Herewith is the TBPOC Meeting Materials Packet for the September 24th meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.
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## TBPOC MEETING
**September 24, 2015**

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<th>AGENDA ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 1         | 1           | EXECUTIVE SESSION  
a. Self-Anchored Suspension Span (SAS) Contract Closeout |
| 2         | 2           | CHAIR'S REPORT |
| 3         | 3           | CONSENT CALENDAR  
a. TBPOC Regular/Urgent Meeting Minutes  
  1. TBPOC July 9, 2015 Regular Meeting Minutes*  
  2. TBPOC July 20, 2015 Urgent Meeting Minutes*  
  3. TBPOC 2016 Meeting Calendar* |
| 4         | 4           | PROGRAM ISSUES  
a. Program Budget/Risks Update for FY 15-16 (Capital Outlay/Capital Outlay Support/Risk Management)* |
| 5         | 5           | SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES  
a. SAS Contract Acceptance  
b. SAS Tower Anchor Rod Investigation Update *  
c. Federal Highway Administration (FHWA) SAS Tower Anchor Rod Review  
d. Yerba Buena Island Transition Span 2 Contract Construction Update  
e. Oakland Touchdown 2 Contract Acceptance  
f. Demolition Contracts  
  1. 504/288 Spans Demolition *  
  2. Pier E3 Demolition Contract  
  3. Pier E3 Permits Update  
g. Documentation  
  1. E2/T1 Foundation Construction Contract Quality Assurance/Quality Control Documentation  
  2. Proposal to Visit Record Keeping Operation of Oakland Army Base Redevelopment |
| 6         | 6           | OTHER BUSINESS  
a. Report on matters discussed and actions taken at Urgent Meeting  
b. Report on matters discussed and actions taken during Executive Session |
| 7         | 7           | GENERAL PUBLIC COMMENT |

* Attachments
# TBPOC REGULAR MEETING

**September 24, 2015**

**Executive Session (Room 1121): 2:00 PM – 2:15 PM**

**Regular Session (Caltrans Board Room): 2:15 PM – 5:00 PM**

**1120 N Street, Sacramento, CA**

**Dial-in Number: 1(866) 803-2146; Access Code: 2474385**

<table>
<thead>
<tr>
<th>Item Number/ Topic</th>
<th>Presenter</th>
<th>Time</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. EXECUTIVE SESSION</strong> a. Self-Anchored Suspension Span (SAS) Contract Closeout</td>
<td>Dan McElhinney, CT</td>
<td>15 min</td>
<td>Information</td>
</tr>
<tr>
<td><strong>2. CHAIR’S REPORT</strong></td>
<td>Steve Heminger, BATA</td>
<td></td>
<td>Information</td>
</tr>
<tr>
<td><strong>3. CONSENT CALENDAR</strong> a. TBPOC Regular/ Urgent Meeting Minutes 1. TBPOC July 9, 2015 Regular Meeting Minutes 2. TBPOC July 20, 2015 Urgent Meeting Minutes 3. TBPOC 2016 Meeting Calendar</td>
<td>Andrew Fremier, BATA</td>
<td>5 min</td>
<td>Approval</td>
</tr>
<tr>
<td><strong>4. PROGRAM ISSUES</strong> a. Program Budget/Risks Update for FY 15-16 (Capital Outlay/Capital Outlay Support/Risk Management)</td>
<td>Dan McElhinney, CT</td>
<td>10 min</td>
<td>Information</td>
</tr>
<tr>
<td><strong>5. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</strong> a. SAS Contract Acceptance</td>
<td>Dan McElhinney, CT</td>
<td>20 min</td>
<td>Approval</td>
</tr>
<tr>
<td>b. SAS Tower Anchor Rod Investigation Update</td>
<td>Brian Maroney, CT</td>
<td>30 min</td>
<td>Approval</td>
</tr>
<tr>
<td>c. Federal Highway Administration (FHWA) SAS Tower Anchor Rod Review</td>
<td>Vince Mammano, FHWA</td>
<td>5 min</td>
<td>Information</td>
</tr>
<tr>
<td>d. Yerba Buena Island Transition Span 2 Contract Construction Update</td>
<td>Steven Whipple, CT</td>
<td>5 min</td>
<td>Information</td>
</tr>
<tr>
<td>e. Oakland Touchdown 2 Contract Acceptance</td>
<td>Steven Whipple, CT</td>
<td>5 min</td>
<td>Information</td>
</tr>
<tr>
<td>g. Documentation 1. E2/T1 Foundation Construction Contract Quality Assurance/Quality Control Documentation</td>
<td>Stefan Galvez, CT</td>
<td>20 min</td>
<td>Approval</td>
</tr>
<tr>
<td>2. Proposal to Visit Record Keeping Operation of Oakland Army Base Redevelopment</td>
<td>Stephen Maller, CTC</td>
<td>5 min</td>
<td>Approval</td>
</tr>
<tr>
<td><strong>6. OTHER BUSINESS</strong> a. Report on matters discussed and actions taken during Executive Session</td>
<td>Steve Heminger, BATA</td>
<td>5 min</td>
<td>Information</td>
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<tr>
<td><strong>7. GENERAL PUBLIC COMMENT</strong></td>
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</tbody>
</table>

Next TBPOC Regular Meeting:
**1:00PM-4:00PM, October 13, 2015**

**Oakland, CA (TBD)**
TO: Toll Bridge Program Oversight Committee  DATE: September 17, 2015
(TBPOC)

FR: Dan McElhinney, Caltrans District 4 Chief Deputy Director

RE: Agenda No. - 1a

Recommendation:
INFORMATION

Cost:
NA

Schedule Impacts:
NA

Discussion:
The Department plans to discuss the Self-Anchored Suspension (SAS) contract closeout during the TBPOC September 24th meeting executive session.
ITEM 2: CHAIR’S REPORT
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)   DATE: September 17, 2015
FR: Andrew Fremier, Deputy Executive Director, Operations, MTC/BATA
RE: Agenda No. - 3a1

Item- TBPOC July 9, 2015 Regular Meeting Minutes

Recommendation:
Approval

Cost:
NA

Schedule:
NA

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the July 9, 2015 Regular Meeting Minutes.
## TBPOC REGULAR MEETING MINUTES
July 9, 2015, 12:00pm – 3:00pm
Pier 7, Mission Bay Office, 325 Burma Road, Oakland, CA

### Attendees:
**TBPOC Members:** Steve Heminger (Chair), Malcolm Dougherty, Will Kempton  
**PMT Members:** Dan McElhinney, Andrew Fremier, Stephen Maller  
**Participants:** Dr. Frieder Seible, Dr. Ed Idriss, Dr. John Fisher, Doanh Nguyen, Dave Ambuehl, Brian Maroney, Bijan Sartipi, Deanna Vilcheck, Bill Casey, Stefan Galvez, Melanie Brent, Karen Wang, Peter Lee, Brian Petersen

Convened: 12:47 PM

<table>
<thead>
<tr>
<th>Items</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td><strong>1. EXECUTIVE SESSION</strong></td>
<td></td>
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<tr>
<td>a. SAS Close Out Strategy</td>
<td></td>
</tr>
<tr>
<td><strong>2. CHAIR’S REPORT</strong></td>
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<tr>
<td>• The Chair welcomed the Toll Bridge Seismic Safety Peer Review Panel (TBSSPRP) members as they were present in the meeting for the SAS tower anchor rods agenda item.</td>
<td></td>
</tr>
<tr>
<td><strong>3. CONSENT CALENDAR</strong></td>
<td></td>
</tr>
<tr>
<td>a. TBPOC Regular/ Urgent Meeting Minutes</td>
<td></td>
</tr>
<tr>
<td>1. TBPOC June 23, 2015 Regular Meeting Minutes*</td>
<td></td>
</tr>
<tr>
<td>• The TBPOC approved the Consent Calendar items. W. Kempton motioned and M. Dougherty seconded the motion.</td>
<td></td>
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</tbody>
</table>
|  | • The TBPOC approved the Consent Calendar items (3-0).  
<p>| <strong>4. PROGRAM ISSUES</strong> |<br />
| a. Budget Forecast (CO/COS Forecast FY 15/16)* |<br />
| • Dan McElhinney, Caltrans District 4 Chief Deputy Director, presented an updated FY 15/16 COS Budget Request of $30 million for the ongoing East Span projects work, and a $1.5 million |<br />
|  |  |</p>
<table>
<thead>
<tr>
<th>Items</th>
<th>Action</th>
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</thead>
</table>
| COS Budget Request for the known tower seismic anchor rod investigation work underway as of July 1 | **Doanh Nguyen, Caltrans District 4 Deputy Director Program Project Management, presented the FY 15/16 $31.5M COS budget request detail information and review of the BATA counter proposal COS of $10M.**  
**W. Kempton motioned for the PMT to present a revised budget request using a different approach for the 504-288 Superstructure Dismantling (01352) and Marine Foundation Removal (01353) contracts and attempt to reduce YBITS2 (0120T) budget using the traditional budgeting approach at an Urgent Meeting conference call, to be scheduled. M. Dougherty, Caltrans Director, seconded the motion.** |
|                                                                     | **The TBPOC requested the PMT to revise the budget. A revised 15/16 COS budget will be presented to the TBPOC at an urgent conference call before July 31st.** |
| **5. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES**                      |                                                                        |
| a. YBITS 2 Contract Update                                           |                                                                        |
| 1. Project Update                                                    |                                                                        |
| • This item was skipped                                               |                                                                        |
| 2. CCO 117 Eastbound On Ramp Acceleration*                           | **The TBPOC approved CCO 117 as presented (3-0).**  
| • D. Vilcheck, Caltrans District 4 Area Construction Manager presented CCO 117 for approval. |                                                                        |
| • W. Kempton motioned and M. Dougherty seconded.                     |                                                                        |
| 3. CCO 612-So Oakland Touchdown Security Cameras*                     | **The TBPOC approved CCO 612-So as presented (3-0).**  
<p>| • D. Vilcheck, presented CCO 612-So for approval.                     |                                                                        |
| • M. Dougherty motioned and W. Kempton seconded.                     |                                                                        |
| 4. CCO 52-S2 Additional Flagging*                                     | <strong>The TBPOC approved CCO 57-S2</strong>                                      |
| • D. Vilcheck, presented CCO 52-S2                                    |                                                                        |</p>
<table>
<thead>
<tr>
<th>Items</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>for approval.</td>
<td>for $1M (3-0). Yes – W. Kempton, M. Dougherty, S. Heminger.</td>
</tr>
<tr>
<td>• W. Kempton motioned to approve the CCO up to $1M and M. Dougherty seconded.</td>
<td></td>
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<tr>
<td>b. Pier E3 Demo Contract and Permits Update</td>
<td></td>
</tr>
<tr>
<td>• M. Brent, Caltrans District 4 Deputy District Director Environmental Planning and Engineering, presented an update on the E3 Demo permits. Discussion included the BO drafted for NMFS, Cal Fish and Wild Incidental Take Permit amendment and a draft mitigation proposal by the end of the week. Both are needed for BCDC approval. The final permit will be from the US Army Corps.</td>
<td></td>
</tr>
<tr>
<td>o S. Galvez, Caltrans District 4 Chief Office of Environmental Analysis, discussed that the NOAA Incidental Harassment Authorization (IHA) posting end of the month and that BCDC agreed to work with draft version for now.</td>
<td></td>
</tr>
<tr>
<td>• W. Kempton inquired about the mitigation strategy if listing in the federal register is delayed past the end of the month and M. Dougherty responded that if it does not go at the end of the month the State will elevate it.</td>
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<tr>
<td>c. SAS Update</td>
<td></td>
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<tr>
<td>1. Project Update</td>
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<tr>
<td>• B. Casey, Caltrans District 4 SAS Resident Engineer provided an update on the SAS Contract closeout activities including Contractor clean up and demobilization from Pier 7 facility, and Pier 7 punch list items to complete. Contractor is fully demobilized from T1 Tower and will be fully demobilized from Pier 7 by July 31, 2015. Once complete, the Department will initiate the</td>
<td></td>
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I

