

File No. 170874

Committee Item No. 10  
Board Item No. 11

### COMMITTEE/BOARD OF SUPERVISORS

#### AGENDA PACKET CONTENTS LIST

Committee: Budget & Finance Committee

Date September 7, 2017

Board of Supervisors Meeting

Date September 19, 2017

#### Cmte Board

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| <input type="checkbox"/>            | <input type="checkbox"/>            | Ordinance                                    |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Legislative Digest                           |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Budget and Legislative Analyst Report        |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Youth Commission Report                      |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Introduction Form                            |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Department/Agency Cover Letter and/or Report |
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| <input type="checkbox"/>            | <input type="checkbox"/>            | Grant Information Form                       |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Grant Budget                                 |
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| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Contract/Agreement                           |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Form 126 – Ethics Commission                 |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Award Letter                                 |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Application                                  |
| <input type="checkbox"/>            | <input type="checkbox"/>            | Public Correspondence                        |

#### OTHER (Use back side if additional space is needed)

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| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>Port Commission Resolution</u> |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>Power Point Presentation</u>   |
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Completed by: Linda Wong Date September 1, 2017  
Completed by: Linda Wong Date September 11, 2017

AMENDED IN COMMITTEE

9/7/17

FILE NO. 170874

RESOLUTION NO.

1 [Professional Services Agreement - CH2M HILL Engineers, Inc. - Planning, Engineering,  
2 Environmental Services for the Seawall Resiliency Project - Not to Exceed \$39,984,714]

3 **Resolution approving and authorizing the Executive Director of the Port of San**  
4 **Francisco to execute a professional services agreement with CH2M HILL Engineers,**  
5 **Inc., for planning, engineering, and environmental services for the Seawall Resiliency**  
6 **Project, for an amount not to exceed \$39,984,714, and a term of ten years to commence**  
7 **on the later of October 2, 2017, or the effective date through October 1, 2027.**

8  
9 WHEREAS, The San Francisco Seawall is the foundation of more than three miles of  
10 San Francisco waterfront stretching from Fisherman's Wharf to Mission Creek; and

11 WHEREAS, The Seawall was built more than 100 years ago and requires significant  
12 improvements in order to withstand the next major earthquake and increasing flood risk from  
13 sea level rise and climate change; and

14 WHEREAS, The Port of San Francisco (Port) is undertaking the Seawall Resiliency  
15 Project to plan, design, entitle, and construct one or more Seawall improvement projects that  
16 will significantly lower earthquake safety and flood damage risks; and

17 WHEREAS, To complete the Seawall Resiliency Project, Port staff requires specialized  
18 planning, engineering, and environmental services, including assessment of existing  
19 conditions, multi-hazard risk assessment of the seawall and co-dependent facilities,  
20 development and evaluation of alternatives, selection of a preferred program including  
21 identification, preliminary design and engineering of critical projects, environmental review,  
22 permitting, stakeholder engagement, City staff training, and independent review of final design  
23 and construction; and

24 WHEREAS, The Port estimates these services to cost approximately \$40,000,000, and  
25 span a duration of 10 years; and

1           WHEREAS, on March 14, 2017, to procure these services the Port Commission  
2 authorized staff to issue a Request for Proposals ("RFP") to solicit and select a multi-  
3 disciplinary engineering and architecture consulting team to provide such services for the  
4 Seawall Resiliency Project (Port Commission Resolution 17-14); and

5           WHEREAS, On April 24, 2017, the Port advertised the RFP and received five  
6 proposals on June 2, 2017; and

7           WHEREAS, Port staff and the Contract Monitoring Division (CMD) found all the  
8 proposals to be responsive to the RFP, and an evaluation panel determined that the  
9 consulting firm CH2M HILL Engineers, Inc., submitted the highest-ranked proposal among the  
10 firms that responded to the RFP; and

11           WHEREAS, CMD has established a subcontracting goal of 15% for Local Business  
12 Enterprise (LBE) participation (of the total value of services to be provided) for this agreement;  
13 and

14           WHEREAS, CH2M HILL ENGINEERS, Inc., submitted a proposal committing to 21%  
15 LBE participation (of the total value of services to be provided) which will be incorporated into  
16 the agreement; and

17           WHEREAS, CH2M HILL ENGINEERS, Inc., has been deemed to be in compliance  
18 with the Equal Benefits Provisions of Chapter 12B of the City's Administrative Code; and

19           WHEREAS, Port staff have negotiated an acceptable agreement with CM2H HILL  
20 Engineers, Inc., for planning, engineering, and environmental services needed for the Seawall  
21 Resiliency Project, upon material terms that include an amount not to exceed \$39,984,714, a  
22 contract term of 10 years, and scope of services recited above, as indicated in the agreement  
23 on file with the Clerk of the Board of Supervisors in File No. 170874; and  
24  
25

1           WHEREAS, Partial funding for this agreement will be available at the time of execution  
2 of the agreement from a combination of General Fund, Port Capital, and contributions from  
3 the Municipal Transportation Agency and the Planning Department; and

4           WHEREAS, The remaining funding amount is subject to future funding sources that the  
5 Port is currently pursuing, including the potential 2018 Seawall General Obligation Bond; and

6           WHEREAS, On August 8, 2017, the San Francisco Port Commission approved  
7 Resolution No. 17-36 authorizing the Port Executive Director to execute an agreement with  
8 CH2M HILL Engineers, Inc., for planning, engineering, and environmental services for the  
9 Seawall Resiliency Project for an amount not to exceed \$39,984,714, and with a duration of  
10 10 years, and upon the material terms recited above, subject to approval by the San  
11 Francisco Board of Supervisors pursuant to San Francisco Charter, Section 9.118; now,  
12 therefore, be it

13           RESOLVED, That the Board of Supervisors hereby approves and authorizes the Port  
14 Executive Director to enter into an agreement with CH2M HILL ENGINEERS, Inc., for an  
15 amount not to exceed \$39,984,714, and a term of 10 years, upon the material terms recited  
16 above and substantially the form of agreement on file with the Clerk of the Board of  
17 Supervisors in File No. 170874; and, be it

18           FURTHER RESOLVED, That the Board of Supervisors hereby authorizes the Port  
19 Executive Director to enter into any additions, amendments, or other modifications to the  
20 agreement with CH2M HILL Engineers, Inc., and any other related documents or instruments,  
21 that the Port Executive Director determines, following consultation with the City Attorney, are  
22 in the Port's and City's best interests, do not materially decrease the Port's and City's benefits  
23 or materially increase the Port's and City's obligations or liabilities, and are appropriate and  
24 advisable to complete the proposed transaction, such determination to be conclusively  
25

1 evidenced by the execution and delivery by the Port Executive Director of any such additions,  
2 amendments, or other modifications; and, be it

3           FURTHER RESOLVED, That within thirty (30) days of the execution of the Agreement  
4 the Port Executive Director shall provide a copy of the signed contract to the Clerk of the  
5 Board for inclusion in the official file.

<p><b>Item 10</b> <b>File 17-0874</b></p>	<p><b>Department:</b> Port</p>
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**EXECUTIVE SUMMARY**

**Legislative Objective**

- Resolution approving and authorizing the Executive Director of the Port of San Francisco to execute a professional services agreement with CH2M Hill Engineers, Inc. for planning, engineering and environmental services for the Seawall Resiliency Project, for an amount not to exceed \$39,984,714 and a term of ten years to commence on the later of October 2, 2017, or the effect date through October 1, 2027, with one one-year option to extend.

**Key Points**

- The City’s current seawall was constructed over 100 years ago between 1879 and 1916. The seawall has eroded and deteriorated and needs to be upgraded to protect critical infrastructure from both sea level rise and seismic vulnerabilities.
- Initiated in 2015, the Port Commission approved the Seawall Resiliency Project, to initially focus on planning, program development, designing and constructing the most critical seismic and flood protection improvements by 2026, at an estimated cost of \$500 million.
- Based on a recent Request for Proposal (RFP) process conducted by the Port, CH2M HILL Engineers, Inc. was the highest ranked team to provide planning, engineering and environmental services for the Seawall Resiliency Project.

**Fiscal Impact**

- The total 180,938 hours and \$36,349,740 cost of the CH2M contract reflects an average rate of \$201 per hour. An additional ten percent contingency of \$3,634,974 results in a total not to exceed contract of \$39,984,714. Detailed tasks are shown in the Attachment.
- Funding sources for the \$39,984,714 contract include General Fund, Port capital budget, San Francisco Municipal Transportation Agency, Planning Department and other sources. To date, the project has received \$9,600,000, with \$5,600,000 dedicated to the contract. This leaves a remaining unfunded balance of \$34,384,714. A Seawall Finance Work Group is currently pursuing various funding strategies to fully fund the Seawall Resiliency Project, estimated to cost \$500 million.

**Policy Consideration**

- CH2M Hill Engineers may merge with Jacobs Engineering, which is based in Texas. Section 12X of the City’s Administrative Code restricts City departments from entering into contracts with firms based in states that have anti-LGBTQ laws, such as Texas. The City Attorney has determined that Section 12X does not apply to the subject contract as CH2M HILL is based in Colorado, which does not have anti-LGBTQ laws.

**Recommendations**

- Amend the proposed resolution to delete the language on page 1, lines 7 and 8 regarding one one-year option to extend the term of the proposed agreement.
- Approve the proposed resolution as amended.

**MANDATE STATEMENT**

City Charter Section 9.118(b) states that any contract entered into by a department, board or commission that (1) has a term of more than ten years, (2) requires expenditures of \$10 million or more, or (3) requires a modification of more than \$500,000 is subject to Board of Supervisors approval.

**BACKGROUND**

The City's current seawall, which extends for more than three miles on the Port's waterfront from Fisherman's Wharf to Mission Creek, was constructed over 100 years ago between 1879 and 1916. The current seawall has eroded and deteriorated and needs to be upgraded and improved to protect critical infrastructure from both sea level rise and seismic vulnerabilities. The Port is the lead agency for the restoration of the City's seawall.

Initiated in 2015, the Port's Seawall Resiliency Project is a major City and Port effort to improve the earthquake safety and performance of the City's seawall, provide near-term flood protection and plan for long-term resilience and adaptation of the northern waterfront. The northern waterfront extends from Fisherman's Wharf to Mission Creek/AT&T Park. The Port Commission has approved two major phases to this Project: (a) Phase I focuses on master planning, program development, designing and constructing the most critical seismic and flood protection improvements by 2026, which is anticipated to cost approximately \$500 million; and (b) Phase II would complete improvements and/or replacement of the remainder of the seawall, including all seismic and sea level rise adaptation measures addressing infrastructure, wharves, buildings, open space, utilities, and multi-modal transportation, estimated to take more than 20 years to complete and cost \$2 billion to \$5 billion.

**Professional Services Contract**

On March 14, 2017, the Port Commission authorized a Request for Proposals (RFP) to solicit and select a multi-disciplinary architecture and engineering team to provide planning, engineering and environmental services for the Seawall Resiliency Project for a not to exceed \$40,000,000. On April 24, 2017, Port staff issued the RFP. On June 2, 2017, the Port received five proposals from (1) AECOM Technical Services, Inc., (2) CH2M HILL Engineers, Inc., (3) Parsons Transportation Group, Inc., (4) Seawall Innovations (A Tetra Tech/GHD, Inc. Joint Venture), and (5) Stantec Consulting, Inc.

An evaluation panel scored the proposals and held oral interviews and found CH2M HILL Engineers, Inc. to be the highest ranked team based on their qualifications and proposal, which included a 21% commitment for Local Business Enterprise (LBE) subcontractor participation<sup>1</sup>.

<sup>1</sup> The CH2M HILL Engineers LBE subcontractors include Telamon Engineering for civil engineering and surveying, Structus Inc. for structural engineering, Hollins Consulting Inc. for construction management, Geotechnical Consultants Inc. for geotechnical engineering, Civic Edge Consulting for community relations, Saylor Consulting Group for value/quality engineering, AGS Inc. for environmental advisory services, RDJ Enterprises for strategic advising and community outreach, BAYCAT for arts and technology, Sedway Consulting Inc. for real estate appraisals and Square One Productions for architectural illustrations.

