	24.1	24.1	24.1	24.1	-	●
Capital Outlay Support		-	47.0	47.0	47.0	47.0	-	●
Total Antioch Bridge Seismic Retrofit		267.0	71.1	71.1	71.1	71.1	-	●
Dumbarton Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Completed	-	46.0	46.0	47.4	47.4	1.4	●
Capital Outlay Support		-	66.4	66.4	64.4	65.0	(1.4)	●
Total Dumbarton Bridge Seismic Retrofit		483.0	112.4	112.4	111.8	112.4	-	●
Program Completed Projects	Completed	2,268.4	(74.1)	2,194.3	2,168.9	2,174.5	(19.8)	
Miscellaneous Program Costs		30.0	-	30.0	25.5	30.0	-	●
Net Programmatic Risks		-	-	-	-	33.3	33.3	●
Program Contingency*		900.0	(858.0)	42.0	-	-	(42.0)	●
Total Toll Bridge Seismic Retrofit Program*		9,435.0	(483.0)	8,952.0	8,611.1	9,049.2	97.2	●

*AB144/SB66 established a funding level of \$8.685 Billion in July 2005 for TBSRP, AB1175 added the retrofitting of the Antioch and Dumbarton Bridges in January 2010, providing another \$750 million in funding, bringing Total Toll Seismic Retrofit Program funding to \$9.435 Billion. Since 2010, \$483 million has been removed from the program, bringing the current TBPOC Approved Budget to \$8.952 Billion. The \$483 million removed consisted of:

Antioch Savings (4/12/10) \$137 million - Dumbarton Savings (9/02/10) \$216 million - Program Contingency Redirection (11/05/13) \$130 million, the current TBPOC approved Program Budget is \$8,952 million.

** (Due to the rounding of numbers, the totals above are show within \$0.02).

Toll Bridge Seismic Retrofit Program Schedule Summary

	AB 144/SB 66 Project Completion Schedule Baseline (July 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (Dec 2016)	Current Completion Forecast (Dec 2016)	Schedule Variance (Months)	
	g	h	i=g+h	j	k=j-i	l
SFOBB East Span Seismic Replacement						
Contract Completion						
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●
SAS Superstructure	Mar 2012	42	Sep 2015	Sep 2015	-	●
YBI Detour	Jul 2007	39	Oct 2010	Oct 2010	-	●
YBI Transition Structures (YBITS)	Nov 2013	36			-	
YBITS 1			Feb 2014	Feb 2014	-	●
YBITS 2			Jun 2017	Jun 2017	-	●
Oakland Touchdown	Nov 2013	10				
OTD 1			Jun 2010	Jun 2010	-	●
OTD 2			Sep 2015	Sep 2015	-	●
Submerged Electric Cable			Jan 2008	Jan 2008	-	●
Existing Bridge Dismantling	Sep 2014	51	Dec 2018	Dec 2018	-	●
Cantilever Section ⁽²⁾			Jul 2015	Jul 2015		●
504/288 Sections			Mar 2018	Jul 2017		●
Marine Foundations						
E3 Foundation Removal Demo Project			Jan 2016	Jan 2016		●
E4 - E18 Foundation Removal			Dec 2018	Dec 2018		●
Stormwater Treatment Measures			Mar 2008	Mar 2008	-	●
SFOBB East Span Bridge Opening and Other Milestones						
Westbound Seismic Safety Open	Sep 2011	24	Sep 2013	Sep 2013	-	●
Eastbound Seismic Safety Open	Sep 2012	12	Sep 2013	Sep 2013	-	●
Bike/Ped Path to YBI Landing			Dec 2015	Oct 2016	(10)	●
Eastbound On-Ramp			Jun 2016	Jun 2016		●

- Within approved schedule and budget
- Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
- Known project impacts with forthcoming changes to approved schedules and budgets

San Francisco-Oakland Bay Bridge East Span Replacement Project

Seismic Retrofit

Rather than a seismic retrofit, the two-mile long east span of the San Francisco-Oakland Bay Bridge has been completely rebuilt. The new east span consists of several different sections, yet appears as a single streamlined span. The eastbound and westbound lanes of the east span no longer include upper and lower decks. The lanes are side-by-side, providing motorists with expansive views of the bay. These views are also enjoyed by bicyclists and pedestrians, thanks to a new bicycle/pedestrian path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span features the world's longest Self-Anchored Suspension (SAS) bridge that connects to an elegant roadway supported by piers (Skyway), which gradually slopes down toward the Oakland shoreline (Oakland Touchdown).

Bay Bridge East Span Self-Anchored Suspension and Skyway (looking east).



San Francisco-Oakland Bay Bridge East Span Replacement Project

Yerba Buena Island Transition Structures (YBITS)

YBITS 2 - Eastbound On-Ramp and Cantilever Dismantling Contract

Approved Capital Outlay Budget: \$92.4 M & \$69.0 M

Contractor: CEC & Silverado, JV

Status: 86% Complete as of December 2016

The YBITS 2 contract involves dismantling the detour viaduct, constructing a new eastbound on-ramp to the bridge, completing the bicycle/pedestrian path to Yerba Buena Island, and dismantling of the cantilever.

The contract was awarded to California Engineering Contractors Inc/Silverado Contractors Inc., Joint Venture on November 28, 2012. Initial startup activities and submittals began in March 2013, with actual dismantling starting after the seismic safety opening on Labor Day weekend 2013.

Status: Cantilever removal was completed in July 2015. The eastbound on-ramp was opened June 2, 2016. The pedestrian/bicycle path opened October 2016. Work on YBI Slope Embankment on Yerba Buena Island is ongoing.



San Francisco-Oakland Bay Bridge East Span Replacement Project

Former East Span Bridge Dismantling 504'/288' Superstructure Dismantling

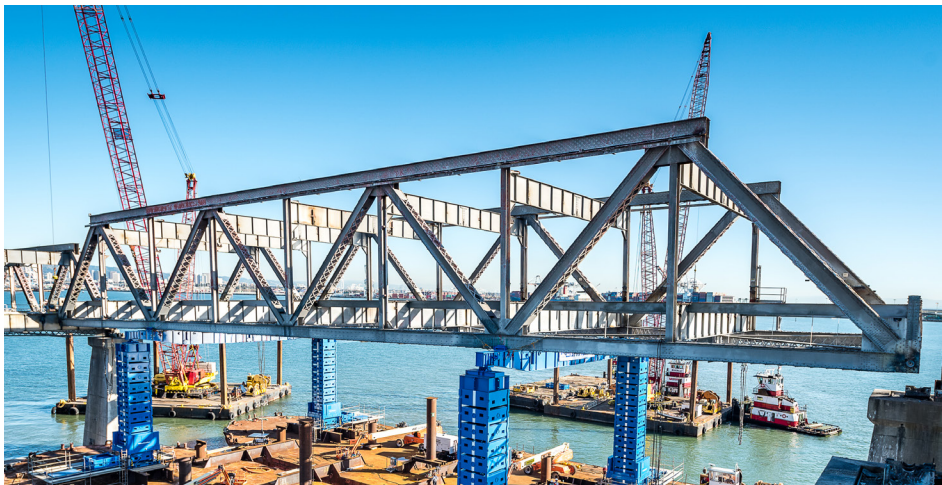
Approved Capital Outlay Budget: \$103.5 M

Contractor: CEC & Silverado JV

Status: 75% Complete as of December 2016

The contractor sequenced the bridge removal operations into seven phases of dismantling. These phases begin with the upper deck and initial truss removal operations, through the removal of the 504' and 288' steel truss spans, to the removal of the supporting steel columns.