tems

construction contract administration
close out process.

2. SAS Tower Anchor Rod Investigation
   Update
   • B. Maroney, Caltrans District 4
     SFOBB Project Chief Engineer,
     provided an update on the field
     review performed with the TBSSPRP
     through the new East Span. As part
     of their efforts, a final report will be
     prepared and presented covering the
     entire new East Span once SAS
     anchor rod investigation efforts are
     complete.
   • B. Maroney presented an update on
     SAS Tower Anchor Rod
     Investigation. The SAS T1 Seismic
     Anchor Rod Expert Group effort is
     still on time and on budget, meeting
     discussions and recommendations
     will be posted online.
   • B. Maroney discussed the
     unanimous recommendation of 4
     items resulting from the last Anchor
     Rod Expert Group Meeting. These
     items could be on the critical path
     and can start now with TBPOC
     approval: design dehumidification
     system, specify protection system–
     backfill material, restart Raymond
     Testing work, and purchase jacking
     equipment.
   • Dr. F. Seible, TBSSPRP Chairman,
     presented their thoughts on the
tower anchor rods. He stated the
analysis they reviewed from TYLin to
date show that without any anchor
rods, there is no seismic safety issue
for the bridge. It was more
important to have these anchor rods
before load was transferred (from
the temporary false work to the main
cable). If the earthquake had
occurred during construction and
prior to load transfer, the anchor
Dr. F. Seible supports all four recommendations made by B. Maroney related to the tower dehumidification proposal.

Dr. F. Seible discussed that initially when the water was tested in the holes, bay water was not present, now current test data show that some bay water is present. He stressed the importance to backfill the holes to prevent additional bay water seeping back in.

The Chair questioned and Dr. F. Seible confirmed that it is very common to see cracking and water intrusion in bridge foundations.

3. Tower Anchor Rod Dehumidification Proposal

B. Maroney, presented a proposal for SAS Tower Anchor Rod work including: $500k to develop design of dehumidification system (COS), $250k to start selection of protection system and backfill material (COS), $250k NTE to restart the Lou Raymond Test and 1 person from METS to be in lab to observe it (COS), and $100k (CO) to purchase jacks to adjust the loads. ABF owns the jacks previously used and they are not for sale.

M. Dougherty motioned to approve the $1M for COS and $100k CO and W. Kempton seconded. The Chair voted no.

4. Background on Tower Anchor Rod Tension Levels

B. Maroney, presented an informational item on the background for the tower anchor rod tension level modifications in the SAS contract plan sheets in response to a request for information (RFI)

The TBPOC approved the Tower Anchor Rod Dehumidification Proposal as presented (2-1). Yes – W. Kempton, M. Dougherty No - S. Heminger.
666.

- The Chair inquired why the anchor rod tension levels changed in the contract plans. B. Maroney responded that it was discovered during construction that the stiffeners around the tower anchor rods were undersized and more steel was needed for the stiffeners. As steel is added, the load changes. Brian Petersen, SAS Contractor, Project Director of American Bridge/Fluor, JV (ABFJV), mentioned that ABFJV did not ask for the change in tension levels. The project team asked ABFJV to issue an RFI. The byproduct of the RFI was a response to lower the tension level (in addition to adding plate to the stiffeners).

- The Chair asked and B. Maroney confirmed that the reason to lower the tension level was not due to any reason other than to help the stiffeners.

- As one of the remediation strategies to the current tower anchor rod issues, B. Maroney mentioned that he plans to work with the Tower Anchor Rod Expert Group on further lowering the tension levels.

5. E2/T1 Foundation Construction Contract QA/QC Documentation

- B. Casey, Caltrans District 4 SAS Resident Engineer, provided a presentation on the existing E2/T1 construction documentation.
  o The Chair commented on the interest for materials related to foundation box, integrity of foundation box and leaks including what trouble did they have pouring and what things did they fix.
  o B. Casey mentioned that they are targeting to complete the

- Department to inquire with Kiewit
I
categorizing of the QA/QC
documents by around Fall.
o  The Chair requested the Department
to inquire with Kiewit for their
E2/T1 construction records related
to the foundation box.

<table>
<thead>
<tr>
<th>Items</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>categorizing of the QA/QC documents by around Fall.</td>
<td>for their construction records on the E2/T1 foundation box.</td>
</tr>
<tr>
<td>o  The Chair requested the Department to inquire with Kiewit for their E2/T1 construction records related to the foundation box.</td>
<td></td>
</tr>
</tbody>
</table>

6. **OTHER BUSINESS**
   a. Report on matters discussed and actions taken at Urgent Meeting
      • NA
   b. Report on matters discussed and actions taken during Executive Session
      • The Chair reported that the TBPOC discussed SAS close out strategy as indicated and took no action.

   **Next TBPOC Meeting**
   • The next TBPOC regular meeting is on August 24.

7. **GENERAL PUBLIC COMMENT**
   • Public comment by David Williams had questions and comments on the design and changes for the SAS T1 footing and rods. B. Maroney is giving an information package to Leah to be posted to the website.

Adjourned: 3:27 PM
(Continued)

TBPOC REGULAR MEETING MINUTES
July 9, 2015, 12:00pm – 3:00pm

APPROVED BY:

______________________________________ ______________
STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority
Date

______________________________________ ______________
WILL KEMPTON
Executive Director, California Transportation Commission
Date

______________________________________ ______________
MALCOLM DOUGHERTY
Director, California Department of Transportation
Date
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)  
DATE: September 17, 2015

FR: Andrew Fremier, Deputy Executive Director, Operations, MTC/BATA

RE: Agenda No.- 3a2

Item- TBPOC July 20, 2015 Urgent Meeting Minutes

Recommendation:
Approval

Cost:
NA

Schedule:
NA

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the July 20, 2015 Urgent Meeting Minutes.
TBPOC URGENT MEETING MINUTES  
July 20, 2015, 1:30pm – 2:00pm

**Attendees:**  
**TBPOC Members:** Steve Heminger (Chair), Malcolm Dougherty, Will Kempton  
**PMT Members:** Andrew Fremier, Dan McElhinney, Stephen Maller  
**Participants:** Brian Maroney, Deanna Vilcheck, Steven Hulsebus, Keith Hoffman, Karen Wang, Peter Lee

Convened: 1:32 PM

<table>
<thead>
<tr>
<th>Items</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1. EXECUTIVE SESSION  
a. NA |
| 2. REGULAR SESSION  
a. 2015 Second Quarter Project Progress and Financial Update  
b. P. Lee, BATA Principal, presented the draft of the 2015 Second Quarter Project Progress and Financial Update.  
c. The draft report has been updated to include current project progress, but is pending actual expenditures through June 30, 2015 and updated cost forecasts. The cost forecasts are pending completion of the quarterly risk management review, but are not anticipated to have significant increases.  
d. The report is due 45 days after the end of the quarter on August 14, 2015. With the next TBPOC meeting scheduled after that date, staff is seeking delegated approval of the report to the Program Management Team based on the current draft |