**DETAILS OF PROPOSED LEGISLATION**

The proposed resolution would approve and authorize the Executive Director of the Port of San Francisco to execute a professional services agreement with CH2M Hill Engineers, Inc. for planning, engineering and environmental services for the Seawall Resiliency Project, for an amount not to exceed \$39,984,714 and a term of ten years to commence on the later of October 2, 2017 or the effective date of the agreement through October 1, 2027, with one one-year option to extend.

Mr. Carlos Colon, Seawall Project Administrator for the Port, advises that the Port intends to remove the option to extend the term of the proposed agreement for one year. Therefore, the proposed resolution should be amended to delete this language on page 1, lines 7 and 8.

Under the proposed professional services agreement, CH2M Hill Engineers and their subcontractors will:

- Complete planning studies,
- Develop and assess alternatives,
- Select and define a preferred alternative,
- Complete engineering and design to 35 percent,
- Complete California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) approvals,
- Advance environmental and other permitting documents for construction,
- Develop and recommend final design and construction project delivery methods, and
- Assist with managing and reviewing final design and construction of the project.

The actual final design, construction and construction management of the seawall project will be handled under separate contracts.

On August 8, 2017, the Port Commission approved a resolution (Port Resolution No. 17-36) authorizing the Port Executive Director to execute an agreement with CH2M HILL Engineers, Inc. for planning, engineering and environmental services for the Seawall Resiliency Project for a not to exceed \$39,984,714, which includes a 10% contingency, for ten years, subject to Board of Supervisors approval.

**FISCAL IMPACT**

Table 1 below shows the total projected 180,938 hours and budget of \$36,349,740 for the CH2M HILL contract, divided into three phases of work. These costs reflect an overall average rate of \$201 per hour. In addition, the Port is requesting a ten percent contingency equal to \$3,634,974 for this contract, for a total not to exceed amount of \$39,984,714. The Attachment to this report provides the detailed tasks for each phase of the contract work.



**Table 1: CH2M HILL Contract**

Phases	Number of Hours	Proposed Budget
Phase 1-Planning	46,626	\$10,239,424
Phase 2-Design/Entitlements	99,849	18,505,154
Phase 3- Construction Management	34,463	7,605,162
Subtotal Contract	180,938	\$36,349,740
Contingency (10%)		<u>3,634,974</u>
<b>Total Not to Exceed Contract</b>		<b>\$39,984,714</b>

**Project Funding**

Funds for the total not to exceed \$39,984,714 contract between the Port and CH2M Hill are anticipated to come from a combination of General Fund, Port capital budget and contributions from the San Francisco Municipal Transportation Agency (SFMTA) and the Planning Department as well as other sources. To date, the project has received \$9,600,000 of funding from these sources, as shown in Table 2 below, with \$5,600,000 dedicated to the contract.

**Table 2: Funding Sources Available (millions)**

Sources	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
Port Capital	\$1.60	\$2.00	-	-	\$3.60
City General Fund	-	1.00	\$3.00	-	4.00
SFMTA Contributions	-	0.50	0.50	-	1.00
Planning Contributions	-	0.50	0.25	\$0.25	1.00
<b>Total</b>	<b>\$1.60</b>	<b>\$4.00</b>	<b>\$4.00</b>	<b>\$0.25</b>	<b>\$9.60</b>

Given that the Port has budgeted \$5,600,000 of the total \$39,984,714 not to exceed contract amount, there is a remaining unfunded balance of \$34,384,714.

Given the current shortfall in available funding, Mr. Colon advises that cost controls will be implemented during the ten-year term of this contract to insure that specific contract project tasks and task order scopes of work will not be authorized in excess of available funding.

**Future Potential Funding Sources**

The proposed resolution states that the remaining funding is subject to future funding sources that the Port is currently pursuing, including a potential 2018 Seawall General Obligation Bond. According to Mr. Colon, a Seawall Finance Work Group was formed, which recently issued a report<sup>2</sup> and is currently pursuing various potential funding strategies.

<sup>2</sup> Fortifying San Francisco's Great Seawall: Strategies for Funding the Seawall Resiliency Project. A report to the Capital Planning Committee and the Seawall Executive Steering Committee by the Seawall Finance Work Group, July 2017.

Future primary funding strategies include:

- (a) a \$350 million Seawall Fortification-General Obligation Bond in the City's 10-Year Capital Plan,
- (b) a Community Facilities District (CFD),
- (c) local Property Tax Increment revenue generated from an Infrastructure Finance District (IFD),
- (d) State Property Tax Increment revenue generated from an IFD through State legislation,
- (e) State General Obligation bond through State legislation, and
- (f) Federal U.S. Army Corps of Engineers Funding Program.

Secondary funding strategies include:

- (g) \$6-\$9 million Port Capital over next ten years,
- (h) local Sales Tax Increase revenues, and
- (i) additional tourism and hotel funding sources, such as a Hotel Assessment District or Transient Occupancy Tax.

These strategies would be used to fully fund this contract as well as the Port's overall Phase 1 of the Seawall Resiliency Project, estimated to cost approximately \$500 million.

## **POLICY CONSIDERATION**

CH2M HILL has notified the Port that the firm may merge with Jacobs Engineering Group Inc., which is based in Texas. Texas is a state that is currently prohibited by Section 12X of the City's Administrative Code, which restricts City departments from entering into agreements with firms that are based in states that have approved anti-LGBTQ laws. However, the City Attorney has determined that CH2M HILL, as the firm the Port is entering into the proposed contract which is based in Colorado, which has not approved anti-LGBTQ laws. Therefore, the City Attorney has determined that Section 12X does not apply to the subject contract. CH2M HILL has also agreed to incorporate in the subject contract language with the Port to preclude CH2M HILL staff located in 12X prohibited states from working on this project, to ensure that this Port contract does not result in new jobs being created in discriminatory states.

## **RECOMMENDATIONS**

1. Amend the proposed resolution to delete the language on page 1, lines 7 and 8 regarding one one-year option to extend the term of the proposed agreement.
2. Approve the proposed resolution as amended.

Task	Task Name	Total Hours	Total Price
Phase 1	1.01.00 Management and Coordination of Services, Phase 1	10,020	\$ 2,307,635
	1.02.00 Stakeholder Engagement, Phase 1	3,186	\$ 548,308
	1.03.01 Data Collection and Review	1,795	\$ 343,786
	1.03.02 Additional Investigations	940	\$ 244,205
	1.03.03 Existing Conditions Report	642	\$ 156,906
	1.04.01 Earthquake Risk Assessment	3,692	\$ 719,683
	1.04.02 Flood Risk Assessment and Adaptation Plan	3,144	\$ 587,903
	1.04.03 Utility Risk Assessment	1,370	\$ 210,852
	1.04.04 Transportation Risk Assessment	388	\$ 66,542
	1.04.05 Land Use Planning and Regulatory Assessment	840	\$ 208,421
	1.04.06 Urban Design Assessment	1,799	\$ 373,364
	1.04.07 Disaster Response and Recovery Assessment	756	\$ 193,476
	1.04.08 Environmental Conditions and Opportunities	2,858	\$ 433,022
	1.04.09 Economic Impact Assessment	1,040	\$ 263,038
	1.04.10 MHRA Report	3,598	\$ 901,407
	1.05.01 Design Criteria	1,102	\$ 276,911
	1.05.02 Needs, Risks, and Aspirations	768	\$ 188,852
	1.05.03 Alternative Formulation	2,450	\$ 616,599
	1.05.04 Alternative Comparison and Ranking	2,018	\$ 485,892
	1.05.05 Refine Design & Engineering of Highest Ranked Alternatives	1,482	\$ 377,219
	1.05.06 Final Evaluation, Selection and Preferred Program	1,588	\$ 435,925
	1.06.00 City Staff Training, Phase 1	200	\$ 35,460
	1.07.00 Seismic Peer Review Panel, Phase 1	950	\$ 264,017
<b>Subtotal Phase 1</b>		<b>46,626</b>	<b>\$ 10,239,424</b>
Phase 2	2.01.00 Management and Coordination of Services, Phase 2	14,867	\$ 3,429,455
	2.02.00 Stakeholder Engagement, Phase 2	4,110	\$ 700,414
	2.03.01 Design Basis Document (Initial Projects)	377	\$ 86,049
	2.03.02 Detailed Investigations, Design Level (Initial Projects)	6,116	\$ 1,140,997
	2.03.03 Preliminary Design, Engineering & Cost Est, General Plan (Initial Pro	6,860	\$ 1,373,706
	2.03.04 Preliminary Design, Engineering & Cost Est, 15% (Initial Projects)	3,505	\$ 640,929
	2.03.05 Preliminary Design, Engineering & Cost Est, 35% (Initial Projects)	2,600	\$ 511,262
	2.03.06 Design/Build Contract Packages (Initial Projects)	1,880	\$ 345,366
	2.04.00 Pilot Projects	3,396	\$ 604,939
	2.05.00 Emergency Projects	20,384	\$ 4,396,914
	2.06.01 CEQA	14,616	\$ 2,136,042
	2.06.02 NEPA	14,208	\$ 2,094,653
	2.06.03 Permitting	6,504	\$ 956,295
	2.07.00 City Staff Training, Phase 2	300	\$ 53,190
	2.08.00 Seismic Peer Review Panel, Phase 2	126	\$ 34,944
<b>Subtotal Phase 2</b>		<b>99,849</b>	<b>\$ 18,505,154</b>
Phase 3	3.01.00 Management and Coordination of Services, Phase 3	31,980	\$ 7,072,754
	3.02.00 Stakeholder Management, Phase 3	715	\$ 161,440
	3.03.00 Value Engineering	1,008	\$ 215,049
	3.04.00 Independent Design Review	760	\$ 155,920
<b>Subtotal Phase 3</b>		<b>34,463</b>	<b>\$ 7,605,162</b>
<b>Grand Total</b>		<b>180,938</b>	<b>\$ 36,349,740</b>

**City and County of San Francisco  
Office of Contract Administration  
Purchasing Division  
City Hall, Room 430  
1 Dr. Carlton B. Goodlett Place  
San Francisco, California 94102-4685**

**Agreement between the City and County of San Francisco and  
CH2M HILL Engineers, Inc.**

This Agreement is made this second day of October, 2017, in the City and County of San Francisco ("City"), State of California, by and between CH2M HILL Engineers, Inc., whose principal place of business is located at 150 Spear Street, Suite 750, San Francisco, CA 94105, hereinafter referred to as "Contractor" and the City and County of San Francisco, a municipal corporation, hereinafter referred to as "City".

**Recitals**

WHEREAS, the Port of San Francisco ("Department") wishes to contract for planning, preliminary engineering, and environmental services; and,

WHEREAS, this Agreement was competitively procured as required by San Francisco Administrative Code Chapter 21.1 through a Request for Proposal ("RFP") issued on April 24, 2017, in which City selected Contractor as the highest qualified scorer pursuant to the RFP; and

WHEREAS, the Local Business Entity ("LBE") subcontracting participation requirement for this Agreement is 21%.

WHEREAS, Contractor represents and warrants that it is qualified to perform the Services required by City as set forth under this Agreement; and

WHEREAS, the City's Civil Service Commission approved Contract number 45567-16/17 on May 15, 2017;

WHEREAS, approval for this Agreement was obtained by the Port Commission on August 8, 2017; and

WHEREAS, approval for this Agreement was obtained by the Board of Supervisors on \_\_\_\_\_.

Now, THEREFORE, the parties agree as follows:

**Article 1 Definitions**

The following definitions apply to this Agreement:

1.1 "Agreement" means this contract document, including all attached appendices, and all applicable City Ordinances and Mandatory City Requirements which are specifically incorporated into this Agreement by reference as provided herein.