Status: The upper deck of the old span was removed to lighten the bridge. The first 504' main truss (out of five) was lowered down to barges in February 2016, and the last 504' section was lowered in August 2016. The first out of fourteen 288' sections was lowered in November 2016, as of the end of December 2016, six out of fourteen 288' sections have been lowered.



Lowering of 288' truss sections.



San Francisco-Oakland Bay Bridge East Span Replacement Project

Former East Span Bridge Dismantling Marine Foundations Removal

Approved Capital Outlay Budget:

\$17.5 M for Pier E3

\$130 M for Piers E4 - E18

Contractor: Kiewit/Manson

The original east span of the San Francisco-Oakland Bay Bridge was supported by 21 in-water bridge piers, Piers E2 through E22, along with land based piers at Yerba Buena Island and Oakland. Part of this project is the demolition of Pier E3, which is located 1,535 feet east of Yerba Buena Island and on the east side of a 50-foot deep navigation channel.

The original authorization covered the dismantling of the piers via mechanical means such as saw cutting, flame cutting, mechanical splitting or pulverizing, and hydro-cutting, but did not cover the use of controlled implosion.

Caltrans proposed to remove Pier E3 as a pilot/demonstration project for the effective use of controlled charges to remove the marine foundations of the original SFOBB. Dismantling of Pier E3 used controlled charges and was completed in four phases: 1) mechanical dismantling of pier cap and fender system, 2) drilling of bore holes into caisson and buttress walls and installing a blast attenuation system (BAS), 3) installing charges, activating the BAS and imploding the pier, and 4) management and removal of remaining dismantling pier debris. The pier was removed to -51 feet.

Mechanical dismantling would have required the installation of a cofferdam around Pier E3, which would have required 394 piles of various types. Pile driving alone would take approximately four years, while the four phases of the demonstration project would occur within six months. Using this method is a significant cost risk to the program.

The marine foundation removal is a CMGC (Construction Manager / General Contractor) contract and the selected CMGC contractor is a Kiewit Manson team (KM).



Marine foundation demolition.

Piers E4 - E5:

The contract was awarded to the KM team in April 2016. Marine foundations E5 and E4 were demolished by implosion in October 2016. Caltrans obtained environmental permits to remove marine foundations E4 through E18 by implosion. The removal of the superstructure trusses has advanced faster than expected, and provides Caltrans and their marine demolition contractor the opportunity to complete all implosions by the end of this year. Caltrans is currently seeking environmental approvals to implode all piers this year, and in parallel, is seeking permits from resource agencies for a "retain in place" for Foundations E2, and E19 through E23.

San Francisco-Oakland Bay Bridge East Span Replacement Project

Self-Anchored Suspension Bridge Superstructure Contract

Approved Capital Outlay Budget: \$2.05 B

Contractor: American Bridge/Fluor Enterprises, JV

Status: 100% Completed

The self-anchored suspension span (SAS) of the bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in bedrock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there appears to be two main cables on the SAS, it is actually a single continuous cable. This single cable is anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single-steel tower is made up of four separate legs connected by shear link beams, which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs



Self-Anchored Suspension Bridge Superstructure.

Status: The TBPOC authorized Caltrans to close out the Self-Anchored Suspension (SAS) span contract with the joint venture of American Bridge/Fluor (ABF). The contract is to be closed out under the terms and conditions consistent with the findings of the July 2013 TBPOC meeting investigative report that found three parties – the contractor, designer, and Caltrans – responsible for the failure of the high-strength rods on the east pier (E2) of the SAS, and the \$24 million cost of the “saddle retrofit” repair. The contract was accepted in September 2015 and is currently under the Public Works Arbitration Program, where the contractor’s claim will be reviewed.

In May 2016, the Toll Bridge Program Oversight Committee (TBPOC) approved the re-grouting of the tower anchor rods based on recommendations from Caltrans and the peer review group. A contract for \$8.5 million was expeditiously awarded to the apparent low bidder on October 10, 2016, work is progressing in the field.

Risk Management Program Update

POTENTIAL DRAW ON PROGRAM RESERVE (PROGRAM CONTINGENCY)

Caltrans continues to implement comprehensive risk management on all TBSRP projects in accordance with AB 144. Cost Risk response efforts continue to focus on mitigating the estimated cost and schedule impacts of identified risks. The “bottom line” of cost risk analysis is whether the Program Contingency remains adequate to cover all identified risks.

Each contract has a contingency allowance within its budget. The sum of these contingency allowances is compared to the total of capital outlay, capital outlay support and program-wide risks. Any excess of the risks over the contingency allowances represents a potential draw on the program contingency. The program contingency, as of the fourth quarter 2016, is currently \$41.96 million in accordance with the TBPOC approved budget. As of the end of the fourth quarter of 2016, the 50 percent probable draw on program contingency is \$139 million. The potential draw ranges from about \$80 million to \$200 million (refer to Figure 1). The \$139 million probable draw on program contingency gives a forecast deficit of \$97 million at program completion to the current approved program budget. This represents a \$12 million improvement in the programs bottom line since last quarter. The bottom line trend has been improving for the last four quarters, with the forecast deficit decreasing by \$46.2 million (32%) since it peaked at \$143.2 million in the third quarter of 2015.

Since 2010, \$483 million was removed from the TBSRP bringing the current approved program budget to \$8.952 billion. The program contingency is currently insufficient to cover the cost of identified risks and it is likely that BATA will need to allocate additional toll funds from its reserves to pay for the remainder of the work.

RISK MANAGEMENT DEVELOPMENTS

SFOBB East Span COS Budget

Budget To Completion: The fourth quarter 2016 COS forecast to completion is \$1,391.3 million, which results in a cost variance of \$62.5 million to the current budget. This is a \$1.3 million improvement over the last quarter and a \$13.5 million improvement over the Q4 2015 forecast, when the COS forecast peaked out at \$1,404.8 million. The current approved budget of \$1,328.5 million for SFOBB East Span COS will fund the program COS through the end of the 2016/17 fiscal year.

Expenditures vs. Budget for first half of the 2016/17

Fiscal Year: On September 8, 2016 the TBPOC approved a revised total COS budget of \$23.0 million for 16/17 fiscal year. For the first half of the 2016/17 fiscal year, actual expenditures are estimated at \$8.9 million. Expenditures through December 31, 2016 were within the approved budget for the first half of fiscal year 2016/17.