Item 3a2i_attach_072015_CCMin-final.docx
<table>
<thead>
<tr>
<th>Items</th>
<th>Action</th>
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<tbody>
<tr>
<td>Report.</td>
<td>• The TBPOC approved staff’s request to delegate approval of the 2015 Second Quarter Project Progress and Financial Update Report to the PMT (3-0). Yes – W. Kempton, M. Dougherty, S. Heminger.</td>
</tr>
<tr>
<td>W. Kempton motioned and M. Dougherty seconded to approve staff’s request to delegate approval to the PMT of the 2015 Second Quarter Project Progress and Financial Update Report. TBPOC to review the updated cover letter.</td>
<td>• The TBPOC approved the FY 15/16 COS Budget Request of $22 million, as presented (3-0). Yes – W. Kempton, M. Dougherty, S. Heminger.</td>
</tr>
<tr>
<td>Budget Request (COS FY 15/16)</td>
<td>• PMT to present a COS budget contingency at the next TBPOC meeting.</td>
</tr>
<tr>
<td>Dan McElhinney, Caltrans District 4 Chief Deputy Director, presented an updated FY 15/16 COS Budget Request of $22 million for the ongoing East Span contracts work including the SAS tower seismic anchor rod investigation work underway. The budget request does not include any schedule risks or risk budget and only includes known scope for the SAS tower as of July 9, 2015.</td>
<td></td>
</tr>
<tr>
<td>• The full scope and COS cost related to the Anchor Rod testing program will be available in another 4-6 weeks when the Tower Anchor Rod Expert Group has completed their review and recommendations. The $22 million budget request does not include any future SAS tower anchor rod COS costs/risks after July 9, 2015.</td>
<td></td>
</tr>
<tr>
<td>• TBPOC requested a COS budget contingency be identified at the next TBPOC meeting.</td>
<td></td>
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<tr>
<td>• M. Dougherty motioned and W. Kempton seconded to approve the Budget Request (COS FY 15/16), as presented.</td>
<td></td>
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<tr>
<td>• The Chair commented that this budget will be presented to the Bay Area Toll Authority meeting in September since the July meeting is in 2 days and they do not meet in August.</td>
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<tr>
<td>Items</td>
<td>Action</td>
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<td>-------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>3. OTHER BUSINESS</td>
<td></td>
</tr>
<tr>
<td>a. Report on matters discussed and actions taken at Urgent Meeting</td>
<td>NA</td>
</tr>
<tr>
<td>b. Report on matters discussed and actions taken during Executive Session</td>
<td>NA</td>
</tr>
<tr>
<td>o The next TBPOC regular meeting is on August 24, 2015, in Oakland, 1:00pm – 3:00pm.</td>
<td></td>
</tr>
<tr>
<td>4. GENERAL PUBLIC COMMENT</td>
<td></td>
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<tr>
<td>• No public comment received.</td>
<td></td>
</tr>
</tbody>
</table>

Adjourned: 2:00 PM
TBPOC URGENT MEETING MINUTES
July 20, 2015, 1:30pm – 2:00pm

APPROVED BY:

______________________________________ ______________
STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

______________________________________ ______________
WILL KEMPTON
Executive Director, California Transportation Commission

______________________________________ ______________
MALCOLM DOUGHERTY
Director, California Department of Transportation
TO: Toll Bridge Program Oversight Committee (TBPOC)  DATE: September 17, 2015

FR: Andrew Fremier, Deputy Executive Director, Operations, MTC/BATA

RE: Agenda No. - 3a3

Item- Consent Calendar
2016 TBPOC Meeting Calendar

Recommendation:
Approval

Cost:
NA

Schedule:
NA

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the 2016 TBPOC Meeting Calendar.

Attachment:
2016 TBPOC Meeting Calendar
### 2016 TBPOC Meeting Calendar
(as of September 24, 2015)

#### Quarterly Report Schedule
- 5 - Labor Day
- 4 - Independence Day
- 11 - Veteran's Day
- 24 - Thanksgiving Day and day after
- 26 - Day after Christmas Day
- 5 - Memorial Day
- 18-ML King Jr. Day
- 15 - President's Day
- 24 - Thanksgiving Day and day after

TBPOC meetings are planned monthly and are subject to change as determined by the Toll Bridge Program Oversight Committee.
Memorandum

TO:     Toll Bridge Program Oversight Committee (TBPOC)     DATE:     September 17, 2015

FR:     Dan McElhinney, Chief Deputy District Director, Caltrans District 4/
        Doanh Nguyen, Deputy District Director, Program Project Management, District 4

RE:     Agenda No. - 4a

Item-   Program Budget/Risks Update for FY 15-16 (Capital Outlay/Capital Outlay
        Support/Risk Management)

Recommendation:
Information

Cost:
NA

Schedule:
NA

Discussion:
At the September 24, 2015 TBPOC meeting the Department will provide an update on the East
Span Seismic Safety Projects capital outlay support (COS) budget and expenditure status based
on the July 20, 2015 TBPOC approved COS budget (see attachment 1) without risk reserve or
contingency included. The TBPOC requested the PMT and Department be more innovative and
efficient in support of ongoing contracts and the tower anchor rod investigation, in the field
construction operations as well as state/AE consultant support.

An action plan was implemented beginning July 21 by the project team working with all key
managers to make that shift to a new paradigm for a staffing and AE consultants support plan
to stay within the new budget, but keeping safety and quality delivery services paramount for
the project. Construction, Environmental, Design, Project Management, and Materials Testing
managers among others were involved and are directed to manage to their portion of the
budget. Consultant firms on the team were also challenged as well to be more efficient in
delivering the workload scope as planned, but within more efficient task order budgets for this
fiscal year. This process is ongoing and is being tracked and monitored closely by unit and
contract to reduce risks and manage the budget. Cost data through August, though preliminary
and pending final invoices and a quality check, show state staff expenditures for the two
months at $2.3 million and AE costs or encumbrances of $3.0 million. The main challenges
ahead are the new needs for E3 permit requirements, and the supplemental anchor rod
investigation work yet to be approved. More details and updated data will be available and
presented at the October 13, 2015 TBPOC meeting.

Attachment:
1.     TBPOC Approved Budget July 20, 2015

Item 4a_Memo-ProgramBudget-24Sep-15-final-v1.doc
# TBSRP FY 15/16 COS Budget Request

## 7/20/2015 Budget Summary by Contract

<table>
<thead>
<tr>
<th>CONTRACTS</th>
<th>Const. Staff CO $ (k)</th>
<th>Support Staff (FTE)</th>
<th>State Staff Total $ (k)</th>
<th>A&amp;E Support $ (k)</th>
<th>Contingency or Risk Reserve (1) $ (k)</th>
<th>COS BUDGET TOTAL $ (k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 YBITS2/CANT. (0120T)</td>
<td>$161,400</td>
<td>10.6</td>
<td>9.4</td>
<td>$5,130</td>
<td>$4,305</td>
<td>$0</td>
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**Notes:**

1. Assumptions in this COS Budget Request include no contingency or risk reserve for scope or schedule changes at this time, as these changes will only be presented as separate future budget requests if unmitigated risks, scope or schedule changes occur.

2. "Others" include: Dumbarton Public Access, YBI Landscape, YBITS 1 and West Approach Landscaping.

3. COS savings within contracts listed above will be shifted to other contracts listed above if needed.

**Attachment 1:**

TBPOC Approved Budget (July 20, 2015)
Memorandum

TO:  Toll Bridge Program Oversight Committee  (TBPOC)

     Dan McElhinney, Caltrans District 4 Chief Deputy Director/

FR:  Bob Finney, Deputy District Director - Construction

RE:  Agenda No.-  5a

Item-  Self-Anchored Suspension Span (SAS) Contract Acceptance

Recommendation:
Approval

Cost:
To be determined.

Schedule Impacts:
None.

Discussion:
The Department recommends accepting the SAS contract after taking an appropriate deduction (via CCO) for unacceptable tower anchor rod grout that will need future repairs.

After accepting this contract the following closeout process, including dispute resolution, will begin:

• By day 40 the Department will issue a Proposed Final Estimate (PFE) wherein all quantities, payments and deductions are finalized for the contractor’s final review- on this contract there are deductions for LD’s and added support costs, however further payments and credits may be made for additional bridge opening costs and Pier E2 shear key work
• Within 30 days of receiving the PFE (day 70) the contractor will return their response to the PFE- typically disputes in quantity measurements, unpaid extra work bills, and contract claims
• Between days 70 and 240 the Department and the contractor resolve item quantity and extra work payments and attempt to resolve contract claims
• After day 240, or within 90 days of a final determination of claims, the contractor may file for arbitration with the Public Works Contract Arbitration Program

Public Contract Code Section 10240.2 allows a contractor to file for arbitration 240 days after contract acceptance. A contractor may file for arbitration in less than 240 days if the department has delivered a written final determination of claims, after which a contractor must file for arbitration within 90 days. Also, if the PFE is negotiated to resolution, arbitration would not be needed.
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)
FR: Brian Maroney, SFOBB Project Chief Bridge Engineer, Caltrans
RE: Agenda No. – 5b

Item – SAS Tower Anchor Rod Investigation Update

Recommendaition:
Approval

Department will report on the T1 Seismic Anchor Rod Expert Review Panel recommendation for the approval on the following items:

1) Advance the repair program
2) Transfer of a total of 4 Townsend test Rigs

Costs:
$15 to $25 Million

Schedule:
TBD – pending based on directed program (mid to late 2016)

Discussion:

The Department plans to present the following updates related to the SAS tower anchor rod investigation at the September 24th TBPOC meeting:

• Per the TBPOC direction on June 4th TBPOC, the Department has asked that METS prepare and transport tower seismic anchor rod sample Rod 3 to an expert laboratory. The Department will provide the latest information from the lab as an update on Rod 3 investigations at the TBPOC meeting.