1.2 "City" or "the City" means the City and County of San Francisco, a municipal corporation, acting by and through both its Director of the Office of Contract Administration or the Director's designated agent, hereinafter referred to as "Purchasing" and the Port of San Francisco."

1.3 "CMD" means the Contract Monitoring Division of the City.

1.4 "Contractor" or "Consultant" means between CH2M HILL Engineers, Inc., whose principal place of business is located at 150 Spear Street, Suite 750, San Francisco, CA 94105.

1.5 "Deliverables" means Contractor's work product resulting from the Services that are provided by Contractor to City during the course of Contractor's performance of the Agreement, including without limitation, the work product described in the "Scope of Services" attached as Appendix A.

1.6 "Effective Date" means the date upon which the City's Controller certifies the availability of funds for this Agreement as provided in Section 3.1.

1.7 "Mandatory City Requirements" means those City laws set forth in the San Francisco Municipal Code, including the duly authorized rules, regulations, and guidelines implementing such laws, that impose specific duties and obligations upon Contractor.

1.8 "Party" and "Parties" mean the City and Contractor either collectively or individually.

1.9 "Services" means the work performed by Contractor under this Agreement as specifically described in the "Scope of Services" attached as Appendix A, including all services, labor, supervision, materials, equipment, actions and other requirements to be performed and furnished by Contractor under this Agreement.

## Article 2 Term of the Agreement

2.1 The term of this Agreement shall commence on the later of: (i) October 2, 2017; or (ii) the Effective Date and expire on October 1, 2027, unless earlier terminated as otherwise provided herein.

2.2 The City has one option to renew the Agreement for a period of one year. The City may extend this Agreement beyond the expiration date by exercising an option at the City's sole and absolute discretion and by modifying this Agreement as provided in Section 11.5, "Modification of this Agreement."

## Article 3 Financial Matters

3.1 **Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation.** This Agreement is subject to the budget and fiscal provisions of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller, and the amount of City's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or

other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor's assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

**3.2 Guaranteed Maximum Costs.** The City's payment obligation to Contractor cannot at any time exceed the amount certified by City's Controller for the purpose and period stated in such certification. Absent an authorized Emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is the City required to honor, any offered or promised payments to Contractor under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount and the Parties having modified this Agreement as provided in Section 11.5, "Modification of this Agreement."

**3.3 Compensation.**

**3.3.1 Payment.** Contractor shall provide an invoice to the City on a monthly basis for Services completed in the immediate preceding month, unless a different schedule is set out in Appendix B, "Calculation of Charges." Compensation shall be made for Services identified in the invoice that the Executive Director, in his or her sole discretion, concludes has been satisfactorily performed. Payment shall be made within 30 calendar days of receipt of the invoice, unless the City notifies the Contractor that a dispute as to the invoice exists. In no event shall the amount of this Agreement exceed thirty six million three hundred forty nine thousand and seven hundred forty dollars (\$36,349,740). The breakdown of charges associated with this Agreement appears in Appendix B, "Calculation of Charges," attached hereto and incorporated by reference as though fully set forth herein. A portion of payment may be withheld until conclusion of the Agreement if agreed to both parties as retainage, described in Appendix B. In no event shall City be liable for interest or late charges for any late payments.

**3.3.2 Payment Limited to Satisfactory Services.** Contractor is not entitled to any payments from City until the Port of San Francisco approves Services, including any furnished Deliverables, as satisfying all of the requirements of this Agreement. Payments to Contractor by City shall not excuse Contractor from its obligation to replace unsatisfactory Deliverables, including equipment, components, materials, or Services even if the unsatisfactory character of such Deliverables, equipment, components, materials, or Services may not have been apparent or detected at the time such payment was made. Deliverables, equipment, components, materials and Services that do not conform to the requirements of this Agreement may be rejected by City and in such case must be replaced by Contractor without delay at no cost to the City.

**3.3.3 Withhold Payments.** If Contractor fails to provide Services in accordance with Contractor's obligations under this Agreement, the City may withhold any and all payments due Contractor until such failure to perform is cured, and Contractor shall not stop work as a result of City's withholding of payments as provided herein.

**3.3.4 Invoice Format.** Invoices furnished by Contractor under this Agreement must be in a form acceptable to the Controller and City, and must include a unique invoice

number. Payment shall be made by City as specified in 3.3.6 ,” or in such alternate manner as the Parties have mutually agreed upon in writing.

**3.3.5 LBE Payment and Utilization Tracking System.** Contractor must submit all required payment information using the online LBE Utilization Tracking System (LBEUTS) as required by CMD to enable the City to monitor Contractor's compliance with the LBE subcontracting commitments in this Agreement. Contractor shall pay its LBE subcontractors within three working days after receiving payment from the City, except as otherwise authorized by the LBE Ordinance. The Controller is not authorized to pay invoices submitted by Contractor prior to Contractor's submission of all required CMD payment information. Failure to submit all required payment information to the LBEUTS with each payment request may result in the Controller withholding 20% of the payment due pursuant to that invoice until the required payment information is provided. Following City's payment of an invoice, Contractor has ten calendar days to acknowledge using the online LBEUTS that all subcontractors have been paid. Contractor shall attend a LBEUTS training session. LBEUTS training session schedules are available at [www.sfgov.org/lbeuts](http://www.sfgov.org/lbeuts).

**3.3.6 Getting paid for goods and/or services from the City.**

(a) All City vendors receiving new contracts, contract renewals, or contract extensions must sign up to receive electronic payments through the City's Automated Clearing House (ACH) payments service/provider. Electronic payments are processed every business day and are safe and secure. To sign up for electronic payments, visit [www.sfgov.org/ach](http://www.sfgov.org/ach).

(b) The following information is required to sign up: (i) The enroller must be their company's authorized financial representative, (ii) the company's legal name, main telephone number and all physical and remittance addresses used by the company, (iii) the company's U.S. federal employer identification number (EIN) or Social Security number (if they are a sole proprietor), and (iv) the company's bank account information, including routing and account numbers.

**3.4 Audit and Inspection of Records.** Contractor agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its Services. Contractor will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not fewer than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later. The State of California or any Federal agency having an interest in the subject matter of this Agreement shall have the same rights as conferred upon City by this Section. Contractor shall include the same audit and inspection rights and record retention requirements in all subcontracts.

**3.5 Submitting False Claims.** The full text of San Francisco Administrative Code Chapter 21, Section 21.35, including the enforcement and penalty provisions, is incorporated into this Agreement. Pursuant to San Francisco Administrative Code §21.35, any contractor or subcontractor who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. A contractor or subcontractor will be deemed to have submitted a false

claim to the City if the contractor or subcontractor: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

### 3.6 Reserved (Payment of Prevailing Wages)

## Article 4 Services and Resources

4.1 **Services Contractor Agrees to Perform.** Contractor agrees to perform the Services provided for in Appendix A, "Scope of Services." Officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, Services beyond the Scope of Services listed in Appendix A, unless Appendix A is modified as provided in Section 11.5, "Modification of this Agreement."

4.2 **Qualified Personnel.** Contractor shall utilize only competent personnel under the supervision of, and in the employment of, Contractor (or Contractor's authorized subcontractors) to perform the Services. Contractor will comply with City's reasonable requests regarding assignment and/or removal of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor. Contractor shall commit adequate resources to allow timely completion within the project schedule specified in this Agreement.

### 4.3 Subcontracting.

4.3.1 Contractor may subcontract portions of the Services only upon prior written approval of City. Contractor is responsible for its subcontractors throughout the course of the work required to perform the Services. All Subcontracts must incorporate the terms of Article 10 "Additional Requirements Incorporated by Reference" of this Agreement, unless inapplicable. Neither Party shall, on the basis of this Agreement, contract on behalf of, or in the name of, the other Party. Any agreement made in violation of this provision shall be null and void.

4.3.2 City's execution of this Agreement constitutes its approval of the subcontractors listed below.

Arcadis US, Inc.	AGS, Inc.	Civic Edge Consulting, LLC
Baycat	CHS Consulting Group	Carollo Engineers, Inc.
CMG Landscape Architecture	Fugro USA Land, Inc.	Geotechnical Consultants, Inc.
GEHL Architects	Hollins Consulting, Inc.	HR&A Advisors, Inc.
ICF Jones & Stokes, Inc.	Kearns & West	Keyster Martson Assoc.
RDJ Enterprises, LLC	Saylor Consulting Group	Sedway Consulting, Inc.
Simpson, Gumpertz & Heger	Square One Productions	Telamon Engineering Consultants, Inc.
Structus, Inc.	TEF Design	WRA, Inc.

4.4 **Independent Contractor; Payment of Employment Taxes and Other Expenses.**



**4.4.1 Independent Contractor.** For the purposes of this Article 4, "Contractor" shall be deemed to include not only Contractor, but also any agent or employee of Contractor. Contractor acknowledges and agrees that at all times, Contractor or any agent or employee of Contractor shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work requested by City under this Agreement. Contractor, its agents, and employees will not represent or hold themselves out to be employees of the City at any time. Contractor or any agent or employee of Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor or any agent or employee of Contractor is liable for the acts and omissions of itself, its employees and its agents. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor's performing services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor or any agent or employee of Contractor. Any terms in this Agreement referring to direction from City shall be construed as providing for direction as to policy and the result of Contractor's work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Contractor performs work under this Agreement. Contractor agrees to maintain and make available to City, upon request and during regular business hours, accurate books and accounting records demonstrating Contractor's compliance with this section. Should City determine that Contractor, or any agent or employee of Contractor, is not performing in accordance with the requirements of this Agreement, City shall provide Contractor with written notice of such failure. Within five (5) business days of Contractor's receipt of such notice, and in accordance with Contractor policy and procedure, Contractor shall remedy the deficiency. Notwithstanding, if City believes that an action of Contractor, or any agent or employee of Contractor, warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

**4.4.2 Payment of Employment Taxes and Other Expenses.** Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of collection of any employment taxes, the amounts payable under this Agreement shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to the preceding two paragraphs shall be solely for the purposes of the particular tax in question, and for all other purposes of this Agreement, Contractor shall not be considered an employee of City. Notwithstanding the foregoing, Contractor agrees to indemnify and save harmless City and its

officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorneys' fees, arising from this section.

4.5 **Assignment.** The Services to be performed by Contractor are personal in character and neither this Agreement nor any duties or obligations hereunder may be assigned or delegated by Contractor unless first approved by City by written instrument executed and approved in the same manner as this Agreement. Any purported assignment made in violation of this provision shall be null and void.

4.6 **Warranty.** Contractor warrants to City that the Services will be performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that all Services performed are correct and appropriate for the purposes contemplated in this Agreement.

4.7 **Bonding Requirements.** The Contractor is required to furnish a performance bond on the form in a form acceptable to the City, in a sum of not less than [insert bonding level] of the annual amount of the contract to guarantee the faithful performance of this contract. The bond must be approved as to sufficiency and qualifications of the surety by the Controller.

## **Article 5 Insurance and Indemnity**

### **5.1 Insurance.**

5.1.1 **Required Coverages.** Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

- (a) Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, injury, or illness; and
- (b) Commercial General Liability Insurance with limits not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations; and
- (c) Commercial Automobile Liability Insurance with limits not less than \$1,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable.
- (d) Professional liability insurance, applicable to Contractor's profession, with limits not less than \$1,000,000 each claim with respect to negligent acts, errors or omissions in connection with the Services.

5.1.2 Commercial General Liability and Commercial Automobile Liability Insurance policies must be endorsed to provide:

- (a) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.
- (b) That such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

5.1.3 All policies shall be endorsed to provide thirty (30) days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in Section 11.1, entitled "Notices to the Parties."

5.1.4 Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of three years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

5.1.5 Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general annual aggregate limit shall be double the occurrence or claims limits specified above.

5.1.6 Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

5.1.7 Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to City, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

5.1.8 The Workers' Compensation policy(ies) shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

5.1.9 If Contractor will use any subcontractor(s) to provide Services, Contractor shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco, its officers, agents and employees and the Contractor as additional insureds.