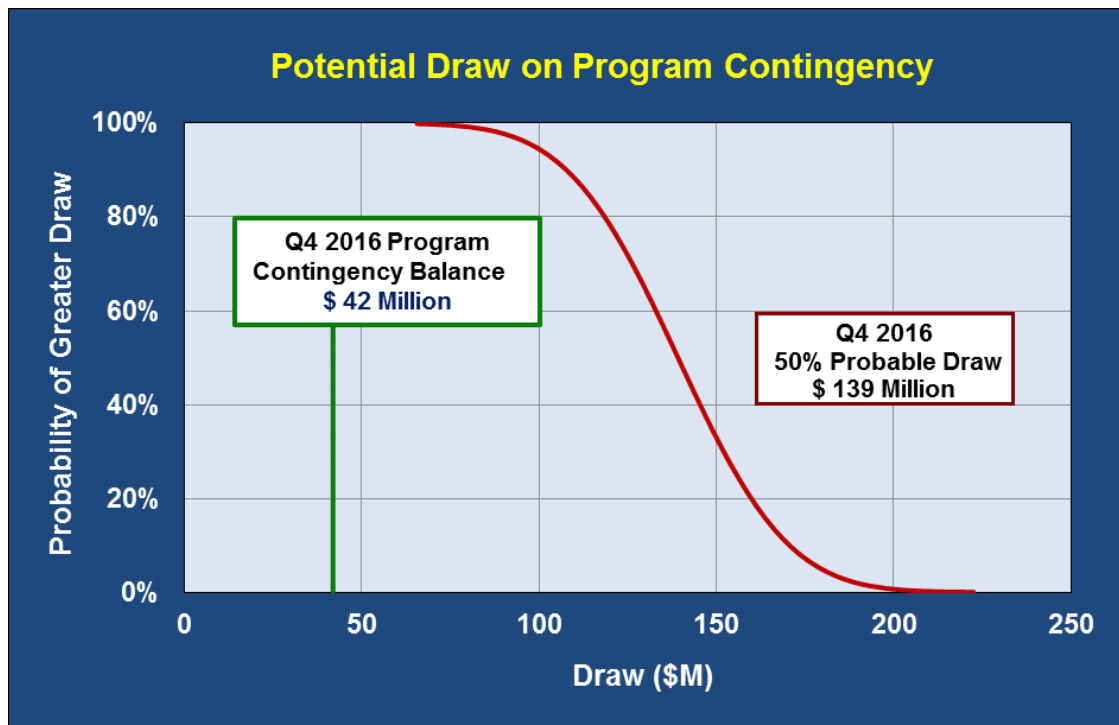


Figure 1 – Potential Draw on Program Contingency¹

1. Proposed architectural enhancements and project improvements are excluded unless approved by the TBPOC.

Self-Anchored Suspension Span Contract

Contract Close Out: The SAS contract was accepted on September 24, 2015. The estimate after acceptance included several deductions as credit for issues that Caltrans determined were the responsibility of the contractor. The proposed final estimate was forwarded to the contractor on November 5, 2015 and since the total amount paid exceeded the amount due by \$8.5 million, the contractor owed a payment to the Department for that amount. The contractor submitted his exceptions to the proposed final estimate on November 6, 2015. The contractor documented twelve outstanding disputes totaling \$49.2 million in claims and filed for arbitration on May 23, 2016. The claims are now subject to the Public Works Contract Arbitration Program and could take many quarters to reach a conclusion.

SAS Tower Anchor Rod Grouting Contract

Award of Contract: The scope of work for the repair of the Tower Anchor Rod Grouting was approved by the TBPOC on May 12, 2016. The TBPOC authorized \$12 million in Capital funds and \$3 million in COS costs to inspect and administer that contract. The Department procured the contract with a low bid Director's Order (a Caltrans first), this helps expedite the work, yet achieves the best price possible. A contract for \$8.5 million was expeditiously awarded to the apparent low bidder on October 10, 2016, work is progressing in the field.

Yerba Buena Island Transition Structure #2 Contract

Goat Slope: The construction team and the Contractor have not been able to come to an agreement on a lump-sum price for CCO #44 (for which the TBPOC had approved a capital budget of \$5.2 million). If the construction team cannot come to agreement on this extra work, the project team will complete the remaining contract work as soon as possible on the YBITS2 contract. Meanwhile, the project team, will evaluate an option to break out the CCO work and possibly procure it in a separate contract in order to secure the best price for the work.

Southgate Road Realignment Alternative: Meetings between all the stakeholders on Yerba Buena Island identified a more efficient alternative for routing traffic on Southgate Rd. This alternative will significantly increase the level of service of the on-ramp and off-ramps to I-80. The City of San Francisco developed this proposal to realign Southgate Rd. and it was approved by the TBPOC on May 12, 2016. The City will incorporate the work in a City of San Francisco contract. The proposal significantly reduced future risks on the YBITS #2 contract.

504'/288' Dismantling Contract

Successful Removal of six 288' Trusses: The successful removal of the first six 288' spans of the superstructure will allow the contractor to deliver the marine footings to the Marine Foundations Removal contractor well ahead of the contract milestones. It is likely the contractor will be finished with construction early in the third quarter of 2017 instead of the contractual date in the first quarter of 2018. This will allow the program to achieve significant COS savings on the 504'/288' Dismantling Contract and also potentially advance the Marine Foundation Removal E4 to E18 contract to completion in 2017.

Marine Foundation Removal Contract

Successful Removal of E4 & E5: Piers E4 and E5 were successful imploded in the fourth quarter of 2016. Pier E5 was demolished on October 15, 2016 at 11:57AM and Pier E4 on October 29, 2016 at 11:23AM. The Blast Attenuation System (a.k.a. the bubble curtain) was deployed prior to the implosions and operated correctly during each implosion. Department biologists monitored for birds, marine mammals, noise levels, and water quality prior to, during, and following the implosion. The Department also conducted a caged fish study, fish collection, and bird predation monitoring to assess impacts



to fish. Hydrographic surveys were conducted following the implosions to aid in clean-up efforts, which were completed on November 30, 2016. Overall, no impacts to special-status species were observed by biological monitors as a result of the implosions of Piers E4 or E5 and the work was completed within the allotted budget and schedule.

Programmatic Risks

Programmatic Risks: Consists of the probable cost of the program risk register plus an adjustment for deck joint repairs carried out on the Richmond-San Rafael Bridge seismic retrofit contract in 2005. The program-level risk register contains risks that may affect several contracts, and are not specific to a particular contract. A program risk might get transferred to a project risk register in the future, if a risk occurs, its cost impact might be moved to a future change order on the appropriate contract risk register, and then the risk will be retired from the program-level risk register. The program risk currently contains sixteen risks and one opportunity, with a total probable cost of \$16.4 million. Programmatic risks also accounts for \$16.9 million in Richmond-San Rafael (R/SR) Bridge project contingency used for R/SR Bridge deck joint replacement in early 2005. The programmatic risk has captured this cost since 2005.



Demolition work on the original truss bridge.

RISK MANAGEMENT LOOK AHEAD

Self-Anchored Suspension Span Contract

The contract close-out effort will continue. The support cost budget will continue to accrue until final close-out is achieved.

Yerba Buena Island Transition Structure #2 Contract Change Order Negotiations:

The project team will continue to negotiate the cost of the proposed additional Goat Slope work (i.e. CCO #44). As a result of the deletion of the Southgate Rd. work, the actual contract completion may be brought forward by several weeks from the current scheduled completion date. This change will also help mitigate any future delays of the YBITS #2 contract.

504'/288' Dismantling Contract

Removal of All the Superstructure: The removal of the last of the superstructure steel is now expected to occur by early May 2017, well ahead of the contract milestones, this will give the program an opportunity to advance the work and finish the Marine Foundation Removal one year early.