• Per the TBPOC direction on June 4th, the project team has proceeded with forming the T1 Seismic Anchor Rod Expert Review Panel that reviewed and provided recommendations for investigations for the Tower Seismic Anchor Rod Testing Program. The Department plans to present the products of that TBPOC
Memorandum

directed work for acceptance by the TBPOC. Further direction has been given for the Program Chief Bridge Engineer to offer a recommendation to the TBPOC that will be presented at the September 24th meeting. Attached are the collective workshop meeting minutes and an estimated schedule for the work. The schedule and cost can be expected to extend into late 2016 with a cost up to $25 Million dependent upon scope of work approved.

- The project team will recommend the TBPOC transfer a total of four (two each) Townsend test rigs to recognized industry research leader. Ahmad Itani of the University of Nevada at Reno and Salim Brahimi of the IBeca Technologies and ASTM fasteners committee chair have agreed to accept the test rigs at the Pier 7 test site.

Attachments:
1) SAS T1 Seismic Anchor Rods Expert Group (Estimated Schedule) Action Item List from 7/2015 Workshop
2) Meeting Notes from the Anchor Rod Workshops
3) TBPOC SAS T1 Tower Seismic Anchor Rod and Pile Cap Expert Group July 2015 Workshop Presentation Material (cover page provided; entire document to be available on www.baybridgeinfo.org)
4) Recommendation Schedule – Tower Anchor Rod
Self-Anchored Suspension Bridge

Meeting Notes of the July 2015 TBPOC T1 Tower Seismic Anchor Rods Expert Group
Toll Bridge Seismic Safety Peer Review Committee Meeting

Thursday July 9, 2015
SFOBB Field Office – 333 Burma Road, Oakland, CA

TBSSPRP Members Present (all):
- Dr. John Fisher
- Dr. I.M. Idriss
- Dr. Frieder Seible

8:30AM-9:30AM – Briefing (with Caltrans / METS / DJV)
- Dr. Maroney gave an overview of the SFOBB eastern span construction and introduced the presentation on Tower Anchor Rod status.
- TBSSPRP expressed great disappointment in what they have been reading in the newspapers about the east span of the bay bridge.
- J. Elliott (METS) presented as summary on the Tower Anchor Rod status and key testing performed (see attached presentation).
- Statements from the peer review panel included the following:
  - The issue at the tower anchor rods bottom is a corrosion one, not stress corrosion. Based on experience with bolted connections on steel bridges, corrosion does not easily take place between threads that are in tight contact (when the bolts are loaded), and corrosion typically arrests when the supply of oxygen is depleted.
  - The issues at the tower anchor rods are due to a bad grouting operation and poor quality control.
- The TBSSPRP was informed that the T1 anchor rod TBPOC mandated expert group was scheduled to meet in mid-July at Pier 7 to make recommendations to establish a path forward.

9:30-11:30 – YBITS Ramps Site Visit (with Caltrans and DJV)
- The TBSSPRP members visited the construction site on Yerba Buena Island and saw active construction work on the ramps. The focus of their review as the connection between the ramps and the main line.
- TBSSPRP members climbed the taller than 100 ft falsework (see attached photo) and reviewed selected steel and concrete connections between the two superstructures (ramps and SFOBB East Span main line).

11:30-12:15 – SAS Seismic Analysis Presentation and Discussion (with Caltrans and DJV)
- Dr. Nader presented the seismic analysis of the Self Anchored Suspension Span with no tower anchor rods and with 50% of tower anchor rods performed by the DJV (see attached). The conclusion of the study is that removing all tower anchor rods has a minimal effect on the overall response of the structure to the design SEE event.
• The peer review panel noted that the critical condition for these anchor rods was when the
tower was erected and before load transfer was completed.
• The peer review panel recommended finding the limit seismic event return period for no uplift
(for the case with no anchor rods).
• Dr. Maroney informed the TBSSPRP members of the rain water infiltration in the OBG (mostly
through the barrier rail connection).
• Dr. Nader stated that as the Engineer of Record, he is more concerned about the water inside
the east anchorage than the tower anchor rods. He noted that the cable structure is the most
important element in this bridge and needs to be protected.
• Dr. Nader added that while the cable strands are protected from moisture using two systems
(galvanization and dehumidification), the dehumidification is not effective if rain water is
allowed to seep into the east anchorage.
• Mr. Akinsanya discussed the PWS displacement reduction system. He informed the TBSSPRP
members that the options investigated have problematic/ fatigue sensitive connections to the
OBG.
• TBSSPRP recommended not tying the displacement reduction system to the OBG and suggested
instead tying a few strands together possibly using soft materials (not necessarily steel
connections) to reduce potential displacement.

12:15 PM - Meeting Adjourned and TBSSPRP members joined the TBPOC public meeting (@ Mission Bay
Trailer).

Photo 1: TBSSPRP Members Climbing YBITS Ramp Falsework (July 9, 2015)
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1. **Kick-off and Introductions (D. McElhinney & B. Maroney)**

D. McElhinney kicked off the workshop by welcoming and thanking the participants for their support and expertise. He noted that the purpose of the rods gets confused sometimes in the public arena; the purpose is important: they provide an enhanced secondary system for the seismic performance of the bridge.

B. Maroney reported that the purpose of the workshop is to share all the information to date on the tower anchor rods with the TBPOC expert team, and then discuss options and set up a plan to move forward (testing, analysis, recommendations etc.); schedule and budget will be developed for the agreed upon plan and will be presented during the next TBPOC meeting. He emphasized that he is seeking guidance from the TBPOC expert group on what should be done in terms of testing, analysis and evaluations. In addition, he asked for the opinion of the expert group on what material should be used for corrosion protection / backfill for the anchor rods, whether the micro-indications observed under SEM at 1000X are significant, and consider the possibility of corrosion in the pilecap. He also indicated that he was looking for input on what should go into the content of a bridge user’s manual with respect to the tower anchor rods and pilecap. He noted that bringing together the multiple organizations involved and fostering cooperation is highly important and expressed the desire that the groups work together and report on their findings together. In addition to the TBPOC expert group, organizations present in the workshop, include: Caltrans Design, Construction, and METS, the Design Joint Venture, CTC, BATA, the Bay Bridge Public Information Office, FHWA.

He then introduced the first presentation on the seismic analysis of the Self-Anchored Suspension Bridge (SAS) by M. Nader of the Design JV. He further explained that the analysis was performed using the six time histories developed for the design (three from San Andreas and three from Hayward), using a 1500 year return period, which is unprecedented. In addition velocity pulses, also known as fling, were included in all six time histories. He further noted that the tower anchor rods do not carry any load for self-support or live loads, and are only effective during a seismic event.

2. **Analysis of the Self-Anchored Suspension Bridge with No Tower Anchor Bolts (M. Nader)**

M. Nader presented the seismic analysis of the Self-Anchored Suspension Bridge with no anchor rods and with 50% of anchor rods active. The purpose of the analysis was to evaluate the purpose of the anchor rods and their effect on the bridge performance under the design seismic event. He presented the details of the seismic analysis and results.

He concluded that the seismic response of the Self-Anchored Suspension Bridge is not measurably diminished in the event that no anchor rods are effective, with minor uplift at one corner of the tower base.

Maroney added that seismic demands used in the design and analysis were more conservative than code requirements. Both B. Maroney and M. Nader confirmed that the bridge will be operational after a design seismic event and will meet the post-event requirements even with no anchor rods.

A meeting to discuss in greater detail the seismic analysis associated with sensitivity analysis of the system assuming rods not being present was scheduled for the following week during the FHWA workshop.

During the presentation, when concern was raised about possible corrosion of the uncoated steel plates in the pile cap M. Nader explained that the pile cap has ample capacity to carry the demand from the pile and that under an extreme event he would expect that the pile cap would still be elastic and do its job. It was also agreed that the question would be further discussed the following week during the FHWA workshop.

The workshop proceeded with the following presentation on the construction of the tower foundation and testing performed to date.

July 16, 2015

The presentation provided background on how the footing was built and the rods were tensioned. It was noted that, there are no records of Quality Assurance (QA) for the fabrication of the anchor rods, and that Quality Control (QC) documents are available. During the A354 Grade BD test program, testing performed by Caltrans to verify mechanical properties confirmed that the anchor rods satisfy the material specifications.

The steel pilecap was fabricated at KOS and shipped to the site. High slump concrete was used inside the footing cells while bottom slab concrete was self-consolidating. Footing rebars were epoxy coated to satisfy Caltrans code requirement (within a splash zone). After the bottom slab was poured, it was examined for cracks; cracks were repaired using epoxy injection prior to lowering the footing into the bay.

The anchor rod pipe sleeves were not grouted until after the tower shafts were erected to allow possible adjustment of rods to align with the holes in the base plate. The tower shafts and shear plates were installed in summer 2010.

After shaft erection and prior to tensioning the rods, the grout pad was poured under the base plate. Neoprene doughnut seals were installed around all the rods prior to the grout pour. At a few locations, these seals had to be cut because they conflicted with the bulkheads at the grout pour joints.

The tensioning was a multi-stage operation. After load transfer all the rods were re-tensioned to their design force.

4. **REVIEW OF EXISTING TEST PLAN AND RESULTS TO DATE (METS)**

The material was presented in 4 parts: A. Initial inspection and water sampling; B. What prompted rod removal and rod testing results; C. Additional field testing; and D. SEM Analysis of Rod 3 fracture surface.