5.1.10 Should there be a change in scope of work, the City's Risk Management Division reserves the right to amend any and all insurance requirements.

**5.2 Indemnification For Design Professionals.** To the fullest extent permitted by law, Contractor shall assume the defense of (with legal counsel subject to approval of the City), indemnify and save harmless the City, its boards, commissions, officers, and employees (collectively "Indemnitees"), from and against any and all claims, loss, cost, damage, injury (including, without limitation, injury to or death of an employee of the Contractor or its subconsultants), expense and liability of every kind, nature, and description (including, without limitation, incidental and consequential damages, court costs, attorneys' fees, litigation expenses, fees of expert consultants or witnesses in litigation, and costs of investigation), that arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or

willful misconduct of the Contractor, any subconsultant, anyone directly or indirectly employed by them, or anyone that they control (collectively, "Liabilities").

**5.2.1 Limitations.** No insurance policy covering the Contractor's performance under this Agreement shall operate to limit the Contractor's Liabilities under this provision. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities. The Contractor assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnatee or the contractors of any Indemnatee.

**5.2.2 Copyright Infringement.** Contractor shall also indemnify, defend and hold harmless all Indemnitees from all suits or claims for infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark, or any other proprietary right of any person or persons in consequence of the use by the City, or any of its boards, commissions, officers, or employees of articles, work or deliverables supplied in the performance of Services. Infringement of patent rights, copyrights, or other proprietary rights in the performance of this Agreement, if not the basis for indemnification under the law, shall nevertheless be considered a material breach of contract.

## **Article 6 Liability of the Parties**

**6.1 Liability of City.** CITY'S PAYMENT OBLIGATIONS UNDER THIS AGREEMENT SHALL BE LIMITED TO THE PAYMENT OF THE COMPENSATION PROVIDED FOR IN SECTION 3.3.1, "PAYMENT," OF THIS AGREEMENT. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT SHALL CITY BE LIABLE, REGARDLESS OF WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SERVICES PERFORMED IN CONNECTION WITH THIS AGREEMENT.

**6.2 Liability for Use of Equipment.** City shall not be liable for any damage to persons or property as a result of the use, misuse or failure of any equipment used by Contractor, or any of its subcontractors, or by any of their employees, even though such equipment is furnished, rented or loaned by City.

**6.3 Liability for Incidental and Consequential Damages.** Contractor shall be responsible for incidental and consequential damages resulting in whole or in part from Contractor's acts or omissions.

## **Article 7 Payment of Taxes**

**7.1** Except for any applicable California sales and use taxes charged by Contractor to City, Contractor shall pay all taxes, including possessory interest taxes levied upon or as a result of this Agreement, or the Services delivered pursuant hereto. Contractor shall remit to the State of California any sales or use taxes paid by City to Contractor under this Agreement. Contractor agrees to promptly provide information requested by the City to verify Contractor's compliance with any State requirements for reporting sales and use tax paid by City under this Agreement.

**7.2** Contractor acknowledges that this Agreement may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Agreement entitles the Contractor to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

7.2.1 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that Contractor, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest.

7.2.2 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Agreement may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Agreement. Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

7.2.3 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

7.2.4 Contractor further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

## **Article 8 Termination and Default**

### **8.1 Termination for Convenience**

8.1.1 City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall exercise this option by giving Contractor written notice of termination. The notice shall specify the date on which termination shall become effective.

8.1.2 Upon receipt of the notice of termination, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions shall include, without limitation:

(a) Halting the performance of all Services under this Agreement on the date(s) and in the manner specified by City.

(b) Terminating all existing orders and subcontracts, and not placing any further orders or subcontracts for materials, Services, equipment or other items.

(c) At City's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, City shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

(d) Subject to City's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.

(e) Completing performance of any Services that City designates to be completed prior to the date of termination specified by City.

(f) Taking such action as may be necessary, or as the City may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which City has or may acquire an interest.

8.1.3 Within 30 days after the specified termination date, Contractor shall submit to City an invoice, which shall set forth each of the following as a separate line item:

(a) The reasonable cost to Contractor, without profit, for all Services prior to the specified termination date, for which Services City has not already tendered payment. Reasonable costs may include a reasonable allowance for actual overhead, not to exceed a total of 10% of Contractor's direct costs for Services. Any overhead allowance shall be separately itemized. Contractor may also recover the reasonable cost of preparing the invoice.

(b) A reasonable allowance for profit on the cost of the Services described in the immediately preceding subsection (a), provided that Contractor can establish, to the satisfaction of City, that Contractor would have made a profit had all Services under this Agreement been completed, and provided further, that the profit allowed shall in no event exceed 5% of such cost.

(c) The reasonable cost to Contractor of handling material or equipment returned to the vendor, delivered to the City or otherwise disposed of as directed by the City.

(d) A deduction for the cost of materials to be retained by Contractor, amounts realized from the sale of materials and not otherwise recovered by or credited to City, and any other appropriate credits to City against the cost of the Services or other work.

8.1.4 In no event shall City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by City, except for those costs specifically enumerated and described in Section 8.1.3. Such non-recoverable costs include, but are not limited to, anticipated profits on the Services under this Agreement, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, prejudgment interest, or any other expense which is not reasonable or authorized under Section 8.1.3.

8.1.5 In arriving at the amount due to Contractor under this Section, City may deduct: (i) all payments previously made by City for Services covered by Contractor's final invoice; (ii) any claim which City may have against Contractor in connection with this Agreement; (iii) any invoiced costs or expenses excluded pursuant to the immediately preceding subsection 8.1.4; and (iv) in instances in which, in the opinion of the City, the cost of any Service performed under this Agreement is excessively high due to costs incurred to remedy or replace defective or rejected Services, the difference between the invoiced amount and City's estimate of the reasonable cost of performing the invoiced Services in compliance with the requirements of this Agreement.

8.1.6 City's payment obligation under this Section shall survive termination of this Agreement.

**8.2 Termination for Default; Remedies.**

8.2.1 Each of the following shall constitute an immediate event of default (“Event of Default”) under this Agreement:

(a) Contractor fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement:

3.5	Submitting False Claims.	10.10	Alcohol and Drug-Free Workplace
4.5	Assignment	10.13	Working with Minors
Article 5	Insurance and Indemnity	11.10	Compliance with Laws
Article 7	Payment of Taxes	13.1	Nondisclosure of Private, Proprietary or Confidential Information

(b) Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, including any obligation imposed by ordinance or statute and incorporated by reference herein, and such default continues for a period of ten days after written notice thereof from City to Contractor:

(c) Contractor (i) is generally not paying its debts as they become due; (ii) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors’ relief law of any jurisdiction; (iii) makes an assignment for the benefit of its creditors; (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Contractor or of any substantial part of Contractor’s property; or (v) takes action for the purpose of any of the foregoing.

(d) A court or government authority enters an order (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Contractor or with respect to any substantial part of Contractor’s property, (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors’ relief law of any jurisdiction or (iii) ordering the dissolution, winding-up or liquidation of Contractor.

8.2.2 On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, where applicable, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Contractor any Event of Default; Contractor shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law. City shall have the right to offset from any amounts due to Contractor under this Agreement or any other agreement between City and Contractor: (i) all damages, losses, costs or expenses incurred by City as a result of an Event of Default; and (ii) any liquidated damages levied upon Contractor pursuant to the terms of this Agreement; and (iii), any damages imposed by any ordinance or statute that is incorporated into this Agreement by reference, or into any other agreement with the City.

8.2.3 All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

8.2.4 Any notice of default must be sent by registered mail to the address set forth in Article 11.

8.3 **Non-Waiver of Rights.** The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

8.4 **Rights and Duties upon Termination or Expiration.**

8.4.1 This Section and the following Sections of this Agreement listed below, shall survive termination or expiration of this Agreement:

3.3.2	Payment Limited to Satisfactory Services	9.1	Ownership of Results
3.3.7(a)	Grant Funded Contracts - Disallowance	9.2	Works for Hire
3.4	Audit and Inspection of Records	11.6	Dispute Resolution Procedure
3.5	Submitting False Claims	11.7	Agreement Made in California; Venue
Article 5	Insurance and Indemnity	11.8	Construction
6.1	Liability of City	11.9	Entire Agreement
6.3	Liability for Incidental and Consequential Damages	11.10	Compliance with Laws
Article 7	Payment of Taxes	11.11	Severability
8.1.6	Payment Obligation	13.1	Nondisclosure of Private, Proprietary or Confidential Information

8.4.2 Subject to the survival of the Sections identified in Section 8.4.1, above, if this Agreement is terminated prior to expiration of the term specified in Article 2, this Agreement shall be of no further force or effect. Contractor shall transfer title to City, and deliver in the manner, at the times, and to the extent, if any, directed by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City.

**Article 9 Rights In Deliverables**

9.1 **Ownership of Results.** Any interest of Contractor or its subcontractors, in the Deliverables, including any drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by



Contractor or its subcontractors for the purposes of this agreement, shall become the property of and will be transmitted to City. However, unless expressly prohibited elsewhere in this Agreement, Contractor may retain and use copies for reference and as documentation of its experience and capabilities.

**9.2 Works for Hire.** If, in connection with Services, Contractor or its subcontractors creates Deliverables including, without limitation, artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, diagrams, surveys, blueprints, source codes, or any other original works of authorship, whether in digital or any other format, such works of authorship shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works shall be the property of the City. If any Deliverables created by Contractor or its subcontractor(s) under this Agreement are ever determined not to be works for hire under U.S. law, Contractor hereby assigns all Contractor's copyrights to such Deliverables to the City, agrees to provide any material and execute any documents necessary to effectuate such assignment, and agrees to include a clause in every subcontract imposing the same duties upon subcontractor(s). With City's prior written approval, Contractor and its subcontractor(s) may retain and use copies of such works for reference and as documentation of their respective experience and capabilities.

#### **Article 10 Additional Requirements Incorporated by Reference**

**10.1 Laws Incorporated by Reference.** The full text of the laws listed in this Article 10, including enforcement and penalty provisions, are incorporated by reference into this Agreement. The full text of the San Francisco Municipal Code provisions incorporated by reference in this Article and elsewhere in the Agreement ("Mandatory City Requirements") are available at [http://www.amlegal.com/codes/client/san-francisco\\_ca/](http://www.amlegal.com/codes/client/san-francisco_ca/).

**10.2 Conflict of Interest.** By executing this Agreement, Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 *et seq.*), or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 *et seq.*), and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this Agreement.

**10.3 Prohibition on Use of Public Funds for Political Activity.** In performing the Services, Contractor shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. Contractor is subject to the enforcement and penalty provisions in Chapter 12G.

**10.4 Reserved.**

**10.5 Nondiscrimination Requirements.**

**10.5.1 Non Discrimination in Contracts.** Contractor shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. Contractor shall incorporate by reference in all subcontracts the provisions of Sections 12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code and shall require all subcontractors to comply with such provisions. Contractor is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

**10.5.2 Nondiscrimination in the Provision of Employee Benefits.** San Francisco Administrative Code 12B.2. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

**10.6 Local Business Enterprise and Non-Discrimination in Contracting Ordinance.** Contractor shall comply with all applicable provisions of Chapter 14B ("LBE Ordinance"). Contractor is subject to the enforcement and penalty provisions in Chapter 14B. Contractor shall utilize LBE Subcontractors for at least 21% of the Services except as otherwise authorized in writing by the Director of CMD. Contractor shall incorporate the requirements of the LBE Ordinance in each subcontract made in the fulfillment of Contractor's LBE subcontracting commitments.

**10.7 Minimum Compensation Ordinance.** Contractor shall pay covered employees no less than the minimum compensation required by San Francisco Administrative Code Chapter 12P. Contractor is subject to the enforcement and penalty provisions in Chapter 12P. By signing and executing this Agreement, Contractor certifies that it is in compliance with Chapter 12P.