Marine Foundation Removal Contract

Advancing All Implosions (E6 through E18) into 2017:

The demolition work to date has proven to be completed well and offers opportunities for the remaining piers to be removed from the waters of the bay with environmental stewardship and efficiency. Current contract condition schedule the implosions of Piers E6 through E11 during September 1, 2017 through November 30, 2017 and Piers E12 through E18 during September 1, 2018 through November 30, 2018. These dates were established based on the contracted date for the 504-288 contractor to deliver the last pier to the State in March 2018. With the high level of success on the demolition of the old bridge to date, a new opportunity has become available to complete the work imploding Piers E6 through E18 an entire year early. The project team will work with the Contractor, the environmental agencies and the TBPOC to avail of this opportunity that will significantly reduce COS costs going forward.

SFOBB East Span COS Budget

Budget Increase: The current approved budget of \$1,328.5 million for SFOBB East Span COS will run out in the third quarter of 2017. In the second quarter of 2017, BATA will need to approve the TBPOC approved 2017/18 COS allocation and an increase in the overall SFOBB East Span COS budget by a commensurate amount. Additional budget adjustments from program contingency will be required for each fiscal year through program completion.

Program Funding Status

AB 144 established a funding level of \$8.685 billion for the TBSRP. As of January 1, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175, which provided another \$750 million bringing the total funding to \$9.435 billion. On April 9, 2010, the TBPOC approved a \$137 million reduction in the TBSRP program budget as a result of savings from the Antioch Bridge Retrofit. On September 2, 2010, the TBPOC approved a \$216 million reduction in the TBSRP program budget as a result of savings from the Dumbarton Bridge Retrofit. And finally, on November 5, 2013, the TBPOC approved a \$130 million reduction in the TBSRP program budget as a result of a reduction in the program contingency, bringing the current approved TBSRP budget to \$8.952 billion (see Appendix A-1). The program funding sources are shown in Table 1 - Program Budget.

Table 1 - Program Budget as of December 31, 2016	Budgeted	Funding Available & Contribution
Financing		
Seismic Surcharge Revenue AB 1171	2,282.0	2,282.0
Seismic Surcharge Revenue AB 144	2,150.0	2,150.0
Seismic Surcharge Revenue AB 1175 ⁽²⁾	750.0	750.0
BATA Consolidation	820.0	820.0
Subtotal - Financing	6,002.0	6,002.0
Contributions		
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 ⁽¹⁾	745.0	745.0
Public Transportation Account ⁽¹⁾	130.0	130.0
ITIP/SHOPP/Federal Contingency ⁽³⁾	448.0	448.0
Federal Highway Bridge Replacement and Rehabilitation (HBRR) ⁽³⁾	642.0	642.0
SHA - East Span Dismantling	300.0	300.0
SHA - "Efficiency Savings"	130.0	130.0
Redirect Spillover	125.0	125.0
Motor Vehicle Account	75.0	75.0
Subtotal - Contribution	3,433.0	3,423.9
Total Funding	9,435.0	9,425.9
Encumbered to Date		8,814.6
Remaining Unallocated		611.3
Expenditures :		
Capital Outlay		6,740.2
State Operations		1,856.3
Antioch and Dumbarton Expenditures by BATA		14.6
	Total Expenditures	8,611.1
Encumbrances :		
Capital Outlay		199.7
State Operations		3.9
	Total Encumbrances	203.5
Total Expenditures and Encumbrances		8,814.6
⁽¹⁾ The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.		
⁽²⁾ As of January 1, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175.		
⁽³⁾ The Skyway contract is the only contract in the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project with federal funds. The Federal Aid Project No. is 0801(090) for the amount of \$321,645,209.22. No other federal funds will be used on this project in the future.		

Summary of the Toll Bridge Oversight Committee (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 3 -Toll Bridge Program Oversight Committee Estimated Expenses: July 1, 2005, through December 31, 2016, for TBPOC functioning, support, and monthly and quarterly reporting.

**Table 2—CTC Toll Bridge Seismic Retrofit Program Contributions Adopted December 2005
Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ Millions)**

Source	Description	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Actual)	2009-10 (Actual)	2010-11 (Actual)	2011-12 (Actual)	2012-13 (Actual)	2013-14 (Actual)	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
	Total	547	273	100	43	99	153	150	165	300	1830

* Caltrans Efficiency Savings
 ** SFOBB East Span Dismantling Cost. The last contribution of \$300 million from SHA was made in October 2013 as scheduled.

**Table 3—Toll Bridge Program Oversight Committee
Estimated Expenses: July 1, 2005 through December 31, 2016 (\$ Millions)**

Agency/Program Activity	Expenses
BATA	3.0
Caltrans	3.5
CTC	3.3
Reporting	5.9
Total Program	15.7

Quarterly Environmental Compliance Highlights

Overall environmental compliance for the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (SFOBB Project) has been a major success during the fourth quarter of 2016. The tasks for the current quarter were focused on compliance, monitoring, and environmental permitting.

Key Successes

Bird monitoring was conducted weekly in compliance with the project's Bird Monitoring Plans. The goal of this monitoring was to document potential impacts to birds from construction activities. Monitors did not observe any indication that birds were disturbed due to the original east span dismantling activities.

Bird deterrents were installed on the SFOBB original east span in the 504/288 contract and Marine Foundation contract areas in December 2016 in preparation for the 2017 nesting season. Meetings have been held periodically throughout the quarter between Caltrans and the 504/288 contractor to discuss bird management issues and the ongoing strategy for the installation of nesting bird impact avoidance management measures.

The environmental team worked closely with the overall project team to ensure compliance with the regulatory requirements associated with permits and approvals authorizing pier implosion. These approvals include California Department of Fish and Wildlife (CDFW) Incidental Take Permit Major Amendment No. 5 (issued August 4, 2016), National Marine Fisheries Service (NMFS) Biological Opinion (issued August 24, 2016), Bay Conservation and Development Commission (BCDC) Amendments No. 40 and 41 (issued June 21 and September 2, 2016), United States Army Corps of Engineers (USACE) Letters of Modification (issued June 27 and September 2, 2016), and NMFS Incidental Harassment Authorization (issued September 15, 2016).

The environmental team performed biological monitoring in support of the Piers E4 and E5 test blasts conducted on October 7, 2016 as part of the Marine Foundation contract. Test blasts were conducted to ensure proper functionality of the hydroacoustic data acquisition systems, prior to the actual blasts. During the test blasts, Caltrans biologists monitored birds, marine mammals, noise levels, and water quality. Caged fish study and Blast Attenuation System (BAS) trials were also conducted. No issues were noted and reports were sent to relevant regulatory agencies, where necessary.

The environmental team performed biological monitoring in support of the implosions of Piers E4 and E5, which took place on October 15, 2016 at 11:57AM (Pier E5) and on October 29, 2016 at 11:23AM (Pier E4). The BAS was deployed prior to the implosions and operated correctly during each implosion. Caltrans biologists monitored for birds, marine mammals, noise levels, and water quality

prior to, during, and following the implosion. Caltrans also conducted a caged fish study, fish collection, and bird predation monitoring to assess impacts to fish. Hydrographic surveys were conducted following the implosions to aid in clean-up efforts, which were completed on November 30, 2016. Overall, no impacts to special-status species were observed by biological monitors as a result of the implosions of Piers E4 or E5.

The environmental team provided preliminary monitoring results from the implosions of Piers E4 and Pier E5 to applicable regulatory agencies throughout the end of the 4th quarter of 2016. The environmental team also began preparation of the Piers E4 and E5 Post-Implosion Report. This report will summarize the implosions of Pier E4 and Pier E5, as well as the associated hydroacoustic monitoring, fisheries monitoring, marine mammal monitoring, bird monitoring, infill sedimentation, and water quality monitoring results. The post-implosion report will be submitted to the regulatory agencies in early 2017.