A. **Initial Inspection and Water sampling (J. Elliott)**

July 16, 2015

During punch list inspection in September 2014, raised caulk and small puddles of water were observed at a few anchor rod locations. This led to removal of caulk around a number of anchor rods and the observation of standing water. Contractor was then directed to remove caulk and METS to inspect the annulus area at all 423 anchor rod locations. Water was observed in 95% of the locations. It was later determined that the caulk was lifted up due to the tensioning of anchor rods located near shear plates. At those specific locations, rod tensioning had occurred after the rods had been grouted and the annulus sealed with backer rod and caulk.

Water analysis indicated that the sampled water was fresh water; initial water testing was completing in mid-October 2014 and bay water was ruled out because chloride content of the majority of the samples was around 100 mg/l the highest being 500 mg/l. As a reference the chloride content of tested bay water was 18,600 mg/l.

Inspection of the annuli at all the rods concluded that 138 of 424 rods were not grouted as specified: some missed a little grout (2”-12”) while other rods missed meters of grout and few rods were fully ungrouted. As a result, the Department questioned the grouting of every rod. The Contractor elected to use water jetting (at 20,000 psi) to produce inspection holes to verify the integrity of the grout by use of borescope. Water jetting damaged the rods’ Denso tape wrap, the galvanizing locally, and possibly the plumbers-putty seal at the base of the rod pipe sleeves.

After completion of the water jetting operations, it was observed that water was coming back to select dewatered locations (using borescope). Water monitoring to date shows that water is not returning to 75% of the rods, while 25% of the rods saw an increase in water levels. No correlation was found between the location of the rods and the returning water.
In April/May 2015, 19 of 87 water samples taken post water jetting were tested. Cl\(^-\)/Br\(^-\) was used to identify whether returning water contained bay water. In 75% of the tested samples the Cl\(^-\)/Br\(^-\) ratio was within 10% of that of bay water (276). It was thus concluded that bay water was reaching the bottom of the anchor rod pipe sleeves.

B. Rod Removal and Rod Testing - Rod 1 and Rod 2 (S. Khan)

Rod 2 (#136-2-3) in the North Exterior Cell: This rod was removed in December 2014 to investigate corrosion effects since it was in standing water for multiple years.

This rod was found to be ungrouted except for a grout cap (easily removed) and a 1-ft grout column at the bottom of the rod/pipe sleeve. The rod did not strip or fracture. Wet fluorescent magnetic particle examination was performed on this rod (per ASTM E1444) and no indications were detected.

Coupon tension testing and hardness measurements of all samples met specifications. Hardness testing was performed using both Rockwell and Knoop hardness. It was noted that Knoop is more appropriate for surface hardness evaluation. Charpy Impact Test at 40F averaged 49ft/lbs. It was noted that there is no CVN requirements for ASTM A354 Grade BD rods.

T. Langill noted that galvanizing with a thickness of a 10 mils (~250 micrometers) is brittle and is likely to fracture upon contact with a nut. He also noted that tips of threads typically get damaged when the rods are handled / put on the ground; he added that nut tightening applies stress and can damage the thread galvanizing.

T. Wilken noted that the zinc coating was chipped at the tip of the threads, that there was corrosion within the zinc at the roots. He did not recall corrosion in the steel, and therefore would need to review the report.

At 100X examination, small indications were observed in the thread roots triggering an entire investigation into micro-indications. However, B. Maroney noted that the wet fluorescent magnetic particle examination found no indications. L. Raymond added that after a wedge plate hydrogen embrittlement test per ASTM F606 cracks and indications seen using magnifications over 20X are considered insignificant.

Diameter measurements with galvanizing present hovered around the lower limit for ungalvanized threads.

Rod 1 (#150-1-2) in the West Shaft: This rod was extracted in May 2013 for the A354 Grade BD test program. It stripped during the initial tensioning and was never loaded above .46Fu and was only temporarily loaded during tensioning (no sustained load).

This rod was examined with high magnification for micro-indications after they were observed in Rod 2. H. Townsend noted that this rod was tested in Test III and Test IV and SEMs and micro-indications were observed during SEM examination. Therefore, the SCC/EHE threshold determined accounted for the presence of micro-indications. T. Langill confirmed that SEM pictures for multiple Test IV samples include micro-indications in threads other than the fracture surface.

Diameter measurements indicate that the major diameter with galvanizing was below the lower limit of ungalvanized threads. K. Frank noted that 1/16\(^{th}\) of an inch below the limit is significant.

C. Additional field testing (A. Prchlik)

At the request of the TBPOC, METS developed a pulse echo ultra sonic (UT) procedure to verify the lengths of the rods, to check if any rod had failed in the field. The procedure which can also identify macro-cracks was calibrated using full-size rods at Pier 7.

UT testing was performed on all 422 rods in March 2015. Two METS crews separately performed testing of all 422 rods and then compared the results. Rod lengths were compared to the fabrication/construction QC information.
There was some variability in the measurements, with 376 rods (89%) within 10mm of the expected length, 45 between 10mm and 60mm and 1 rod was 155mm shorter than expected. The short rod was rod # 155-1-1 (Rod 3).

An attempt to load Rod 3 to its specified pretension level was carried out. During the tensioning operation, Rod 3 did not carry load and was assumed to be broken. It was then removed from the tower base. Proof load testing to the maximum seismic load was then performed all accessible rods.

When Rod 3 was removed, it had stripped threads and a fracture surface located at the bottom of the nut, in the stickout. Per TBPOC direction, non-destructive fracture analysis was performed (at Exova), and no additional testing was to be performed until receipt of further recommendation and guidance from the TBPOC expert group.

D. Rod 3 Fracture Surface Examination Presentation (T. Wilken)  
July 16 & 17, 2015

Rod 3 fracture surface was examined in Exova laboratories on June 17, 2015 to help identify significant features on fracture surface. During his presentation on July 16, 2015, T. Wilken noted that the observed ridge in the fracture surface indicates two advancing fracture fronts: one moving clockwise and one moving counterclockwise. An accommodation kink was formed where fracture surfaces met.

There was no evidence of corrosion or zinc intrusion into the crack. Fine features of cleavage failures were observed. Cleavage type fracture could indicate jerk load/impact load. Absence of faceted areas of grains indicated fracture was not Intergranular. More branching would be expected from stress corrosion cracking than that seen on fracture surface so it is therefore premature to identify stress corrosion cracking.

He noted that destructive testing and further micro-structural evaluation is needed to complete the investigation.

On July 17, 2015, T. Wilken explained in detail the contents of various SEM photographs provided in the handout.

He noted that the absence of facets with ridges eliminates the possibility of intergranular fracture. He distributed examples of how an intergranular fracture would look like for comparison purposes. T. Wilken also pointed out features indicative of cleavage failure in Rod 3 SEM. He reiterated his hypothesis that the fracture surface was formed in two steps, through two cleavage fronts meeting along the center axis of the rod. He also noted if SCC/EHE were the failure mechanism, the features would have shown secondary cracking which he did not see.

It was noted that little rust was seen on the fracture surface. K. Frank indicated that the glassy appearance in the initiation areas is probably an indication of cold work. T. Wilken agreed and said that this was his suspicion as well, and that micro-structural investigation is needed to determine if it is the case.

At the end of the presentation, T. Langill, D. Williams and J. Gorman noted that they do not see a reason for further opinions on SEM (as had been suggested initially). It was suggested to continue to study the metallography and microstructure at the fracture surface. J. Gorman reiterated recommendation to do longitudinal sectioning and examinations similar to the post-fracture analyses performed for Test IV samples.

M. Wahbeh noted that coordination is needed between proposed testing and available real estate in order to optimize on usage of available material.

5. Rod 2 Extraction Details (B. Brignano)  
July 17, 2015

B. Brignano provided details on the removal of Rod 2 process and applied loads because of multiple questions he received regarding Rod 2 extraction and the discussion of the micro-indication mapping performed on this
rod. He explained that while it took a few weeks to remove the rod from the foundation, tension loads were not sustained during the extraction process. The delays were mostly related to procurement of suitable equipment and miscellaneous scheduling and coordination issues.

With regards to the bottom stick-out of Rod 2, B. Brignano noted that while no direct tensile load was applied to the last ~1” stick-out of the rod a lot of torque was applied during rod extraction when the threads with the residual concrete were chased through the nut.

J. Elliott noted that water samples taken from Rod 2 before water jetting were tested for chlorides (max. concentration found to be 240 mg/L).

6. **RISING STEP LOAD (RSL™) TEST PRESENTATION (L. RAYMOND)** July 17, 2015

L. Raymond presented the Rising Step Load (RSL™) test and of testing done at LRA labs on the A354 Grade BD rods. He indicated that micro-indications can be characterized by SEM examination, and RSL™ testing can be performed under similar conditions as in Test V to evaluate the effect of micro-indications on the SCC/EHE threshold.

7. **GROUP DISCUSSION OF TESTS AND ACTION PLAN** July 16 & 17, 2015

TBPOC expert group expressed in turn their ideas for potential test and action plan items and comments as follows:

- **K. Frank:**
  - To evaluate stripping, check hardness and minor diameter of available nuts and measure the outside diameters of the top of all rods in-situ to evaluate stripping. If possible core and extract nut and remaining piece of Rod 3 to see if there is another nut.
  - Use a maintainable anchorage and oil to protect anchor rod threads.
  - There are no seismic safety problems with current bolts. Not concerned about uplift for the case with no anchor rods.