**10.8 Health Care Accountability Ordinance.** Contractor shall comply with San Francisco Administrative Code Chapter 12Q. Contractor shall choose and perform one of the Health Care Accountability options set forth in San Francisco Administrative Code Chapter 12Q.3. Contractor is subject to the enforcement and penalty provisions in Chapter 12Q.

**10.9 First Source Hiring Program.** Contractor must comply with all of the provisions of the First Source Hiring Program, Chapter 83 of the San Francisco Administrative Code, that apply to this Agreement, and Contractor is subject to the enforcement and penalty provisions in Chapter 83.

**10.10 Alcohol and Drug-Free Workplace.** City reserves the right to deny access to, or require Contractor to remove from, City facilities personnel of any Contractor or subcontractor who City has reasonable grounds to believe has engaged in alcohol abuse or illegal drug activity which in any way impairs City's ability to maintain safe work facilities or to protect the health and well-being of City employees and the general public. City shall have the right of final approval for the entry or re-entry of any such person previously denied access to, or removed from, City facilities. Illegal drug activity means possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances for which the individual lacks a valid prescription. Alcohol abuse means possessing, furnishing, selling, offering, or using alcoholic beverages, or being under the influence of alcohol.

Contractor agrees in the performance of this Agreement to maintain a drug-free workplace by notifying employees that unlawful drug use is prohibited and specifying what actions will be taken against employees for violations; establishing an on-going drug-free awareness program that includes employee notification and, as appropriate, rehabilitation. Contractor can comply with this requirement by implementing a drug-free workplace program that complies with the Federal Drug-Free Workplace Act of 1988 (41 U.S.C. § 701).

**10.11 Limitations on Contributions.** By executing this Agreement, Contractor acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor must inform each such person of the limitation on contributions imposed by Section 1.126 and provide the names of the persons required to be informed to City.

**10.12 Reserved (Slavery Era Disclosure)**

**10.13 Reserved (Working with Minors)**

**10.14 Consideration of Criminal History in Hiring and Employment Decisions.**

10.14.1 Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T, "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the San Francisco Administrative Code ("Chapter 12T"), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the Chapter 12T is available on the web at <http://sfgov.org/olse/fco>. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

10.14.2 The requirements of Chapter 12T shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco. Chapter 12T shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

**10.15 Reserved (Public Access to Nonprofit Records and Meetings)**

**10.16 Food Service Waste Reduction Requirements.** Contractor shall comply with the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including but not limited to the remedies for noncompliance provided therein.

10.17 **Reserved (Sugar-Sweetened Beverage Prohibition)**

10.18 **Reserved (Tropical Hardwood and Virgin Redwood Ban)**

10.19 **Reserved (Preservative Treated Wood Products)**

#### **Article 11 General Provisions**

11.1 **Notices to the Parties.** Unless otherwise indicated in this Agreement, all written communications sent by the Parties may be by U.S. mail or e-mail, and shall be addressed as follows:

To City: Steven Reel  
Project Manager, Seawall Resiliency Project  
Port of San Francisco  
Pier 1, The Embarcadero  
Steven.Reel@sfport.com

To Contractor: Patrick King  
Senior Vice President  
CH2M – Ports & Maritime Group  
150 Spear Street, Suite 750  
San Francisco, CA 94105  
Patrick.King@ch2m.com

Any notice of default must be sent by registered mail. Either Party may change the address to which notice is to be sent by giving written notice thereof to the other Party. If email notification is used, the sender must specify a receipt notice.

11.2 **Compliance with Americans with Disabilities Act.** Contractor shall provide the Services in a manner that complies with the Americans with Disabilities Act (ADA), including but not limited to Title II's program access requirements, and all other applicable federal, state and local disability rights legislation.

11.3 **Reserved.**

11.4 **Sunshine Ordinance.** Contractor acknowledges that this Agreement and all records related to its formation, Contractor's performance of Services, and City's payment are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state or local law.

11.5 **Modification of this Agreement.** This Agreement may not be modified, nor may compliance with any of its terms be waived, except as noted in Section 11.1, "Notices to Parties," regarding change in personnel or place, and except by written instrument executed and approved in the same manner as this Agreement. Contractor shall cooperate with Department to submit to the Director of CMD any amendment, modification, supplement or change order that would result in a cumulative increase of the original amount of this Agreement by more than 20% (CMD Contract Modification Form).

11.6 **Dispute Resolution Procedure.**

**11.6.1 Negotiation; Alternative Dispute Resolution.** The Parties will attempt in good faith to resolve any dispute or controversy arising out of or relating to the performance of services under this Agreement. If the Parties are unable to resolve the dispute, then, pursuant to San Francisco Administrative Code Section 21.36, Contractor may submit to the Contracting Officer a written request for administrative review and documentation of the Contractor's claim(s). Upon such request, the Contracting Officer shall promptly issue an administrative decision in writing, stating the reasons for the action taken and informing the Contractor of its right to judicial review. If agreed by both Parties in writing, disputes may be resolved by a mutually agreed-upon alternative dispute resolution process. If the parties do not mutually agree to an alternative dispute resolution process or such efforts do not resolve the dispute, then either Party may pursue any remedy available under California law. The status of any dispute or controversy notwithstanding, Contractor shall proceed diligently with the performance of its obligations under this Agreement in accordance with the Agreement and the written directions of the City. Neither Party will be entitled to legal fees or costs for matters resolved under this section.

**11.6.2 Government Code Claim Requirement.** No suit for money or damages may be brought against the City until a written claim therefor has been presented to and rejected by the City in conformity with the provisions of San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq. Nothing set forth in this Agreement shall operate to toll, waive or excuse Contractor's compliance with the California Government Code Claim requirements set forth in San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq.

**11.7 Agreement Made in California; Venue.** The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

**11.8 Construction.** All paragraph captions are for reference only and shall not be considered in construing this Agreement.

**11.9 Entire Agreement.** This contract sets forth the entire Agreement between the parties, and supersedes all other oral or written provisions. This Agreement may be modified only as provided in Section 11.5, "Modification of this Agreement."

**11.10 Compliance with Laws.** Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and duly adopted rules and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

**11.11 Severability.** Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

11.12 **Cooperative Drafting.** This Agreement has been drafted through a cooperative effort of City and Contractor, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

11.13 **Order of Precedence.** Contractor agrees to perform the services described below in accordance with the terms and conditions of this Agreement, implementing task orders, the RFP, and Contractor's proposal dated June 2, 2017. The RFP and Contractor's proposal are incorporated by reference as though fully set forth herein. Should there be a conflict of terms or conditions, this Agreement and any implementing task orders shall control over the RFP and the Contractor's proposal.

## **Article 12 Department Specific Terms**

12.1 **Reserved.**

## **Article 13 Data and Security**

13.1 **Nondisclosure of Private, Proprietary or Confidential Information.**

13.1.1 If this Agreement requires City to disclose "Private Information" to Contractor within the meaning of San Francisco Administrative Code Chapter 12M, Contractor and subcontractor shall use such information only in accordance with the restrictions stated in Chapter 12M and in this Agreement and only as necessary in performing the Services. Contractor is subject to the enforcement and penalty provisions in Chapter 12M.

13.1.2 In the performance of Services, Contractor may have access to City's proprietary or confidential information, the disclosure of which to third parties may damage City. If City discloses proprietary or confidential information to Contractor, such information must be held by Contractor in confidence and used only in performing the Agreement. Contractor shall exercise the same standard of care to protect such information as a reasonably prudent contractor would use to protect its own proprietary or confidential information.

13.2 **Reserved (Payment Card Industry ("PCI") Requirements)**

13.3 **Reserved (Business Associate Agreement)**

## **Article 14 MacBride And Signature**

14.1 **MacBride Principles - Northern Ireland.** The provisions of San Francisco Administrative Code §12F are incorporated herein by this reference and made part of this Agreement. By signing this Agreement, Contractor confirms that Contractor has read and understood that the City urges companies doing business in Northern Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

**CITY**

**CONTRACTOR**

Recommended by:

CH2M HILL Engineers, Inc.

\_\_\_\_\_  
Steven Reel  
Project Manager, Seawall Resiliency Project  
Port of San Francisco

\_\_\_\_\_  
Patrick King  
Senior Vice President  
CH2M - Ports & Maritime Group  
150 Spear Street, Suite 750  
San Francisco, CA 94105

City vendor number: 86818

\_\_\_\_\_  
Elaine Forbes  
Executive Director  
Port of San Francisco

Approved as to Form:

Dennis J. Herrera  
City Attorney

By:

\_\_\_\_\_  
Timothy Yoshida  
Deputy City Attorney

Approved:

\_\_\_\_\_  
Jaci Fong  
Director of the Office of Contract Administration,  
and Purchaser

**Appendices**

A: Scope of Services

- B: Calculation of Charges
- C: Hourly Rate Schedule
- D: Organizational Chart

DRAFT



## **Appendix A Scope of Services**

Contractor agrees to perform services under this Agreement in accordance with the terms of this Agreement, the RFP, and its proposal dated **June 2, 2017**. The RFP and Contractor's proposal are incorporated by reference into this Agreement as though fully set forth herein. In the event of an inconsistency or conflict between the RFP and Contractor's proposal, the RFP shall take precedence. This Agreement shall take precedence over the RFP and Contractor's proposal.

### **1. Description of Services**

Contractor will be required to assist the Port in implementing the Seawall Resiliency Project. The Contractor shall provide qualified personnel to assist the Port in three phases: Planning and Program Development (Phase 1), Preliminary Design and Environmental Compliance (Phase 2), and Support Services during Final Design and Construction (Phase 3). The following is a summary of tasks involved:

- Phase 1**
  - 1.01.00 Management and Coordination of Services, Phase 1
  - 1.02.00 Stakeholder Engagement, Phase 1
  - 1.03.01 Data Collection and Review
  - 1.03.02 Additional Investigations
  - 1.03.03 Existing Conditions Report
  - 1.04.01 Earthquake Risk Assessment
  - 1.04.02 Flood Risk Assessment and Adaptation Plan
  - 1.04.03 Utility Risk Assessment
  - 1.04.04 Transportation Risk Assessment
  - 1.04.05 Land Use Planning and Regulatory Assessment
  - 1.04.06 Urban Design Assessment
  - 1.04.07 Disaster Response and Recovery Assessment
  - 1.04.08 Environmental Conditions and Opportunities
  - 1.04.09 Economic Impact Assessment
  - 1.04.10 MHRA Report
  - 1.05.01 Design Criteria
  - 1.05.02 Needs, Risks, and Aspirations
  - 1.05.03 Alternative Formulation
  - 1.05.04 Alternative Comparison and Ranking
  - 1.05.05 Refine Design & Engineering of Highest Ranked Alternatives
  - 1.05.06 Final Evaluation, Selection and Preferred Program
  - 1.06.00 City Staff Training, Phase 1
  - 1.07.00 Seismic Peer Review Panel, Phase 1
- Phase 2**
  - 2.01.00 Management and Coordination of Services, Phase 2
  - 2.02.00 Stakeholder Engagement, Phase 2
  - 2.03.01 Design Basis Document (Initial Projects)

- 2.03.02 Detailed Investigations, Design Level (Initial Projects)
- 2.03.03 Preliminary Design, Engineering & Cost Est, General Plan (Initial Projects)
- 2.03.04 Preliminary Design, Engineering & Cost Est, 15% (Initial Projects)
- 2.03.05 Preliminary Design, Engineering & Cost Est, 35% (Initial Projects)
- 2.03.06 Design/Build Contract Packages (Initial Projects)
- 2.04.00 Pilot Projects
- 2.05.00 Emergency Projects
- 2.06.01 CEQA
- 2.06.02 NEPA
- 2.06.03 Permitting
- 2.07.00 City Staff Training, Phase 2
- 2.08.00 Seismic Peer Review Panel, Phase 2
- Phase 3** 3.01.00 Management and Coordination of Services, Phase 3
- 3.02.00 Stakeholder Management, Phase 3
- 3.03.00 Value Engineering
- 3.04.00 Independent Design Review

## 2. Task Orders

Performance of the service under this Agreement will be executed according to a task order process, and Contractor is required to provide adequate quality control processes and deliverables in conformance with the technical requirements of the task order. The Port Project Manager will initially identify tasks and request the contractor to propose a project scope, sub tasks, staffing plan, LBE utilization, schedule, deliverables, budget and costs to complete the task in accordance with Appendix B. All costs associated with the development of the scope of work shall be borne by Contractor. A final task order will be negotiated between the Port Project Manager and the Contractor and then submitted to the Bureau Manager for approval. However, the budget, if applicable, identified for tasks is an estimate, and the City reserves the right to modify the applicable budget allocated to any task as more specific information concerning the task order scope becomes available.