The environmental team began work on renewing the Incidental Harassment Authorization (IHA) during the fourth quarter of 2016. This IHA will authorize limited take of marine mammals resulting from pile driving and implosion activities. The final permit application will be submitted to NOAA in 2017.

The environmental team worked with the overall project team to develop a plan for early completion of marine foundation removal contract during the 4th quarter of 2016. The environmental team analyzed potential impacts on listed species that may result from activities associated with the early completion proposal. Teleconferences were held with natural resource agencies (i.e., NOAA, USACE, CDFW, BCDC, and RWQCB) to discuss the proposal. The environmental team, in reviewing the project permits, determined that NMFS approval was required to begin mechanical demolition of the piers prior to June 1, 2017. The environmental team submitted a letter on December 16, 2016 to NMFS requesting authorization for this work.

The environmental team, at the request of the Bay Area Toll Authority and the Toll Bridge Program Oversight Committee, continued to support the analysis associated with retention of Piers E2 and Piers E19 to E23 of the SFOBB original east span during the 4th quarter of 2016. Work continued on a conceptual design for public access and possible mitigation to offset the in-water fill that the project is required to remove under its current permit.



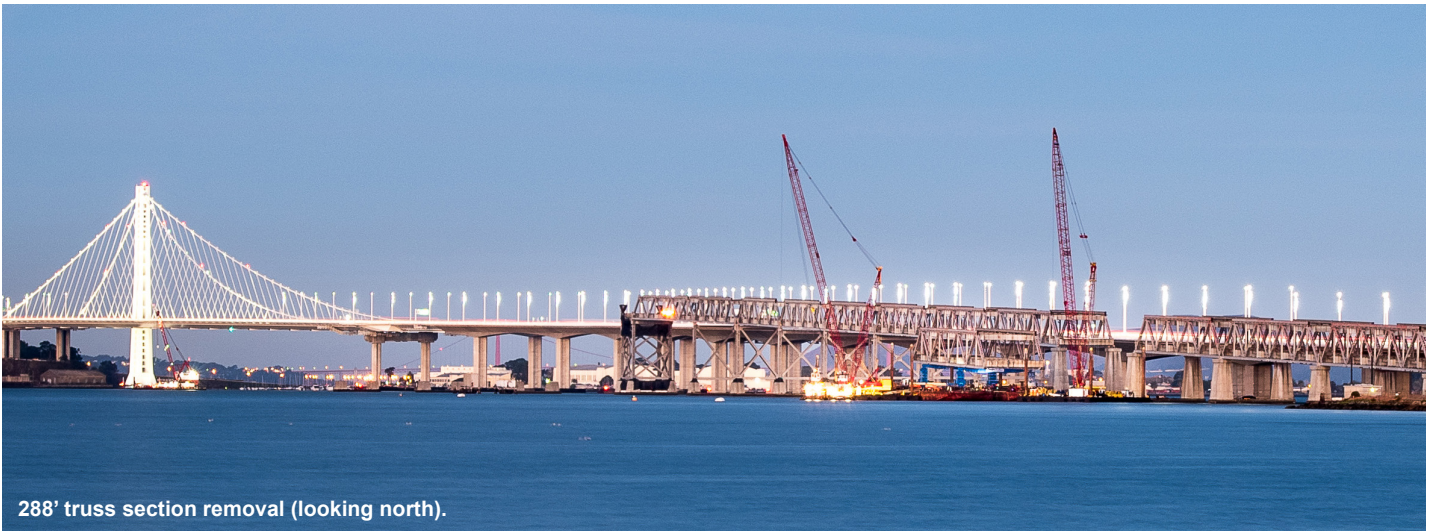
Birds released into the bay after being rescued from the Bridge. The International Bird Rescue raised the birds until they could fly on their own.

Photos courtesy of Caltrans





288' truss section removal (looking south).



288' truss section removal (looking north).

Appendices

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B. TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through December 31, 2016.....	22
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Appendix A-1: TBSRP AB 144/SB 66/AB 1175 Baseline Budget, Forecasts and Expenditures Through December 31, 2016, by bridge including program contingency (\$ Millions)

Contract	AB 144/SB 66/AB 1175	Approved Changes	Current Approved Budget (12/2016)	Cost to Date (12/2016)	Cost Forecast (12/2016)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	369.2	1,328.5	1,308.3	1,391.4	62.9
Capital Outlay Construction	4,492.2	679.2	5,171.4	4,924.7	5,234.2	62.8
Other Budgeted Capital	35.1	(32.8)	2.3	0.7	2.3	-
Total	5,486.6	1,015.6	6,502.2	6,233.6	6,627.9	125.7
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	(0.5)	119.5	119.4	119.5	-
Capital Outlay Construction	309.0	31.0	340.0	333.0	338.1	(1.9)
Total	429.0	30.5	459.5	452.4	457.6	(1.9)
SFOBB West Span Retrofit						
Capital Outlay Support	75.0	(0.2)	74.8	74.8	74.8	-
Capital Outlay Construction	232.9	(2.4)	230.5	230.5	230.5	-
Total	307.9	(2.6)	305.3	305.3	305.3	-
Richmond-San Rafael Bridge Retrofit*						
Capital Outlay Support	134.0	(7.0)	127.0	126.8	127.0	-
Capital Outlay Construction	780.0	(94.9)	685.1	668.1	668.2	(16.9)
Total	914.0	(101.9)	812.1	794.9	795.2	-
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	0.1	28.8	28.8	28.8	-
Capital Outlay Construction	85.5	(0.1)	85.4	85.4	85.4	-
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	(0.1)	135.3	135.3	135.3	-
Total	163.5	(0.1)	163.4	163.4	163.4	-
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	42.0	(0.1)
Total	58.5	-	58.5	58.4	58.4	(0.1)
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	-	33.5	33.2	33.2	(0.3)
Capital Outlay Construction	70.0	-	70.0	69.4	69.4	(0.6)
Total	103.5	-	103.5	102.6	102.6	(0.9)

Appendix A-1: TBSRP AB 144/SB 66/AB 1175 Baseline Budget, Forecasts and Expenditures Cont. Through December 31, 2016, by bridge including program contingency (\$ Millions)

Contract	AB 144/SB 66/AB 1175	Approved Changes	Current Approved Budget (12/2016)	Cost to Date (12/2016)	Cost Forecast (12/2016)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	24.1	24.1	17.4	24.1	-
Capital Outlay Support by BATA				6.7		
Capital Outlay Construction	-	47.0	47.0	47.0	47.0	-
Total	267.0	71.1	71.1	71.1	71.1	-
Dumbarton Bridge						
Capital Outlay Support	-	46.0	46.0	39.5	47.4	1.4
Capital Outlay Support by BATA				7.9		
Capital Outlay Construction	-	66.4	66.4	64.4	65.0	(1.4)
Total	483.0	112.4	112.4	111.8	112.4	-
Subtotal Capital Outlay Support	1,682.9	182.0	1,864.8	1,845.3	1,928.8	64.0
Subtotal Capital Outlay	6,787.1	225.9	7,012.9	6,739.6	7,054.8	41.9
Subtotal Other Budgeted Capital	35.1	(32.8)	2.3	0.7	2.3	-
Miscellaneous Program Costs	30.0	-	30.0	25.5	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	8,535.0	375.0	8,910.0	8,611.1	9,015.9	105.9
Net Programmatic Risks**	-	-	-	-	33.3	33.3
Program Contingency	900.0	(858.0)	42.0	-	-	-
Total Toll Bridge Seismic Retrofit Program***	9,435.0	(483.0)	8,952.0	8,611.1	9,049.2	97.2
Forecast Deficit To Current TBPOC Approved Budget:					(97.2)	
Forecast Surplus To Total TBSRP Budget	385.8					
Forecast Deficit To Current TBPOC Approved Budget:			(97.2)			

* Budget for Richmond-San Rafael Bridge includes \$16.9 million of deck joint rehabilitation work that considered to be eligible for seismic retrofit program funding.