- **T. Langill:**
  - Perform chemical analysis on original water samples to check for bay water.

- **L. Raymond:**
  - Create fracture surfaces with threaded specimens cut from Rod 3 and tested under known loading conditions for SEM comparison to Rod 3 fracture surface.
  - Compare shank and thread diameter on both ends of Rod 4 to determine if cause of stripping is from cutting threads from preform intended to be for rolled threads.

- **J. Gorman:**
  - Actions aiming at providing corrosion protection to anchor rods are of highest priority. If rods are kept dry, no further failures are expected.
  - UT test all rods to confirm absence of time dependent cracking in rods subsequent to seismic proof test. Confirmation of absence of cracks, will indicate that the threshold for HE of the rods is greater than 0.48F\textsubscript{u}.
  - Determining why Rod 3 fractured is interesting but not essential. The failure may be related to thread stripping that led to application of high bending stresses.
  - RSL™ testing and hardness measurements of near fracture samples of Rod 3 material, would be useful.
  - It is important for RSL™ test samples to be representative of a relatively high concentration of micro-cracks. If current RSL™ samples do not have enough micro-cracks, other samples should be identified and tested.
  - RSL™ testing in high pH & low oxygen environments to simulate actual conditions at the lower nut is useful.
Determining why thread stripping of a number of rods has occurred is useful.

- S. Dean:
  - Primary emphasis should be to keep water out of sleeves and keep rods dry.
  - A little more work needed on Rod 3 to confirm cleavage crack and, if confirmed, understand why cleavage was observed.
  - Note that fracture happened only on 1 out of 424 rods.
  - Rod 4: know whether rod dimensions consistent observed stripping.

- J. Kulicki:
  - Pilecap: plan to monitor active corrosion and consider contingency plans of what to do in case of finding any happenings.
  - 1000X magnification way above 20X and suggests that results anecdotal and do not matter much.
  - If rods are dry and stability from hydrogen embrittlement is known to be the case, then walk away from those issues.

- R. Bittner:
  - Possible that water is entering most of the bolt sleeves and anchorages through fine cracks in bottom slab.
  - If the top of the bolt sleeves is effectively sealed on a permanent basis, dry air at 8 psi pressure could be used to force Bay water out and keep it out of sleeves and anchorages.
  - Due to concrete alkalinity and available minimum 500 mm cover, pilecap corrosion is not considered a concern. Plan should be developed to monitor corrosion and arrest corrosion should it become an issue.

- R. Heidersbach:
  - System used to prevent water ingress should be maintainable and inspectable.
  - Substance used to prevent corrosion should be removable to inspect and control corrosion and biocides. Essentially use oily substance at bottom, greasy substance on top.
  - Grouting into hole not appealing.

- D. Williams:
  - Mock-ups are essential part of evaluation of backfill options and on critical path for protecting lower threads.
  - No further work recommended for Rod 3 except for additional hardness testing recommended by K. Frank.

- H. Townsend:
  - Rod 3: Get hardness on bottom to compare with top to check if there are manufacturing issues.
  - Resources must be focused on keeping water away. To keep water out, the best alternative in mind is oil column. In the majority of the rods, there is no risk of oil leak. In rods with risk of oil leak, prior to adding oil column, a seal forming substance could be injected at the bottom. Oil column is easily reversible.
  - Alternatives should be checked with mock-ups.
  - Long term maintenance and follow up important.

8. **Updates to Tower Anchor Rod Matrix**

See attached matrix. Items in red represent changes to matrix based on the team discussion.

July 17, 2015
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9) Action Plan and Test Matrix Discussion (All) ....................................... 2
1) **Kick-off Discussions (B. Maroney)**

FHWA had requested that the material presented in the mid-July workshop be presented again to members of team who were not able to attend. In addition at G. Kolle’s request, a presentation on the design of the pilecap and a summary of the Townsend and Raymond Test results were included. A field trip to the tower base was also organized for this group on 7/23/2015. B. Maroney welcomed the team and provided a synopsis of the previous workshop. He noted that the FHWA recommendations are important to the team and have especially been requested by the TBPOC.

2) **Analysis of the Self-Anchored Suspension Bridge (SAS) with No Tower Anchor Rods and with 50% Tower Anchor Rods (M. Nader)**

   a) **As Planned Additional Meeting At TYLI SF Between FHWA, DJV, and Caltrans:**

      Meeting with M. Nader, T. Ingham, and B. Maroney to discuss in greater detail the seismic analysis associated with sensitivity analysis of the system assuming rods not being present.

   b) **Wrap Up:**

      FHWA presented multiple questions on the modeling assumptions and analysis results. They were addressed by M. Nader and T. Ingham to their satisfaction.

3) **Review of Existing Test Plan and Test Results to Date (METS)**

   METS staff presented a review of the water monitoring and test results of Rod 1 and Rod 2:
   - Rod 2 was removed to evaluate the effects of prolonged exposure to standing water.
   - Rod 1 was removed (in 2013) to be used in the A354 Grade BD rod Testing Plan. (Rod 1 had stripped during initial tensioning).
   - Both Rod 1 and Rod 2 passed the wet magnetic particle testing (MT) with no indications.
   - Average galvanization thickness above bottom nut ~ 250 microns. Thickness below the nut was less.
   - Mechanical testing of Rod 2 indicated that elongation and yield met the ASTM requirements.
   - Diameter checks indicated that the bottom threads of Rod 1 and Rod 2 were undersized, as well as 2 out of 6 rod remnants (rod stickouts cut for use in previous test program).
   - Micro-indications were found in approximately 1/3 of the threads examined.
   - FHWA commented that it would be interesting to test ungalvanized rods in tension (similar to what Rod 1 and Rod 2 were subjected to) and then to examine them for micro-indications.
   - FHWA recommended diameter or thread pitch checks for all rods.

4) **Ultrasonic Testing (UT) of Tower Base Anchor Rods (A. Prchlik)**

   A. Prchlik presented the UT procedure whose purpose was to identify fractured or cracked rods. The testing identified Rod 3 as a potential anomaly; and upon proof load testing, it was determined that Rod 3 could not carry load. After removal it was observed that Rod 3 had both stripped threads and a fracture surface below the nut, in the stickout.
   - FHWA inquired whether UT took place before top stick-outs were cut off (at select locations for testing). It was clarified that UT was performed after cut off and that the length of the samples cut off were considered in establishing the expected length of each rod.

5) **Rod 3 Examination Presentation (A. Prchlik)**

   - Flash rust observed on fracture surface that was not there at time of removal.
   - Grout over two thread strip indicates grouting before some thread stripping.
   - The dominant feature of the fracture surface is cleavage and no evidence of intergranular failure was observed. It was clarified that only minor cleaning was performed on the fracture prior to this SEM examination.

6) **Overview of Tower Base Anchor Rod/T1 Foundation (B. Brignano)**

   B. Brignano presented the T1 foundation erection, concrete pours and tower anchor rod installation.
7) **PILECAP PRESENTATION: (G. HOULAHAN)**  
July 22, 2015

- Pilecap is a steel structure to reduce mass of footing and save on number of piles.
- Reinforced concrete encasement is for corrosion protection.
- Reinforcing bars in concrete encasement coated with epoxy per Caltrans requirements for rebar in splash zone.
- To effectively evaluate corrosion potential, it is necessary to know much water (if any) is getting into the pilecap; monitoring the water levels in the rod pipe sleeves would provide good information.
- Structural steel commonly used in marine foundations, sometimes with sacrificial anodes.
- FHWA agreed that estimating the flow rate into the foundation is necessary.
- FHWA recommended monitoring water level in all the rod pipe sleeves, and measuring the volumes of water removed from each location.

8) **TOWNSEND AND RAYMOND TEST RESULTS (B. MARONEY)**  
July 23, 2015

B. Maroney presented the test protocol and test results for the Townsend and Raymond Test on all A354 Grade BD rods on the SAS. The threshold for the tower base anchor rods was determined to be 0.85Fu or greater during this testing.

9) **ACTION PLAN AND TEST MATRIX DISCUSSION (ALL)**  
July 23, 2015

See attached matrix.

- FHWA was invited to visit Exova laboratories to observe additional microstructural / SEM examination should it move forward.
- J. Ocel suggested measuring potential between rod and foundation. (Item included in Topic G, Item G5)
- In general FHWA concurred with the test plan discussed and underway.
- In discussing possible rod removal and replacement options, B. Kozy commented that he recommended against removing the rods and favored options that maintain them in place.
- B. Kozy also noted that removing all existing grout and denso tape and replacing with new grout should be considered.
- B. Kozy recommended re-organizing the matrix per topic/theme.
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### SAS T1 Seismic Anchor Rods Expert Group

#### Recommendations Schedule

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<td>- Incorporate As-Built Material Properties of Plate &amp; Stiffeners</td>
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<td>- Re-run Sensitivity Studies varying # of Rods &amp; Ground Motions - Analyze Post Earthquake Performance</td>
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<td>- Recreate field conditions as best as possible</td>
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<td>Analysis of Thread Micro indication</td>
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<td>1. Measurements of Threads on Accessible Rods &amp; Nuts</td>
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<td>- Theds are in Spec. or out of spec?</td>
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<td>1. Seal Anchor Holes (Completed in item G)</td>
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**Mock Ups / Rods Mitigation**

- **Contract / Site Access**
- **Jacks Purchase / Procurement**
- **Mock-Ups**
- **Chapter Report**

**Field Mitigation Work (Grout Option: Detension, Water-Jet/Clean, Grout, Clean up)**

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**3D Modeling / Final Report**

- **3D Modeling**
- **Final Report**

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**LRA Lab**

- **METS Recommended Lab**

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**Seal Anchor Holes**

- **22-Sep-15**
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)  
DATE: September 17, 2015

FR: Brian Maroney, SFOBB Project Chief Engineer, Caltrans

RE: Agenda No. – 5c  
Item – Federal Highway Administration (FHWA) SAS Tower Anchor Rod Review

------

Recommendation:
INFORMATION

Costs:
NA

Discussion:
Since the tower seismic anchor rod materials investigation began in late 2014, Federal Highway Administration (FHWA) has been participating actively in engineering reviews and oversight. FHWA will present a summary of their review and current recommendations during the September 24th TBPOC meeting.
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)  
DATE: September 17, 2015

FR: Steven Whipple, SFOBB Principal Construction Manager, Caltrans/  
Deanna Vilcheck, SFOBB Area Construction Manager, Caltrans

RE: Agenda No. – 5d

Item- YBITS 2 Project Update

Recommendation:  
INFORMATION

Cost:  
NA

Schedule Impacts:  
NA

Discussion:  
The Department plans to provide an update on the on-going construction work on the Yerba Buena Island Transition Structure (YBITS) 2 contract at the September 24, 2015 TBPOC meeting.

