Agenda Item 4. Marine Foundation Demolition (E4-E18) - Contract Approval

TBPOC Meeting Update
March 28, 2016

Dan McElhinney, CT
Brian Maroney, CT
Chris Traina, CT
TBPOC Presentation Content

- Recommendation
- Overview
- CMGC Project Delivery Timeline
- Environmental Permit Update
- Summary of Risks
- Options Considered
- Cost Allocation Breakdown
- Budget Update
The TBPOC approved at the February 11, 2016 meeting an amount not to exceed $140 million for the Department to complete negotiations timely with Kiewit-Manson Joint Venture (KM) during March 2016 to keep on schedule for the removal of the marine foundations Piers E4 - E18.

The negotiations are complete and it is recommended that the TBPOC approve the Marine Foundation Demolition Contract (Piers E4-18) with a lower $130 million total contract allocation.
Program perspective on last major milestone - Brian Maroney.

An environmental mitigation contract that is focused on minimizing impact to the environment and staying on schedule to keep costs as low as possible.

The project has committed to the removal of the piers from the original east span of the SFOBB as part of the mitigation efforts to build the new east span.

The team continues to work closely with environmental agencies to pursue necessary permits for the marine foundation removals, ensuring significant environmental stewardship.

Approval today begins the final steps for demolition of the Old East Span.

Plan is to use the same successful implosion method that was used in November 2015 for Pier E3.

Upon approval, Piers E4 and E5 will be demolished in October/November 2016 depending on permits obtained.

The entire demolition process for the remaining structure is expected to last approximately three years.

Piers E6 through E11 will be demolished in the fall of 2017.

Piers E12 through E18 would then be removed in late 2018.

Additional information can be found at [www.BayBridgeInfo.org](http://www.BayBridgeInfo.org).
Project Overview – Scope of Work

- REMOVE PIERS E4 TO E18

PIERs
E4 to E18
Marine Foundation Removal Update
CMGC Project Delivery Timeline

- TBPOC Approval to Proceed – Completed February 11, 2016
- 90% Estimate Submittal- Completed February 16, 2016
- 90% Estimating Task Force Workshop- Completed February 18, 2016
- 100% PS&E and Scope Agreement- Completed March 3, 2016
- 100% Estimate Submittal- Completed March 8, 2016
- 100% Estimating Task Force Workshop- Completed March 10, 2016
- TBPOC Contract Approval Request – March 28, 2016 Meeting
- Contract Award- April 1, 2016
- Permits Approved Prior to Underwater Demolition – June 1, 2016
- Demolition of E4-E5 by Implosion – October/November 2016
- Demolish Piers E6 through E11 in the fall of 2017.
- Demolish Piers E12 through E18 in late 2018.
Pier E4

**Proposed Mechanical Demo Limit**
NGVD 29: +9.1’
MLLW: +12’

**M.L.L.W. Elev. 0**

**2015 Effective Mud Line Elev:**
NGVD 29: -45’
MLLW: -42.1’

**Proposed 90% Estimate Removal Limit (2016)**
NGVD 29: -48’
MLLW: -45.1’

**Blast Outside Walls**
NGVD 29: -50’
MLLW: -47.1’

**Blast Inside Walls**
NGVD: -70’
MLLW: -67.1’
Pier E6

2015 Effective Mudline Elev:
NGVD 29: -40’
MLLW: -37.1’

Proposed 90% Estimate Removal Limit (2016)
NGVD 29: -43’
MLLW: -41.9’

Proposed Mechanical Demo Limit
NGVD 29: +5.1’
MLLW: +8’

Blast To
NGVD 29: -46’
MLLW: -43.1’
Pier E17

Proposed Mechanical Demo Limit
NGVD 29: +5.1’
MLLW: +8’

2015 Effective Mudline Elev:
NGVD 29: -12.5’
MLLW: -9.6’

Proposed 90% Estimate Removal Limit (2016)
NGVD 29: -15.5’
MLLW: -12.6’

Blast WALLS To
NGVD 29: -25.9’
MLLW: -23.0’
Marine Foundations Removal Update
Mechanical Removal of Pier Tops
Marine Foundations Removal Update
Mechanical Removal of Pier Tops
Marine Foundations Removal Update
Drilling Operation
Marine Foundations Removal Update
Loading Operation
Demolition of Existing Piers With Controlled Blasting

- 2016 Season-Piers E4 and E5
- 2016 Season-13,000 Cubic Yards In Caissons
- 2017 Season-Pier E6 through Pier E11
- 2017 Season-16,000 Cubic Yards Upland Disposal
- 2018 Season-Pier E12 through Pier E18
- 2018 Season-10,000 Cubic Yards Upland Disposal
1. National Marine Fisheries Service (NMFS) Fisheries:
   - Biological Assessment for removal of Piers E4-E18 submittal target date is March 25, 2016.
   - NOAA BO target date July 15, 2016.

2. National Oceanic and Atmospheric Administration (NOAA) Marine Mammals:
   - Incidental Harassment Authorization (IHA) for impacts to marine mammals for piers E4 and E5 submitted to NOAA on March 10, 2016
   - Target date for NOAA IHA- July 15, 2016.
3. Department of Fish and Wildlife (CDFW):
   - Pre-application meeting with CDFW staff scheduled for March 25, 2016.
   - ITP submittal target date April 1, 2016
   - CDFW ITP issuance target date is July 21, 2016.