** Programmatic Risks: Consists of \$16.4 million in Q4 2016 Program Risk Register costs plus, \$16.9 in Richmond-San Rafael (R/SR) Bridge project contingency used for R/SR deck joint replacement.

*** AB144/SB66 established a funding level of \$8.685 Billion in July 2005 for TBSRP; AB1175 added the retrofitting of the Antioch and Dumbarton Bridges in January 2010, providing another \$750 million in funding, bringing Total Toll Seismic Retrofit Program funding to \$9.435 Billion. Since 2010, \$483 million has been removed from the program, bringing the current TBPOC Approved Budget to \$8.952 Billion. The \$483 million removed consisted of:

- Antioch Savings (4/12/10) \$137 million
- Dumbarton Savings (9/02/10) \$216 million
- Program Contingency Redirection (11/05/13) \$130 million, the current TBPOC approved Program Budget is \$8,952 million.

(Due to the rounding of numbers, the totals above are show within \$0.02)

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures

Through December 31, 2016, by major contract, without program contingency (\$ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and encumbrances as of (12/2016) see Note (1)	Estimated costs not yet spent or encumbered as of (12/2016)	Total Forecast as of (12/2016)
a	b	c	d	e	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.9	144.6	-	144.6
Capital Outlay	472.6	472.6	471.9	(0.1)	471.8
Total	617.5	617.5	616.5	(0.1)	616.4
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.8	0.2	127.0
Capital Outlay	698.0	685.1	667.5	0.7	668.2
Project Reserves	82.0	-	-	-	-
Total	914.0	812.1	794.3	0.9	795.2
West Span Retrofit					
Capital Outlay Support	75.0	74.8	74.8	-	74.8
Capital Outlay	232.9	230.5	227.4	3.1	230.5
Total	307.9	305.3	302.2	3.1	305.3
West Approach					
Capital Outlay Support	120.0	119.5	119.5	-	119.5
Capital Outlay	309.0	340.0	332.2	5.9	338.1
Total	429.0	459.5	451.7	5.9	457.6
SFOBB East Span -Skyway					
Capital Outlay Support	197.0	181.2	181.2	-	181.2
Capital Outlay	1,293.0	1,237.2	1,235.6	0.1	1,235.7
Total	1,490.0	1,418.4	1,416.8	0.1	1,416.9
SFOBB East Span -SAS- Superstructure					
Capital Outlay Support	214.6	489.1	512.9	5.8	518.7
Capital Outlay	1,753.7	2,034.8	2,046.9	(9.9)	2,037.0
Total	1,968.3	2,523.9	2,559.8	(4.1)	2,555.7
SFOBB East Span -SAS- Tower Anchor Rod Grouting					
Capital Outlay Support	-	3.0	0.5	2.8	3.3
Capital Outlay	-	12.0	9.2	1.1	10.3
Total	-	15.0	9.7	3.9	13.6
SFOBB East Span -SAS- Foundations					
Capital Outlay Support	62.5	37.6	37.6	-	37.6
Capital Outlay	339.9	301.3	301.3	-	301.3
Total	402.4	338.9	338.9	-	338.9
Small YBI Projects					
Capital Outlay Support	10.6	10.2	10.2	0.4	10.6
Capital Outlay	15.6	15.2	15.2	0.5	15.7
Total	26.2	25.4	25.4	0.9	26.3
YBI Detour					
Capital Outlay Support	29.5	87.7	87.9	(0.2)	87.7
Capital Outlay	131.9	473.3	473.4	(0.1)	473.3
Total	161.4	561.0	561.3	(0.3)	561.0

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures Cont.

Through December 31, 2016, by major contract, without program contingency (\$ Millions)

Contract	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and encumbrances as of (12/2016) see Note (1)	Estimated costs not yet spent or encumbered as of (12/2016)	Total Forecast as of (12/2016)
a	b	c	d	e	f = d + e
YBI - Transition Structures					
Capital Outlay Support	78.7	140.5	137.7	22.3	160.0
Capital Outlay	299.4	308.1	302.9	17.0	319.9
Total	378.1	448.6	440.6	39.3	479.9
Oakland Touchdown					
Capital Outlay Support	74.4	119.4	118.2	1.2	119.4
Capital Outlay	283.8	330.6	325.4	4.3	329.7
Total	358.2	450.0	443.6	5.5	449.1
East Span Other Small Project					
Capital Outlay Support	212.3	197.9	197.9	(0.1)	197.8
Capital Outlay	170.8	141.3	126.5	10.4	136.9
Total	383.1	339.2	324.4	10.3	334.7
Existing Bridge Demolition					
Capital Outlay Support	79.7	61.9	27.9	47.1	75.0
Capital Outlay	239.2	320.0	292.8	83.9	376.7
Total	318.9	381.9	320.7	131.0	451.7
Antioch Bridge					
Capital Outlay Support	-	24.1	17.4	-	17.4
Capital Outlay Support by BATA	-	-	6.7	-	6.7
Capital Outlay	-	47.0	47.0	-	47.0
Total	267.0	71.1	71.1	-	71.1
Dumbarton Bridge					
Capital Outlay Support	-	46.0	39.6	(0.1)	39.5
Capital Outlay Support by BATA	-	-	7.9	-	7.9
Capital Outlay	-	66.4	64.7	0.3	65.0
Total	483.0	112.4	112.2	0.2	112.4
Miscellaneous Program Costs	30.0	30.0	25.5	4.5	30.0
Total Capital Outlay Support ⁽²⁾	1,712.9	1,894.8	1,874.8	83.9	1,958.7
Total Capital Outlay	6,822.1	7,015.3	6,939.7	116.8	7,057.1
Program Total	8,535.0	8,910.1	8,814.5	201.3	9,015.9

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

(2) BSA provided a distribution of program contingency in December 2004 based on Bechtel Infrastructure Corporation input.

(3) Construction administration of the OTD Detour is under the YBITS1 contract. Encumbrance is included in YBITS1 contract.

(4) Construction administration of the cantilever segment is under the YBITS2 contract. Encumbrance is included in YBITS2 contract.