The YBITS 2 project consists of the demolition of the Yerba Buena Island Detour structure and the cantilever section of the old east span of the Bay Bridge, the construction of the permanent east bound on-ramp (EBOR) from YBI to the new bridge, and improvements to the U.S. Coast Guard (USCG) base on YBI.

The Department’s current license with the USCG is scheduled to expire in December 2016. A license extension will be required from the USCG for construction through December 2017.

Below is a brief project update and discussion on pending changes.

Project Update Cantilever demolition was completed on June 11, 2015. Three columns from the Yerba Buena Island Detour (YBID) within the vicinity of the USCG station remain and currently are scheduled to be removed during winter of 2016. Possible schedule changes connected with proposed CCO 111 (discussed below) may move the demolition of these columns into October 2015.
The main superstructure of the EBOR is a cast-in-place pre-stressed concrete box girder bridge, with the overhang on the north side and bike path on the south side constructed independently and sequentially. The work on the EBOR is progressing slightly ahead of schedule. Overseas steel fabrication in Korea for the bike path beams (CCO 76) is planned to be delivered by the first week of October.

**Schedule:**
The baseline contractual completion date was February 29, 2016 (calendar day job with no allowance for weather days). The current completion date is June 2, 2017. CCO 76, bike path support beam changes, and draft CCO 44, additional embankment confinement system (ECS), also have the potential to extend the project completion date but they have not been incorporated into the project schedule since they are still under consideration by the Department and the contractor.

Completion of the onramp and bike path may be affected by the October 2015 delivery of the bike path beams. Schedule review indicates a push of the opening of the path to late January 2016. If weather forecasts of a wet winter are correct, further delay of the opening should be expected.

**Pending Changes:**
The following two CCOs (111 and 44) are under consideration at this time and may affect the USCG facility longer at YBI and extend completion of YBITS 2 work.

**CCO 111 - Re-sequencing of the USCG Base Work:**
The USCG license, allowing construction on USCG property, expires December 31, 2016. Other CCO work, related to the SFOBB new East Span projects, has delayed the completion of the YBITS 2 contract and work on USCG property until at least spring of 2017. The USCG has recently indicated that a secure base by June 30, 2016 that includes secure parking and the new guard booth will be a requirement of any license extension. It is anticipated that a formal letter from the USCG will be received the week of September 14th.

CCO 111 is being considered in cooperation with the USCG to allow the YBITS 2 contractor to work beyond December 31, 2016 and into 2017, but revises the return of some areas by June 30, 2016 at the request of the USCG. The area considered for completion by that date is in negotiation with the USCG and is expected to be significantly smaller than previous discussions. In order to prepare for the work, preliminary fencing has been initiated.
CCO 44 - Additional ECS Slope Work:
Draft CCO 44 adds additional embankment confinement system (ECS) work to the YBITS 2 contract. Currently, details related to the design and ECS material compatibility are being worked out with the designer and material supplier. Once those details are finalized, CCO discussions and final pricing will follow.

- Approval for CCO 111 and CCO 44 are not being requested at this time.
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)         DATE: September 17, 2015

FR: Bill Casey, SAS Resident Engineer, Caltrans District 4

RE: Agenda No. - 5e

Item- Oakland Touchdown (OTD) #2 Contract Acceptance

Recommendation:
INFORMATION

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
Flatiron West, Inc. is the prime contractor that is constructing the Oakland Touchdown #2 project, which completes the remaining portions of the Oakland Touchdown approach structures from the existing toll plaza to the new span. This work included the entire westbound structure and portions of the eastbound structure (not in conflict with the existing span) which were constructed under the Oakland Touchdown #1 contract. The OTD #2 construction contract started on June 25, 2012, and was substantially completed in September 2014.

The OTD2 Contract, which has been in plant establishment, is expected to be accepted on September 26, 2015.

Following contract acceptance, the Department will initiate the construction contract administration close out process.

If approved to proceed, the Contract Acceptance date will be 9/26, the close out process of a preliminary final estimate should be done no later than 10/25, and a final completed no later than 12/21.
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)  

DATE: September 17, 2015

FR: Steven Whipple, SFOBB Principal Construction Manager, Caltrans

RE: Agenda No. - 5f1

Item - 504/288 Superstructure Dismantling Contract Update

Recommendation:
INFORMATION

Cost:
N/A

Schedule Impacts:

The baseline schedule with revisions was accepted on August 27, 2015.

Discussion:

The 504-288 Superstructure Dismantling Contract work involves the removal the five - 504’ and fourteen - 288’ steel truss spans and the twenty one supporting steel columns. Below is a brief update as to the status of the Construction activities.

The Contractor has 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. The Contractor is performing phase 1 work with ongoing engineering and submittal effort to allow the start of the following six phases of work. The status of the work as of September 4, 2015 is as follows:

- Current operations:
  1. Phase One of Seven started on 6/9/2015.
     a. Removal of steel curbs, handrails, utilities, & other nonstructural steel ongoing;
     b. Upper and lower deck pavement marker button removal 100% complete;
     c. Upper deck
        i. Asphalt wearing surface removal 100% complete
        ii. Concrete deck removal 73% complete
iii. Removal of upper deck joist and stringers 72% complete
iv. Removal of upper deck floor beams 60% complete
d. Lower deck
i. Asphalt wearing surface removal 43% complete

2. Coordination with Museum/MTC for salvage material is ongoing. Artist proposing uses for Group B Salvage Elements – Three site visits completed on August 24, 2015, September 3, 2015, and September 10, 2015. It is anticipated the salvaged material will become available in August 2016.

- Major Submittal status:
  1. CPM Schedule Baseline has been accepted (August 27, 2015) – Major milestones are:
     a. First Chargeable Working Day - May 26, 2015
     b. Phase 1 completion – August 17, 2016
     c. Phase 2 completion – August 7, 2017
     d. Contract Completion – March 6, 2018
  2. SWPPP (revision for phase 2 work) in progress
  3. USCG (revision for phase 2 work) in progress
  4. Phase 2 Construction Engineering and Submittal work in progress

Risk Management:

N/A

Attachment(s):

a. Original East Span Demolition by the Numbers Fact Sheet
b. Phase One Bridge Removal Plan
c. Bridge Removal Status dated September 4, 2015
**ORIGINAL EAST SPAN DEMOLITION BY THE NUMBERS**

**CANTILEVER STRUCTURE:**
- Cantilever bridge steel – 20,412 tons
- Cantilever pier/foundation steel – 2,257 tons
- Cantilever concrete – 12,460 tons
- Cantilever pier/foundation concrete – 53,553 tons
- Height of tallest point of cantilever above the water – 382 feet

**BETWEEN PIERS E2 AND E3 (FIRST PHASE OF DEMOLITION):**
- Length of cantilever upper deck to be removed – 1,400 feet
- Amount of concrete to be removed – 2,125 tons
- Amount of rebar to be removed – 375 tons
- Amount of steel deck supports to be removed – 1,300 tons

**Yerba Buena Island Detour**
- .25 miles (1,314 feet)

**Cantilever Truss**
- .46 miles (2,420 feet)

**504’ Truss Spans**
- .49 miles (2,569 feet)

**288’ Truss Spans**
- .78 miles (4,104 feet)
Phase 1: Upper deck asphalt removal and initial truss removal
Phase 2: 504 FT span removal
Phase 3: Skewed 288 FT (E10 to E9) span removal
Phase 4: Straight 288 FT (E11 to E22) span removal
Phase 5: Oakland mole (E23 to E29) span removal
Phase 6: Pier E9 Span removal
Phase 7: Steel bent (E4 to E16) removal
504-288 Superstructure Dismantling Contract
Bridge Removal Status
September 4, 2015  (Page 1 of 2)

<table>
<thead>
<tr>
<th>Removal Status</th>
<th>Percentage Complete</th>
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<tr>
<td>Upper Deck AC Removal (100% of Total Done)</td>
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<tr>
<td>Saw-cut Upper Concrete Deck (77% of Total Done)</td>
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<tr>
<td>Upper Deck Removal (72.5% of Total Done)</td>
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<tr>
<td>Upper Deck Joist / Stringer Removal (71.8% of Total Done)</td>
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<tr>
<td>Upper Deck Floor Beam Removal (60% of Total Done)</td>
<td>50%</td>
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*Note: The table includes specific removal percentages for each section of the bridge, with the removal limit indicated by the line on the diagram.
## 504-288 Superstructure Dismantling Contract
### Bridge Removal Status
#### September 4, 2015

<table>
<thead>
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</thead>
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</tr>
<tr>
<td>Saw-cut Lower Concrete Deck Removal</td>
<td>0%</td>
</tr>
<tr>
<td>Lower Deck Concrete Removal</td>
<td>0%</td>
</tr>
<tr>
<td>Lower Deck Joist / Stringer Removal</td>
<td>0%</td>
</tr>
<tr>
<td>Lower Deck Floor Beam Removal</td>
<td>0%</td>
</tr>
</tbody>
</table>

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**Diagram**

- **504’ Span Trusses**
- **288’ Span Trusses**
- **Removal Limit**

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*Figure: Diagram showing the progress of various bridge removal sections.*
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)  DATE: September 17, 2015

FR: Brian Maroney, SFOBB Project Chief Engineer, Caltrans/
     Stefan Galvez, Chief, Office of Environmental Analysis, Caltrans

RE: Agenda No. - 5f2 and 5f3

Item- Pier E3 Demolition Contract and Permits Update

Recommendation:
APPROVAL

Cost:
A supplemental capital support of $750,000 is requested.
A supplemental capital outlay support of $1,313,000 is requested for Environmental A&E.
A supplemental capital outlay support of $898,000 is requested for Water Quality A&E.