The task order request will be processed for Controller certification of funding, after which a *Notice to Proceed* will be issued. The Contractor is hereby notified that work cannot commence until the Contractor receives a written Notice to Proceed in accordance with the San Francisco Administrative Code. ***Any work performed without a Notice to Proceed will be at the Contractor's own commercial risk.*** The calculations of costs and methods of compensation for all task orders under this Agreement shall be in accordance with Appendix B.

These following tasks provide general guidance to the Contractor as to the anticipated scope of work which the Port reserves the right to modify or delete:

Services provided by the Contractor are intended to augment the City's workforce, through the provision of expertise in the development and management of this large-scale capital project; and, where needed,

through supplementary services to meet peak workload demands of the Seawall Resiliency Project. The Project Manager, or their designee, reserves the discretion and authority to affect the initiation, augmentation, alteration, or cessation of specific services and tasks provided through this contract. The estimates of work hours that are included in this scope are intended as a reference for the level of effort anticipated for each task.

## **Phase 1**

### **Task 1.01.00 – Management and Coordination of Services, Phase 1**

1.01.00.01 – Charter. Mobilize our team to initiate work upon notice to proceed, and to conduct a kick-off meeting with the Port's team to review roles, tasks, and milestones; as well as to establish lines of communication.

1.01.00.02 – Project Management Work Plan (PMWP). Develop a draft PMWP. The PMWP will provide the baseline for Project roles, responsibilities, and processes for managing and reporting safety, quality assurance/control (QA/QC), cost, schedule, risk, scope, document control, and communications. The PMWP will also define the Project Vision, Goals, Key Performance Indicators, and Targets and inform design criteria.

1.01.00.03 – Tools and Processes. Implement a web-based data management system and project dashboard for file management and an at-a-glance status of schedule, budget, performance metrics, and risk. Develop a cost-loaded work breakdown structure and detailed critical path milestone schedule. Work with the Port to ensure integration with existing tools and processes.

1.01.00.04 – Project Management. Provide daily management and control of budgets, costs, schedule, scope, and risks. Conduct progress meetings and workshops to report progress and confirm alignment with Port milestones and objectives.

#### ***Deliverables:***

Kick-off Meeting; PMWP (draft and final); QA/QC Plan; Risk Register; Progress Meetings and Workshops, including Presentations, Agendas, and Meeting Summaries; Web-based File sharing Site; Monthly Reports and Invoices.

#### ***Assumptions:***

- Internal project leadership team kick off meeting
- Prepare and coordinate project initiation (kick-off) meeting with the Port's team. Prepare agenda and send to meeting participants.
- Conduct Project Initiation (kick-off) meeting with the Port's team to Charter the Project, review roles, tasks, and milestones; as well as to establish lines of communication.
- Prepare meeting minutes, distribute and finalize.
- Five development meetings for preparation of a draft PMWP and submit to Port for comments with PMO team.
- Address Port's comments in PMWP.
- Submit final PMWP to Port.

- Prepare and coordinate PWMP discussion meeting with Executive team. Prepare agenda and send to meeting participants.
- Conduct meeting with the Port's Executive Steering Committee to review PMWP. Participants: RFP and C/A key/lead team members with Port Staff.
- Prepare meeting minutes, distribute and finalize.
- Complete due diligence on Port's existing tools. Meet with identified port staff (1 meeting)
- Develop tools and processes plan and discuss with Port to validate (1 meeting).
- Implement a web-based data management system and project dashboard for file management and at-a-glance status of schedule, budget, performance metrics, and risk.
- Establish Initial Baseline, Scope, Schedule, and Budget.
- Prepare a cost-loaded work breakdown structure and update critical path milestone schedule. Submit to Port for review and comments and finalize.
- Provide daily management and control of budgets, costs, schedule, scope, and risks.
- Continuous throughout project.
- Prepare monthly invoices.

#### **Task 1.02.00 – Stakeholder Engagement, Phase 1**

The Team will work closely with the Port Team to design a purpose-driven stakeholder engagement strategy that identifies relevant stakeholders, and drives education and endorsement at key decision points. We will execute the approved strategy to convey the Project's need, solicit ideas, and gain feedback on the Project.

##### 1.02.00.00 – Project Management for Task 2

###### ***Assumptions:***

- 15 month duration

###### ***Deliverables:***

- Monthly reports
- Weekly calls

Calls with technical teams

##### 1.02.00.01 – Charter

Conduct chartering with the Port's Public Relations Team to gain alignment on strategy goals and objectives.

###### ***Assumptions:***

- K&W to work with Civic Edge to prepare agenda
- K&W with support from Civic Edge to prepare chartering materials
- Attendees will include Public Relations Team, Port Staff, CH2M team.

***Deliverables:***

- Prepare Draft
- Chartering agenda and meeting
- Revise and Prepare Final Charter

1.02.00.02 – Stakeholder Outreach Survey.

Develop and review a list of stakeholders. Prepare a draft stakeholder survey. Perform an approved outreach survey. Summarize the findings and recommendations in a technical memorandum (TM) (draft and final) and PowerPoint presentation.

***Assumptions:***

- Survey is a combination of interviews, focus group-style meetings and electronic surveys.

***Deliverables:***

- List of stakeholders
- Draft Survey
- Meeting with Port to obtain survey approval
- Perform Survey
- Meetings with neighborhood groups for input
- Interviews (30 plus)
- Electronic survey
- Technical Memo (survey findings)
- Presentation

**Task 1.03.00 – Existing Conditions Review and Documentation**

1.03.01 – Data Collection and Review.

Assess the initial list of data and databases, and organize all relevant documents in a data repository. Develop a project “data dashboard” for easy access to data with secure user controls planning. Define phased data management goals that span predesign, design, construction, and operation and management.

1.03.02 – Additional Investigations.

Based on data gaps identified in 1.03.01, present the findings and recommend and secure approvals. Recommendations for additional site investigations will consider the value of new information to risk assessment and design development. Anticipated investigations include: geotechnical data collection, structural condition assessments (including abovegrade and underwater), and building data. Marine studies necessary to support permitting may also be identified at this phase. An allowance for additional investigations is included in our fee proposal.

### 1.03.03 – Existing Conditions Report.

Develop a comprehensive report detailing the existing condition to serve as the baseline for subsequent Phases. The report will provide information for subsequent detailed designs and include an initial asset inventory database (for example, building type, occupancy, criticality, condition, and other relevant information in a georeferenced format) for use in the multi-hazard risk assessment (MHRA) in Task 1.04. The report will link to previous studies, reports, and analysis through the data management system, and will include all past drawings in PDF or native files and all new drawings in AutoCAD.

#### ***Deliverables:***

Existing Data Inventory Report; Additional Investigations TM; Existing Conditions Report (draft and final); GIS Database.

#### ***Assumptions:***

- 1) Subtask 02
  - a) Level of Effort (LOE) includes oversight of additional investigations by others – no labor for oversight if investigations included in the cost.
  - b) LOE and/or cost of investigations themselves not included.
  - c) Marine and landside survey data investigation not included.
  - d) Underwater inspection diving services not included.
  - e) Design manual development not included.
  - f) Environmental investigation not included, such as soil sampling.
  - g) Utility investigation not included.
  - h) Assumed 1 (one) coordination/kickoff meeting.

### **Task 1.04.00 – Multi-hazard Risk Assessment.**

Our MHRA will quantify risks and opportunities in common units (dollars) to allow direct comparison and inform infrastructure risk reduction decisions in a broader context of constraints and priorities. The assessment will inform evaluation criteria and the risks, needs, and aspirations that will be the basis of Alternatives Development (Task 1.05) and may identify emergency projects (Task 2.05). The methodology identifies critical assets (inventoried in Task 1.03), pairs those assets with defined hazards and quantifies impacts to assets and codependent infrastructure, such as utilities, transportation, and disaster response and recovery. Impacts are standardized to dollars per year, allowing relative ranking of risk.

#### 1.04.01 – Earthquake Risk Assessment.

We will provide an assessment of earthquake vulnerability and structural risk that reduces uncertainty, results in the right level of design conservatism, and ensures hazards are not inadvertently underestimated. This assessment will serve as the basis for modeling earthquake hazards in our MHRA.

#### 1.04.01.01 – Gather and review existing earthquake vulnerability assessments

CH2M Team will gather and review available earthquake vulnerability assessment reports performed for the Port, and relevant published research, information, and data with the goal to assess whether the work performed to-date is adequate for the characterization of the seawall vulnerability or whether updates are warranted.

#### 1.04.01.02 – Determine data gaps and recommend further vulnerability assessment

CH2M Team will summarize data gaps and/or shortcomings from adopted analytical methods from reviewed reports. Assumptions and limitations in their simplified analytical methods will be documented and presented to the team. CH2M Team will summarize the limitations in existing vulnerability studies and propose to the Port for additional analyses, if necessary.

#### 1.04.01.03 – Complete additional vulnerability assessment (subject to Port approval)

Upon approval, CH2M Team will lead the effort for additional vulnerability assessment. At the planning stage, we anticipate the scope will involve:

- Development of acceleration response spectra at Franciscan formation (3 hazard levels, USGS 2008 source model, NGA WEST2 GMPEs, 1 representative location, and 1 representative shear wave velocity); Per instruction by CH2M we will not develop site-specific spectra per UCERF3 at this phase of the project.
- Development of 3 single-component horizontal motions spectrally matched to target response spectra;
- Development of idealized soil profiles and properties for subsequent evaluations (10 2-D cross sections);
- 1-D site response analyses (4 1-D profiles, total stress using Deepsoil);
- Screening level liquefaction assessment (GIS-based, 2 empirical correlations (NCEER, B&I 2014));
- Screening level slope stability (10 2-D cross sections, Pseudostatic analyses using PLAXIS);
- 2-D numerical model validation against case histories (1 case history, 1 cross section);
- Advanced 2-D numerical analyses for slope stability (3 2-D cross sections per screening level study using FLAC); and
- Development of input for SE analyses (soil springs and surface acceleration response spectra).

The analyses will be performed once. There will be no additional analyses or iterations.

#### 1.04.01.04 – Determine earthquake performance criteria

CH2M Team will work with the Port and design team to develop the earthquake performance criteria that is suitable for the POSF seawall structures and dikes. Current structures and future developments will be jointly considered.

#### 1.04.01.05 – Evaluate, assess, and summarize earthquake risk

When finalized, the analyses, discussions and recommendations will be documented in the draft and final reports. We assume that the final report will address one round of comments by the ultimate client (POSF)

***Deliverables:***

Earthquake Risk Assessment TM (draft and final).

***Assumptions:***

- We assume no ongoing support to the team after submitting the final report. In addition, we assume that there will be no iterations or need for re-analyses for works described above.
- Only earthquake hazards will be evaluated in this Task. Limited retrofit alternatives will be evaluated in Task 1.05.

**1.04.01.01 – Earthquake Performance Criteria.**

Quantify probabilistic earthquake hazards at selected locations along the entire seawall for various timeframes, and quantify probabilistic consequences in terms of fragilities. Determine earthquake performance criteria to define potential consequences to critical assets. Develop preliminary design criteria to govern earthquake design events, seismic analyses, performance evaluations, and retrofit designs of the seawall structures and associated facilities.