4. SFOBB Final Environmental Impact Statement Revalidation (FEIS)
   - Target Revalidation completion by August 1, 2016.
5. San Francisco Regional Water Quality Control Board (RWQCB):
   - Contractor is preparing SWPPP for dismantling of piers E4-E18, inclusive of mechanical dismantling and implosion activities.
   - Target date for submittal of contractor's SWPPP to the Department is March 31st
   - Target date for Department's SWPPP submittal to RWQCB is May 1, 2016.
   - Target date for RWQCB's acceptance of the SWPPP is June 1, 2016
6. United States Army Corps of Engineers (USACE):
   - USACE Letter of Modification (LOM) for pre-blast activities submittal target date is March 25, 2016
   - Target date for USACE issuance of LOM for pre-blast activities June 1, 2016 (requires previous acceptance of SWPPP by RWQCB)
   - Target date for submittal of USACE LOM for implosion of piers E4-E18 is March 31, 2016
   - Required public comment period is 30 days upon application deemed complete.
   - Target date for issuance of LOM by USACE is September 1, 2016
7. San Francisco Bay Conservation and Development Commission (BCDC):
   • Amendment request for pre-blast activities. Submittal target date is March 25, 2016
   • Target date for issuance of pre-blast activities amendment is June 1, 2016 (requires previous acceptance of SWPPP by RWQCB)
   • Target submittal date for requesting a material amendment to BCDC Permit No. 2001.008 (formerly 8-001) for implosion of Piers E4-E18 is March 31, 2016.
   • Target date for issuance material amendment is August 18, 2016 (Commission Hearing+ Vote).
Marine Foundation Removal
Summary of Risks

There are various risks to cost and scheduled inherent in this request for contract approval that are assumed to be mitigated:

1. With contract approval, the Department will award the contract by April 1, 2016, and the contractor can then initiate mobilization and supply activities to stay on schedule.
2. The adjacent contract stays on track pending weather or bird issues impacting Piers E4 and E5 being released to the project from the 504/288 contractor on July 13, 2016, so that these two piers will be demolished as scheduled in October/November 2016.
3. Obtain Required Environmental Permits Within Schedule
4. Approval of Implosion Window (2 Months in 2017 and 2018)
5. Assumes no additional environmental mitigation costs for E4-E18 removal and that the five piers (E2 and E19 - E22) that are to remain in place do obtain resource agency approval to remain, if not these would need to be funded and scheduled for demolition in 2018-19.
The PMT did evaluate, as per the TBPOC request on February 11, 2016, feasible options to accelerate the marine demolition work such as to demolish pier E6 this year as well as completing all demolition of piers E7-E18 in 2017 instead of some demolition in 2018-19.

Two main factors considered were the environmental permit constraints on implosion time, wildlife impact windows, and limitations of contractor resources to accelerate both contracts within the window.

If implemented there would be significant capital costs to accelerate, as much as ten times or more of any potential support cost savings of completing up to two years earlier.

Thus, this option was not found feasible and the proposal as outlined for recommendation today is the best path ahead for schedule and overall budget.
With the TBPOC’s approval of the final negotiated amount the Department can award the contract to K-M by April 1, 2016.

The $130 million allocation request includes:

- $101.1 million in Contract Bid Items
- $7.5 million in Supplemental Funds work
- $2.4 million in State Furnished Materials costs (1)
- $11 million in Contingency funds (2)
- $8 million in Contingent Work (3)

(1) typically known work which could not be quantified for bidding purposes.
(2) (3) versus $41 million in total risks assessed.
(3) additional work that was not included in the bid since it was not known if it would be required or necessary.
# Existing Bridge Dismantling Capital Outlay Only

<table>
<thead>
<tr>
<th>Allocated Projects</th>
<th>Approved CO Budget</th>
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</thead>
<tbody>
<tr>
<td>Cantilever</td>
<td>$69.0 M</td>
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<tr>
<td>504/288</td>
<td>$103.5 M</td>
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<tr>
<td>E3</td>
<td>$18.5 M</td>
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<tr>
<td><strong>Total CO Allocated</strong></td>
<td><strong>$191.0 M</strong></td>
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<tr>
<th>Remaining Funds in CO Budget</th>
<th>Approved CO Budget</th>
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<tr>
<td>Existing Bridge Dismantling Budget</td>
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<tr>
<td>Total CO Allocated</td>
<td>$191.0 M</td>
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<tr>
<td>Remaining CO Funds</td>
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<thead>
<tr>
<th>Draw From Program Contingency</th>
<th>Proposed CO Allocation for E4-E18</th>
<th>Remaining CO Funds</th>
<th>Draw From Program Contingency</th>
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<tbody>
<tr>
<td></td>
<td>$140.0 M</td>
<td>$55.5 M</td>
<td>$84.5 M*</td>
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<tr>
<td></td>
<td>$130.0 M*</td>
<td></td>
<td>$74.5 M*</td>
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*Reduced by $10 million during final CMGC contract negotiations and risk assessment during March 2016.*
## Existing Bridge Dismantling Capital Outlay Only

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Approved CO Budget</th>
<th>Q4 2015 Expenditures</th>
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<tbody>
<tr>
<td>Cantilever</td>
<td>$69.0 M</td>
<td>$68.5 M</td>
</tr>
<tr>
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<td>$103.5 M</td>
<td>$30.5 M</td>
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<tr>
<td>E3</td>
<td>$18.5 M</td>
<td>$17.1 M</td>
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<tr>
<td>E4-E18</td>
<td>$130.0 M*</td>
<td>$0</td>
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<tr>
<td>E2, E18-E22</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td><strong>Total CO Budget</strong></td>
<td><strong>$321.0 M</strong>**</td>
<td><strong>$116.1 M</strong>**</td>
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</tbody>
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** A savings of $28 million reduced from the May 2015 TBPOC Demolition Cost Estimate Presentation.
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QUESTIONS?