Schedule:
Pier E3 drilling operations will begin in September 2015, permits for the controlled implosion are needed by late September 2015, and the implosion is scheduled for November 2015.

Discussion:
Pier E3 Demo Contract Construction Progress:

Kiewit/Manson, A Joint Venture (Contractor), began work at Pier E3 with mobilization and fender removal on June 2, 2015. Lower column concrete support and cell wall (above waterline concrete) demolition was completed in August 2015. Contractor disposed of the concrete pier cap material by depositing it into the caisson.

The Blast Attenuation System mock-up was installed and tested July 25th. Results were that system worked, air bubbles to the surface.

Notching the buttress walls began September 1st with an anticipated duration of two weeks. Drilling blast holes will begin mid-September.

For the implosion at E3, a rolling block closure of the Bay Bridge is being planned. CHP will roll traffic to a stop in both directions. Eastbound traffic will be stopped on the San Francisco side; Westbound will be stopped on the Oakland side. The duration could be as long as 15 minutes. Traffic will then be released in both directions. The date of this closure will be advertised with the use of fixed and portable changeable message signs as well as public information campaign. The bridge portion of the bicycle and pedestrian
Memorandum

path will be closed the day of the implosion but will open the remainder of the day following the bridge rolling block.

The bay waters will be patrolled in the vicinity of E3 which includes no boat access in the construction zone. This effort will be coordinated with CHP, Caltrans, US Coast Guard and contractor personnel.

Permits Status Related to Pier E3 Underwater Implosion:

United States Fish and Wildlife Service (USFWS):
- Memorandum of “no effect” for the federally protected California least tern was finalized on April 15, 2015.

National Marine Fisheries Service (NMFS):
- The Department submitted a Biological Assessment to NMFS on February 17, 2015.
- Biological Opinion was issued on August 27, 2015.

RWQCB:
- The Department submitted a Water Quality Study to RWQCB on 2/28/2015.
- SWPPP Amendment #4 for drilling and charges was submitted on July 17.
- RWQCB accepted SWPPP Amendment #4 July 21.

California Department of Fish and Wildlife (CDFW):
- The Department submitted a request for a major amendment to Incidental Take Permit No. 2081-2001-021-03 (ITP) on February 18, 2015.
- CDFW issued the amended ITP on August 12, 2015.

BCDC:
- BCDC request for Material Amendment No. 38 to BCDC Permit No. 2001.008 (formerly 8-01) was submitted on March 30th.
- BCDC commission voted unanimously to approve the Pier E3 amendment on September 17, 2015.

National Oceanic and Atmospheric Administration (NOAA) Marine Mammals:
- Incidental Harassment Authorization (IHA) for behavioral impacts to marine mammals was submitted to NOAA on March 3, 2015.
- The NOAA IHA was issued September 9, 2015.

USACE:
- USACE LOM to Permit No. 023013S was submitted on March 20, 2015.
- The LOM is expected to be issued within a week.

Stakeholder Outreach:
Memorandum

- The Department has undertaken extensive outreach with representatives from Save the Bay, Golden Gate Audubon Society, Sierra Club, The Bay Institute, Bay Keeper, Marine Mammal Center and Point Blue Conservation.

Final Environmental Impact Statement (FEIS) Revalidation:
- A revalidation of the SFOBB FEIS was completed September 17, 2015.

New Requirements
- The RWQCB, as part of its acceptance of SWPPP, required preparation and implementation of the following plans to determine the project impacts to the Bay:
  - Water Quality Sampling and Analysis
  - Sediment Quality Sampling and Analysis

- The ITP requires mitigation for impacts to California Endangered Species Act (CESA)-listed longfin smelt (LFS).
  - The ITP requires the Pier E3 Demonstration Project to mitigate for 4 acres of LFS habitat.
  - Mitigation will be fulfilled through the purchase of credits at a CDFW-approved mitigation bank at $150,000 per acre, for a total capital cost of $600,000.
  - The ITP amendment includes new monitoring conditions that increase the scope of work for Pier E3 including trawling for fish immediately after the controlled implosion, necropsy on covered, perished fish, and sonar scans of the project area before the blast.

- The IHA includes requirements to monitor marine mammals out to a distance of 26,500 feet from the blast and establishes expanded marine mammal exclusion zones.
Memorandum

Supplemental Funds request- Additional Costs from New Permit Requirements and Follow up Activities

- The new requirements will translate into additional scope and cost for both, capital costs and COS support as follows:

- The CDFW ITP mitigation costs for LFS impacts will be $600,000 (capital cost) and must be secured before implosion. Post implosion trawling and pre-blast sonar requirements are estimated at approximately $150,000 (capital cost).

SFOBB Environmental Monitoring and Compliance Contract

- The FY 15-16 budget for Environmental A&E support by AECOM is $900,000 to help with regulatory requirements for pre-existing contracts (YBITS2, 504/288s, OTD2, and Pier E3). However, new work associated with the Pier E3 controlled blasting and phase 2 of the marine foundations removal requires supplemental funds of approximately $1,313,000.

- The work associated with the permit requirements for the Pier E3 implosion and for Phase 2 of the marine foundation removal work following the Pier E3 implosion includes:
  - Monitoring and reporting requirements for the Pier E3 Demonstration Project, including NOAA’s expanded requirements to monitor marine mammals out to 26,500 feet and expanded marine mammal exclusion zones; additional monitoring and reporting for NOAA Fisheries’ Biological Opinion; and full level hydroacoustic and biological analysis of the implosion’s results.
  - Follow-up consultation with six resource and regulatory agencies
  - Preparation of technical studies and environmental document for the removal of the remaining piers.
  - New permits for phase 2 of the marine foundation removal
  - Development of new mitigation and/or specific monitoring requirements for phase 2 of the pier removal strategy.
  - Exploration of pier retention options, including new round of permits and development of potential mitigation off-set for pier retention.

SFOBB Water Quality Monitoring and Compliance

The FY 15-16 budget for Water Quality A&E support by Brown & Caldwell is $900,000. Supplemental funds in the amount of $898,000 (capital outlay support) are needed to comply with new requirements resulting from the RWQCB’s acceptance of the SWPPP Amendments on July 21 for the second phase of the Pier E3 Demonstration Project that involves controlled implosion. The RWQCB, as part of its acceptance, required preparation and implementation of the following plans to determine the project impacts to the Bay:

- Water Quality Sampling and Analysis
- Sediment Quality Sampling and Analysis
Failure to comply with these requirements can subject the Department to civil liability.

Supplemental funds are being requested in the amount of $898,000 to complete the new tasks listed below:

1. Pier E3 Implosion
   - Water Quality Monitoring (pre and post-blast)
   - Water Quality Monitoring for clamshell dredging following implosion
   - Sediment Quality (pre and post clamshell dredging)
   - Preparing Monitoring Reports

2. Consultations with RWQCB to seek approvals to proceed with removal of remaining marine foundations.

3. Water Quality Monitoring (SMP) for the Marine Foundations Contract
ITEM 5g1:
Pier E3 E2/T1 Foundation Construction
Contract Quality Assurance/Quality Control
Documentation

Item withdrawn from agenda and postponed to future meeting
Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC)  DATE: September 17, 2015

FR: Stephen Maller, Deputy Director/Chief Engineer, CTC

RE: Agenda No. - 5g2

Item- Proposal to Visit Record Keeping Operation of Oakland Army Base Redevelopment

Recommendation:
Approval

Cost:
NA

Schedule:
NA

Discussion:
Director Kempton visited the Proposition 1B funded Outer Harbor Intermodal Terminals (OHIT) project in Oakland on July 31, 2015. As part of the visit, Director Kempton was shown the OHIT project’s records storage facility and storage protocols. The records storage facility was very modern, efficient and information was easily retrievable. Director Kempton is requesting that the Toll Bridge Program Oversight Committee (TBPOC) in light of the record keeping problems with the Self-Anchored Suspension Span project visit the OHIT record storage facility in conjunction with the October 13, 2015, TBPOC meeting in Oakland.

Attachment:
None
ITEM 6: OTHER BUSINESS

a. Report on matters discussed and actions taken at Urgent Meeting

b. Report on matters discussed and actions taken during Executive Session
ITEM 7: GENERAL PUBLIC COMMENT