(Due to the rounding of numbers, the totals above are shown within \$0.02)

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures

Through December 31, 2016 (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2016)	Cost to Date (12/2016)	Cost Forecast (12/2016)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project						
East Span - SAS Superstructure						
Capital Outlay Support	214.6	274.5	489.1	511.5	518.7	29.6
Capital Outlay Construction	1,753.7	281.1	2,034.8	1,973.0	2,037.0	2.2
Total	1,968.3	555.6	2,523.9	2,484.5	2,555.7	31.8
SAS Tower Anchor Rod Grouting						
Capital Outlay Support	-	-	3.0	0.3	3.3	0.3
Capital Outlay Construction	-	-	12.0	2.0	10.3	(1.7)
Total	-	-	15.0	2.3	13.6	(1.4)
SAS W2 Foundations						
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	-
Capital Outlay Construction	26.4	0.1	26.5	26.5	26.5	-
Total	36.4	(0.7)	35.7	35.7	35.7	-
YBI South/South Detour						
Capital Outlay Support	29.4	58.3	87.7	87.9	87.7	-
Capital Outlay Construction	131.9	341.4	473.3	473.4	473.3	-
Total	161.3	399.7	561.0	561.3	561.0	-
East Span - Skyway						
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(55.8)	1,237.2	1,235.6	1,235.6	(1.6)
Total	1,490.0	(71.6)	1,418.4	1,416.8	1,416.8	(1.6)
East Span - SAS E2/T1 Foundations						
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(38.7)	274.8	274.8	274.8	-
Total	366.0	(62.8)	303.2	303.2	303.2	-
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	61.8	140.5	135.7	160.0	19.5
Capital Outlay Construction	299.3	8.8	308.1	280.0	319.9	11.8
Total	378.0	70.6	448.6	415.7	479.9	31.3
* YBI- Transition Structures						
Capital Outlay Support			16.4	16.4	16.4	-
Capital Outlay Construction			-	-	-	-
Total			16.4	16.4	16.4	-
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			72.1	69.9	69.8	(2.3)
Capital Outlay Construction			203.7	202.5	203.8	0.1
Total			275.8	272.4	273.6	(2.2)
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			51.0	49.1	72.8	21.8
Capital Outlay Construction			101.1	77.5	113.9	12.8
Total			152.1	126.6	186.7	34.6
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	0.3	1.0	-
Capital Outlay Construction			3.3	-	2.2	(1.1)
Total			4.3	-	3.2	(1.1)

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures

Through December 31, 2016 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2016)	Cost to Date (12/2016)	Cost Forecast (12/2016)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Oakland Touchdown (see notes below)						
Capital Outlay Support	74.4	45.0	119.4	119.0	119.4	-
Capital Outlay Construction	283.8	46.8	330.6	326.5	329.7	(0.9)
Total	358.2	91.8	450.0	445.5	449.1	(0.9)
* OTD Prior-to-Split Costs						
Capital Outlay Support			21.7	20.0	20.1	(1.6)
Capital Outlay Construction			-	-	-	-
Total			21.7	20.0	20.1	(1.6)
* OTD Submarine Cable(1)						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			5.7	5.7	5.7	-
Total			6.6	6.6	6.6	-
* OTD No. 1 (Westbound)						
Capital Outlay Support			51.2	51.2	51.2	-
Capital Outlay Construction			205.3	202.8	205.3	-
Total			256.5	254.0	256.5	-
* OTD No. 2 (Eastbound)						
Capital Outlay Support			37.6	38.1	37.6	-
Capital Outlay Construction			72.6	71.2	71.9	(0.7)
Total			110.2	109.3	109.5	(0.7)
* OTD Touchdown 2 Detour⁽²⁾						
Capital Outlay Support			8.1	8.0	8.1	-
Capital Outlay Construction			47.0	46.7	46.8	(0.2)
Total			55.1	54.7	54.9	(0.2)
* OTD Electrical Systems						
Capital Outlay Support			1.5	0.8	1.5	-
Capital Outlay Construction			-	-	-	-
Total			1.5	0.8	1.5	-
Existing Bridge Dismantling						
Capital Outlay Support	79.7	(17.8)	61.9	27.2	75.0	13.1
Capital Outlay Construction	239.2	80.8	320.0	191.6	376.7	56.7
Total	318.9	63.0	381.9	218.8	451.7	69.8
* Bridge Dismantling Prior-to-Split Cost						
Capital Outlay Support			3.9	3.9	3.9	
Capital Outlay Construction			-	-	-	
Total			3.9	3.9	3.9	
* Cantilever Section						
Capital Outlay Support			1.6	1.6	1.6	
Capital Outlay Construction			69.0	68.5	69.0	
Total			70.6	70.1	70.6	
* 504/288 Sections						
Capital Outlay Support			21.0	8.4	16.2	
Capital Outlay Construction			103.5	63.2	84.3	
Total			124.5	71.6	100.5	

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures

Through December 31, 2016 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2016)	Cost to Date (12/2016)	Cost Forecast (12/2016)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
*Marine Foundations						
Capital Outlay Support			35.4	13.3	53.3	
Capital Outlay Construction			147.5	59.9	223.4	
Total			182.9	73.2	276.7	
Sunk Cost for Marine Foundation			-	5.8	5.8	
Pier-3 Demonstration Project						
Capital Outlay Support			-	4.0	4.1	
Capital Outlay Construction			17.5	16.8	17.5	
Total			17.5	20.8	21.6	
Remaining Marine Foundations²						
Capital Outlay Support			-	3.6	43.4	
Capital Outlay Construction			130.0	43.1	205.9	
Total			130.0	46.7	249.3	
Pier-E4 to Pier-E18						
Capital Outlay Support			-	3.3	30.6	
Capital Outlay Construction			130.0	43.1	161.0	
Total			130.0	46.4	191.6	
Pier-E2 and Pier-E19 to Pier-E22						
Capital Outlay Support			-	0.3	12.8	
Capital Outlay Construction			-	-	44.9	
Total			-	0.3	57.7	
YBI/SAS Archeology						
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	-
YBI - USCG Road Relocation						
Capital Outlay Support	3.0	(0.3)	2.7	2.7	3.0	0.3
Capital Outlay Construction	3.0	(0.2)	2.8	2.8	2.8	-
Total	6.0	(0.5)	5.5	5.5	5.8	0.3
YBI - Substation and Viaduct						
Capital Outlay Support	6.5	(0.1)	6.4	6.4	6.5	0.1
Capital Outlay Construction	11.6	(0.3)	11.3	11.3	11.3	-
Total	18.1	(0.4)	17.7	17.7	17.8	0.1
Oakland Geofill						
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						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.3	(0.1)	9.2	9.3	9.3	-
Total	11.1	(0.1)	11.0	11.1	11.1	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures

Through December 31, 2016 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (12/2016)	Cost to Date (12/2016)	Cost Forecast (12/2016)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.2	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.9	16.9	(1.4)
Total	21.0	5.5	26.5	25.1	25.1	(1.4)
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	60.9	70.0	(2.4)
Total	72.4	-	72.4	60.9	70.0	(2.4)
Sunk Cost - Existing East Span Retrofit						
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	0.1	97.8	97.8	97.8	-
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-Project Specific Costs	20.0	(16.8)	3.2	3.2	3.2	-
Total	162.6	(16.7)	145.9	145.9	145.9	-
Subtotal Capital Outlay Support	959.3	369.2	1,328.5	1,308.3	1,391.4	62.9
Subtotal Capital Outlay Construction	4,492.2	679.2	5,171.4	4,924.7	5,234.2	62.8
Other Budgeted Capital	35.1	(32.8)	2.3	0.7	2.3	-
Total SFOBB East Span Replacement Project	5,486.6	1,015.6	6,502.2	6,233.7	6,627.9	125.7

(1) Current contract allotment to install two submarine electrical cables is \$5.7 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.

(2) Construction administration of the OTD Detour is under the YBITS#1 contract.