**1.04.01.02 – Basis of Design.**

Develop a Basis of Design in close coordination with the Port, stakeholders, and other hazard team members. Define performance criteria and acceptable risk depending on functionality, criticality, and overall impacts (for example, fully operational with minimum damage for critical facilities and repairable damage for noncritical facilities).

**1.04.01.03 – Likelihood and Consequence of Failure.**

Work with the Port to qualitatively rank likelihoods and consequences (high to low); develop mitigation alternatives; evaluate mitigated relative risk; and identify highest priorities.

***Deliverables:***

Earthquake Risk Assessment TM (draft and final).

**1.04.02 – Flood Risk Assessment and Adaptation Plan.**

Our work will result in the identification of flooding vulnerabilities and potential adaptation alternatives.

**1.04.02.01 – Joint Probability Analysis.**

Develop a joint probability analysis to define the potential for combined high tide and rainfall events. Conduct swell and wind wave modeling to assess inundation and overtopping associated with the combined events at each planning horizons and sea level rise scenarios for combined high tide and rainfall.

**1.04.02.02 – Flood Impact Analysis.**

Identify impacts from wave overtopping, including damage to buildings and infrastructure, street closures, reduced wave protection, and loss of pedestrian access.

**1.04.02.03 – Flooding Criteria.**



Develop criteria to define thresholds and tipping points for responding to potential flood risks based on the occurrence probability of the various impacts.

#### 1.04.02.04 – Flood Adaptation Alternatives.

Based on the above, develop range of flood protection options to address the identified flood risks. Develop probabilistic-based summary of potential flooding risk for each alternative and associated impacts due to still water inundation and wave overtopping.

#### ***Deliverables:***

TM Outline; Flood Risk Assessment and Adaptation Plan TM (draft and final)

#### ***Assumptions:***

- Joint probability analysis will involve developing a matrix of possible future extreme tide and hydrologic conditions and conducting joint probability analysis of coincident extreme tides and extreme rainfall events for selected points in the future (short, near, and long term) for sea level rise scenarios (low, medium, and high).
- Gather, review, synthesize, and summarize existing studies and data related to storm surge, tides, sea levels, and rainfall.
- Conduct only local wave modeling associated with select events to assess run-up and overtopping potentials.
- Develop annual exceedance probabilities for estimating future impacts.
- Perform a flood impact analysis through wave overtopping analysis, assessment of inundation extents and impacts, associated building/infrastructure damage, and hazard assessment modeling based on the sea level rise, storm surge, and rainfall scenarios developed.
- Develop flood criteria for choosing which coincident extreme tide and rainfall events will be considered.
- Review present sea level rise science to establish future extreme tidal predictions.
- Review future climate change scenarios and select three scenarios that represent low, medium, and high predictions.
- Use the annual exceedance probabilities and their potential impacts to define goals and criteria by which alternatives will be evaluated.
- Select the thresholds for response based on the impacts of greatest concern for the selected scenarios.
- Conduct two flood threat and design criteria workshops with the Port and City to aid in defining the events and scenarios (water levels, precipitation, wave conditions) that will be triggers or thresholds for action.
- For flood adaptation alternatives, consider rainfall and future interior drainage impacts in the alternatives.
- Conduct two flood hazard assessment workshops to screen and select preferred alternatives.

- No new sea level rise or surge modeling will be performed (review and use existing data to develop recommendations).
- No detailed modeling of existing City drainage system will be performed. Simplified drainage modeling and assessment of storm water drainage associated with flood adaption alternatives will be conducted.
- Select three flood adaption alternatives for additional assessment as part of the flood adaption alternatives task.
- One meeting to discuss team and client goals (define levels of flood risk and objectives).
- 4 workshops and 1 technical panel on hazard assessment validation (flood treat, design criteria, hazard assessment results) are assumed.

#### **1.04.03 – Utility Risk Assessment.**

We will assess earthquake and flooding hazard utility vulnerability.

##### 1.04.03.01 – At-Risk Utilities.

Using the asset inventory collected in Task 1.03 and the earthquake and flooding evaluations, update the Project GIS to define at-risk utilities for each hazard scenario. Develop asset groupings (geographic) to provide a higher-level discussion of impacts and begin process of identifying Project reaches.

##### 1.04.03.01 – Lifeline Council.

Coordinate with the Lifeline Council to evaluate impacts of hazards in light of criticality, redundancy, and system planning for electric, gas, water, sewer, and telecommunications infrastructure.

##### 1.04.03.03 – Risk Analysis.

Evaluate the likelihood and consequence of failure for each hazard scenario. Estimate direct and indirect impacts, and the costs of repair and replacement.

#### ***Deliverables:***

Utility Risk Assessment TM (draft and final).

#### ***Assumptions:***

- Coordinate with approximately 15 -20 private utility agencies and City departments/divisions including but not limited to PG&E, AT&T, Verizon, Comcast, Level 2, Zayo, XO, SFPUC WVE, SFPUC CDD, SF Port, SF Port utilities, SFPUC AWSS, SFPUC Power Enterprise, SFMTA Muni, SFMTA DPT, and SFMTA Sustainable Streets.
- Assume 10 – 12 meetings for each deliverable.

#### **1.04.04 – Transportation Risk Assessment.**

Assess transportation system vulnerability for earthquake and flooding hazards.

##### 1.04.03.01 – At-risk Transit Infrastructure.

Based on Task 1.03 and the earthquake and flooding evaluations, update the City's GIS to define at-risk assets for each scenario.

#### 1.04.03.01 – Transit Stakeholder Coordination.

Working with each transportation agency, determine criticality, useful life, operating costs, and system planning for water transportation services and the Embarcadero multimodal corridor.

#### 1.04.03.03 – Risk Analysis.

Evaluate the likelihood and consequence of failure for each hazard scenario. Estimate direct and indirect impacts, and the costs of repair and replacement.

#### ***Deliverables:***

TM Outline; Transportation Risk Assessment TM (draft and final).

#### ***Assumptions:***

- Work with SFMTA and DPW to define Roadways using their current ownership responsibilities and emerging asset management standards. Assets to be considered include the following:
  - a) Roadway and all related signals and systems
  - b) Bus yard (Kirkland)
  - c) Rail yard (Muni Metro East)
  - d) Bus right of way (dedicated lanes, bus zones, and shelters)
  - e) Surface rail assets (trackway, stations, and systems)
  - f) SFMTA rail underground (tunnels, tracks, stations, and systems)
  - g) BART (tunnels, tracks, stations, and systems)
  - h) Other transit-related assets with potential risk such as Hotel Vitale property (leased by SFMTA) and the Transbay Transit Center
- Coordinate with asset owners and seek initial clarification of assets related to their location, construction, and resiliency to threats.
- Conduct seven meetings half-day meetings with major asset owning agencies: SFMTA bus; SFMTA rail; DPW; WETA; Golden Gate Ferry Transit; BART; TBD.
- Interface with agencies after initial meetings to locate and qualify assets.
- Identify key assets with outstanding questions.
- Compile, refine, and electronically document assets.
- Submit requests for agencies to make an independent first-pass to classify assets in advanced of individual working meetings.
- Conduct seven full day meetings with major asset owning agencies to define and refine classifications.
- Compile and electronically update documentation of assets.
- Meet with major asset owning agencies to assess risk to assets.
- Major asset owning agencies to independently review the documented risk assessment for transportation assets.

- Compile, refine, and electronically update documentation of assets.

#### **1.04.05 – Land Use Planning and Regulatory Assessment.**

The Team will document current land uses in the Project area, as well as all applicable land use plans and policies, and will develop additional information to inform design criteria, risks, needs, and aspirations.

##### **1.04.05.01 – Existing Framework.**

Conduct a comprehensive review of existing land use planning and regulatory framework. Create maps to illustrate how various plans overlap the Project area, and develop matrices describing relevant policies, land use restrictions, and allowances. Frame land use constraints and identify opportunities consistent with Port goals and objectives.

##### **1.04.05.02 – Planning Agency Stakeholder Coordination.**

Attend working sessions with planning agency staff to define needs, goals, and aspirations. Community outreach is included in 1.04.06.

##### **1.04.05.03 – Land Use and Funding Nexus.**

Support the Port in your evaluation of development revenue considerations, advancing the work conducted under your Waterfront Land Use Plan update, and coordinated with alternatives development and economic impact analysis. Evaluate trade-offs and opportunities.

#### ***Deliverables:***

TM Outline; Land Use Planning Assessment TM (draft and final).

#### **1.04.06 – Urban Design Considerations and Assessment.**

Our team will document the existing conditions with a keen eye towards highlighting value, priorities, and aspirations for the future. Community and stakeholder engagement will be vital to analyzing how the waterfront is working as public space and which reaches have the most potential to be high-value public space for the Port and the community.

##### **1.04.06.01 – Review Existing Plans, Policies, Studies, and Regulations.**

Our initial review has identified over 40 of these types of documents, from area and public realm plans to transit studies to design guidelines. Develop a thorough inventory of applicable documents, followed by a summary of alignment, conflicts, and potential gaps.

##### **1.04.06.02 – Historical Resources.**

Review historical resource goals, constraints, trade-offs, and opportunities. Develop a historical preservation strategy.

##### **1.04.06.03 – Public Life Survey.**

Present a summary of Gehl Architects' approach to performing the renowned Public Life Public Space survey. With the Port's endorsement, Gehl will conduct the survey, using volunteer stakeholders.

##### **1.04.06.04 – Urban Design Community Charrettes.**

Conduct internal City and public charrettes to gain input on needs and aspirations. The form of charrettes will be informed by stakeholder surveys and Port preferences, with timing aligned to needs of bond outreach and an alternatives formulation.

***Deliverables:***

Public Life Survey; TM Outline; Urban Design Considerations and Assessment TM (draft and final).

**1.04.07 – Disaster Response and Recovery Assessment.**

Assess the vulnerability of City and Port lifeline and disaster response assets and plans.

1.04.07.01 – Existing Framework.

Work with Port’s homeland security staff, Water Emergency Transportation Authority, and City Office of Emergency Services, to assess existing City-wide disaster response plans, vulnerability assessments, and future needs.

• 1.04.07.02 – Disaster Response and Recovery Risk Criteria.

Develop criteria for the application to the alternatives formulation, specific to disaster response plans and lifeline facilities.

***Deliverables:***

Disaster Response and Recovery Assessment TM (draft and final).

***Assumptions:***

- Review and comment on City and Port disaster response plans as well as policies, procedures, staff training, and exercising.
- Review existing plans against the current emergency response planning state-of-the-practice generally as well as specifically against the standards of the National Incident Management System (NIMS), the National Response Framework (NRF) for securing resources, the State of California Standardized Emergency Management System (SEMS), and the Homeland Security Exercise and Evaluation Program (HSEEP).
- Additional plan reviews will consist of the City and County’s Emergency Management Agency Emergency Operation Plan (EOP), and the Area Maritime Security Plan (AMSP), coordinating with the United States Coast Guard (USCG) Captain of the Port (COTP) and US Customs and Border Protection if needed.
- Conduct risk assessment of the Port’s physical assets that are specific to disaster response and recovery with respect to both the earthquake and flood hazards. These are assumed to be physical assets such as emergency shelters apart from the seawall assets and, therefore, not already captured in the earthquake and flood risk assessments.
- This task does NOT include any on-site disaster response activities such as mobilization, demobilization, staff deployment, Incident Command System (ICS) position staffing, training, or any related services.
- Meet with Port’s homeland security staff to identify and gain an overview understanding of Port-specific disaster response plans and related documents including policies, procedures, staff training plans, and disaster exercise plans or Multi-Year Training and Exercise Plans (MYTEPS). This meeting will also cover the relationships among the Port and the other

agencies involved in disaster response and the intersections among their disaster response plans and programs.