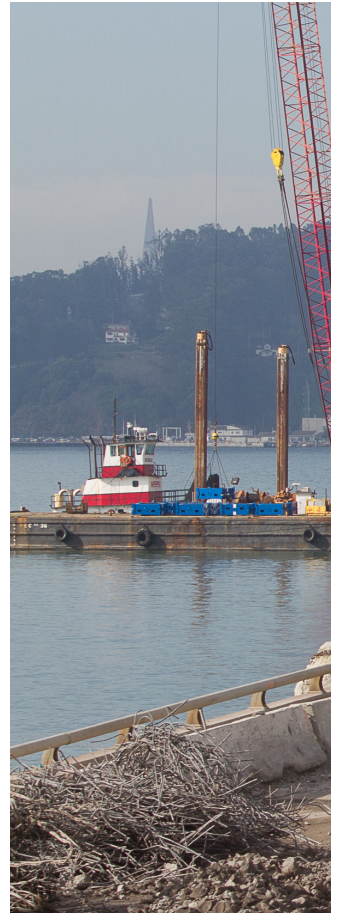
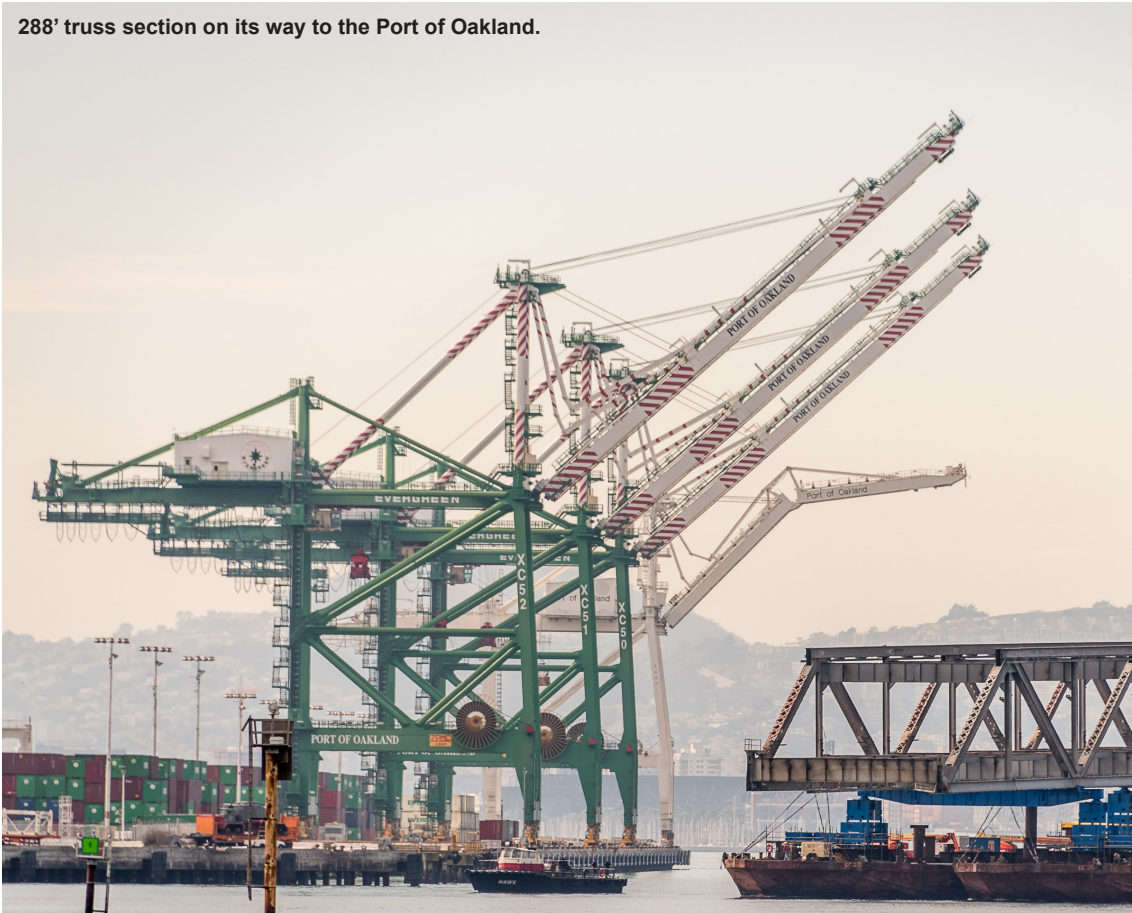
(3) Construction administration of the Cantilever segment is under the YBITS#2 contract.

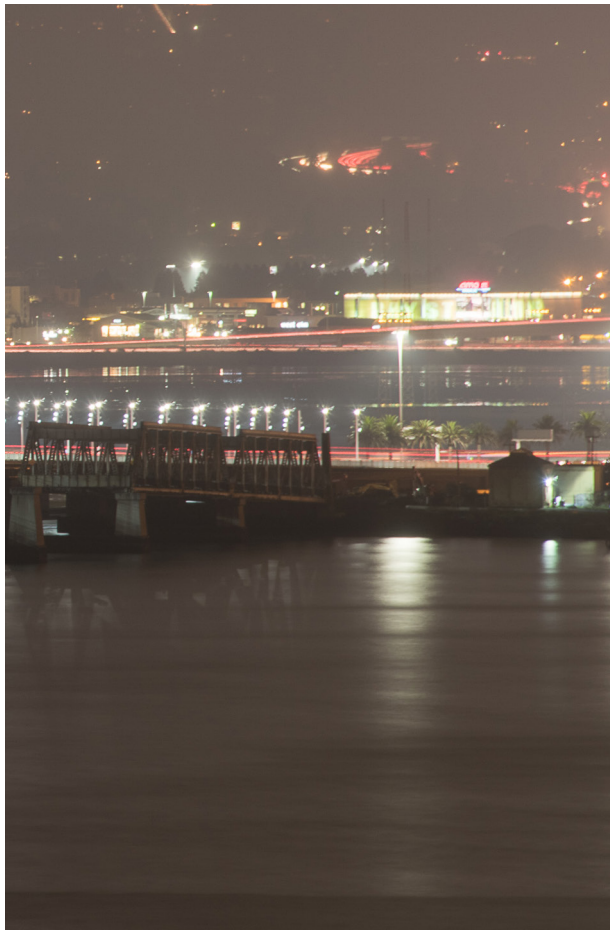
(Due to the rounding of numbers, the totals above are shown within \$0.02).



Original east span after removal of 288' truss sections (looking east toward Berkeley).

288' truss section on its way to the Port of Oakland.





288' truss section (looking west).



288' truss section demolition (looking west).



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Appendix: Glossary of Terms

Glossary of Terms

AB 144/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.

AB 144/SB 66/AB1175 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

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

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

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

CAPITAL OUTLAY SUPPORT (COS): Cost of developing and administering a capital project.

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

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

CURRENT APPROVED BUDGET: The sum of the AB 144/SB 66 Budget or BATA Budget and Approved Changes.

HINGE PIPE BEAMS: Pipes between roadway sections designed to move within their sleeves during expansion or contraction of the decks during minor events, such as changes in temperature. The beams are designed to absorb the energy of an earthquake by deforming in their middle or "fuse" section. Hinge pipe beams are also found at the western piers where the SAS connects to the YBITS (Hinge "K" pipe beams).

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB 144/SB 66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

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

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

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) on the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs.