- Meet with Water Emergency Transportation Authority and City Office of Emergency Services to identify and gain an overview understanding of respective disaster response plans and related documents as they would pertain to the Port.
- Summarize content of each plan, relationships among involved agencies with respect to Port disaster response, and identify any gaps with respect to the state-of-the-practice regarding disaster response as well as general conformance with NIMS and SEMS principles as applicable.
- Prepare draft technical memorandum summarizing findings, conclusions, and recommendations and provide to Port for review.
- Meet with Port to discuss their review comments and incorporation into a final technical memorandum.
- Prepare and submit final technical memorandum.
- Assume three plan review meetings with two CH2M-Arcadis team participants, review of up to eight response plans, one technical memorandum review meeting with two CH2M-Arcadis team participants.
- Evaluating the risks associated with lifeline facilities with respect to the earthquake and flooding hazards used in the previous tasks.
- Meet with Port staff to identify, discuss, and obtain documentation regarding existing lifeline facilities (e.g., shelter-in-place facilities) and/or other physical assets necessary for disaster response but not already addressed in the earthquake and flood risk assessment. This may be conducted in accordance with FEMA ESF-6.
- Review documents that describe the lifeline facilities and/or other assets identified including mutual aid agreements to gain a fuller understanding of their intended uses, capacities, capabilities, locations, and relationships to the disaster response plans reviewed in the previous tasks.
- Develop a list of critical assets for these lifeline facilities and assets.
- Document the earthquake and flood hazard threats to be paired with these assets.
- Hold workshop with the Port team to confirm the critical hazard-asset pairs to be carried forward in the analysis and to jointly begin to develop the consequences to these assets associated with the earthquake and flood events.
- Perform risk analysis and provide results for Port review and validation.
- Meet with the Port team to review and solicit input on the results and discuss possible ways to improve the lifeline facilities/assets.
- Incorporate Port comments and finalize risk analysis.
- Prepare draft technical memorandum documenting results and provide to the Port for review and comment.

- Incorporate Port review comments and finalize the technical memorandum.
- Submit final technical memorandum documenting the results.
- Assume one documentation review meeting with two CH2M-Arcadis team participants; review of up to six documents regarding the disaster response assets; one hazard-asset pair and consequence development Port workshop with two CH2M-Arcadis team participants; one risk analysis Port workshop with two CH2M-Arcadis team participants.

#### **1.04.08 – Environmental Conditions and Opportunities.**

Develop a detailed understanding of design related environmental conditions, critical constraints, and opportunities.

##### **1.04.08.01 – Review Existing Plans, Policies, Studies, and Regulations.**

Using variable information key environmental conditions, including historic structures, biological habitat, spills, groundwater, water quality, traffic constraints, public access areas, and critical utilities to support environmental review and permitting.

##### **1.04.08.02 – Environment/Regulatory Early Start.**

To meet the Port's schedule, we propose beginning the environmental assessment and permitting effort in Phase 1. Develop a permitting roadmap, assemble a CEQA/NEPA strategy, and identify data gaps and initiate additional studies.

#### ***Deliverables:***

CEQA/NEPA Strategy Memorandum; Environmental Conditions and Opportunities TM (draft and final); Draft and Final Permitting Plan.

1.04.08:01 – Review Existing Plans, Policies, Studies, and Regulations. Using variable information key environmental conditions, including historic structures, biological habitat, water and sediment quality, hazardous material, groundwater, traffic constraints, public access areas, visual corridors and critical utilities to support environmental review and permitting.

#### **ICF Work Products:**

Environmental Conditions and Opportunities Report

Summary of environmental conditions for all resource areas

WRA Work products: Existing Biological Conditions and Opportunities section (included in overall Conditions and Opportunities Report)

Existing mapped resources and field review of existing conditions

Aquatic resources and permitting constraints review

GIS mapping of existing biological and permitting conditions, including agency jurisdictional limits

Identify areas of potential sea wall habitat enhancements and other habitat enhancement opportunities

Description of major regulatory policies and practices expected to be drivers of the permitting process and have the potential to influence design/construction

WRA attendance at up to four team meetings (4-6 hours each, in San Francisco) to support alternatives selection process

Assumes two draft and one final version of biological section of the Conditions and Opportunities Report.

#### 1.04.08.02 – Environment/Regulatory Early Start.

To meet the Port's schedule, we propose beginning the environmental assessment and permitting effort in Phase 1. Develop a permitting roadmap, assemble a CEQA/NEPA strategy, and identify data gaps and initiate additional studies.

##### CEQA/NEPA strategy (ICF):

Identify environmental clearance approach to project, program, pilot projects and emergency projects.

Consult with Corps, Port, and Environmental Planning to develop and confirm strategy

Established critical path schedule for environmental clearance.

##### Permitting Roadmap (WRA)

Identify anticipated permits needed and underlying assuming major in-water work will be required

Identify relationships between permits

Identify statutory permitting time frames and estimate permit processing duration

Describe timing for permit preparation and submittal based on time frames identified

Identify data needed to complete permit applications and information gaps that may exist or are anticipated to be requested by agencies

WRA attendance at two team meetings, up to 4 hours each in San Francisco

#### 1.04.09 – Economic Impact Assessment.

Incorporate the economic work that the Port and City have done to quantify cost of inaction using USACE economic standards.

##### 1.04.09.01 – Existing Framework.

Evaluate the Port's existing database of real estate; critical landowner/real estate; and local demographic, economic, and market trends. Evaluate the Cost of Inaction methodology and recommend refinements for enhanced risk/benefit capture.

##### 1.04.09.02 – Economic Impact Assessment Methodology.

Develop Project-wide standards to ensure alignment with USACE cost-benefit guidelines. Work with the Port's finance team to ensure consistency with prior analyses and City financing. With input from the Finance Working Group, further develop concepts related to Infrastructure Finance Districts and risk avoidance benefit capture.

##### 1.04.09.03 – Risk and Benefit Capture.

Coordinate with other 1.04 subtasks to model economic impacts and benefits of infrastructure risk-reduction scenarios.



***Deliverables:***

Economic Impact Assessment TM (draft and final).

***Assumptions:***

- Assumes involvement in one round of engagement, including preparation with team, support of materials.
- Assumes regular remote attendance to MHRA team calls, etc. and six in person meetings (3 people during the MHRA Task development).

**1.04.10 – Multi-Hazard Risk Assessment Report.**

Incorporate the economic work that the Port and City have done to quantify cost of inunction with USACE economic standards. The CH2M-Arcadis Team will also prepare an MHRA Report. This will be a compendium report, integrating work performed for each individual risk assessment. CH2M will present the preliminary and final findings in milestone workshop.

***Deliverables:***

MHRA Report (draft and final); Workshop.

***Assumptions:***

- Consolidate the outputs of the individual risk assessments and applicable supporting efforts described in Tasks 1.04.01 through Task 1.04.09 to enable comparison of assets and hazards
- Individual risk assessments will address all consequences, vulnerabilities, and threats; no other risk component included in this task.
- Compile assessment results, work with the Port and stakeholders to review and analyze the results, and prepare the draft and final Multi-Hazard Risk Assessment reports.
- The following table summarizes the expected outputs from each of the individual risk assessments and supporting efforts required by the Port's RFP and described by the tasks above. This shows how each will contribute to the consolidated MHRA to enable comparisons of risk among the wide variety of hazard-asset pairs, or to later tasks as applicable.
- The pages following the table provide the specific activities to be conducted during this task.
- Provide MHRA expertise, support, and continuity throughout the component risk assessments to ensure consistency of approach, assumptions, tools, and deliverables.
- Summarize risk assessment results in a single risk summary spreadsheet compiling the results of the individual risk assessments. Meet with Port to confirm the exact format based on the outcome of the previous tasks
- Present hazard-asset pairs; their consequence, vulnerability, and hazard likelihood values; and the resulting annual risk values in both matrix/tabular and graphical form.
- Conduct two half-day workshops with Port and stakeholders to present intermediate and final results of the risk summary; ensure the Port and stakeholders have a full and shared understanding of the results to provide a solid basis for the development of risk reduction measures, cost and risk reduction benefit estimations, and ancillary costs and benefits in subsequent tasks.

- Incorporate the workshop feedback from the Port and stakeholders into the MHRA process and risk summary tool.
- Prepare outline of final MHRA report and incorporate the Port's feedback; finalize the outline to serve as a foundation for the final report.
- Prepare and submit draft and final MHRA report, soliciting and incorporating one set of Port and/or stakeholder feedback at each step.
- Ten trips, five days per trip for modeling and analysis review.

#### **Task 1.05.00 - Alternatives Development, Analysis, and Preferred Program**

Develop design criteria, define the framework for alternatives development, formulate alternatives, evaluate alternatives against evaluation criteria, and select a masterplan vision and preferred program. At the outset of this task, CH2M will work with the Port to confirm methodology, select preferred tools and outputs, and confirm sequencing of City internal and external engagement.

##### 1.05.01 – Design Criteria.

Establish project design criteria that will drive technical solutions and alternatives development. Planning level design criteria will be performance-based, depending on the assets that require protection.

##### 1.05.01.01 – Outline.

Develop an outline to gain alignment on content and process.

##### 1.05.01.02 – Civil/Structural Criteria.

Develop civil criteria, based on SFDPW and SFPUC standards, to be updated as needed. Confirm marine structures performance criteria refer to ASCE 61, Seismic Design of Piers and Wharves. Confirm buildings criteria refer to ASCE 41, Seismic Rehabilitation of Existing Buildings, which have been accepted by BCDC for rehabilitation of marine structures and buildings.

##### 1.05.01.03 – Flooding Criteria.

Develop criteria that consider potential scenarios, such as the 100-year and 500-year storm tides, and that address expected design life, sea level rise projections, acceptable flooding, FEMA funding guidelines, and impacts on the character of the waterfront, land use, urban design, and the environment.

##### 1.05.01.03 – Urban Design Criteria.

Develop planning-level urban design criteria reflecting stakeholder input and City plans and guidelines.

##### 1.05.01.04 – Environmental Design Criteria.

Develop planning-level design criteria for environmental mitigation and enhancement.

##### 1.05.01.05 – Socio-Economic Criteria.

Develop planning-level design criteria that reflect community values.

***Deliverables:***

Design Criteria Reports (draft and final); Workshops.

***Assumptions:***

- Workshop will be limited to one workshop with client staff, no public participation.
- Criteria development will identify applicable current standards and codes, and determine their application to the proposed projects.
- Marine/structural criteria will have to consider and incorporate both building and marine structure criteria, i.e. the criteria and applicable codes for an occupied/public building over water with a marine pile foundation.

**1.05.02 – Risks, Needs, and Aspirations.**

The work performed in 1.04 will be synthesized into the Risks, Needs, and Aspirations Report. This critical document will detail risks of no action under various scenarios and demonstrate risk reduction priorities. Aspirations will articulate the vision and define opportunities for waterfront public realm improvements and resilience improvements master plan. This Report will provide the foundational data for the subsequent Alternatives Formulation. To aid in public outreach, a Summary Fact Sheet will be developed.

***Deliverables:***

Risks, Needs, and Aspirations Report (draft and final); Public Fact Sheet (draft and final).

***Assumptions:***

- No additional investigation nor risk development is part of this cost and effort.
- No workshops are part of this effort.
- This effort consists of developing a report and fact sheet based on already available information from task 1.04.
- No action risk scenarios will be developed.

**1.05.03 – Alternatives Formulation.**

Through a series of charrettes, the integrated design team will develop a range of alternatives, which will build upon the design criteria formalized in earlier tasks and will respond to the Project risks, needs, and aspirations. Alternatives will include waterfront-wide concepts and reach-specific concepts. These will be combined to present a range of alternatives. Alternatives will be presented to Port staff in working sessions for further refinement. Additional input from City family stakeholders will be sought with the intent of selecting 4 to 6 viable alternatives for comparison and ranking.

***Deliverables:***

Alternatives Report (draft and final).

***Assumptions:***

- No additional investigation nor risk development is part of this effort.

- Participation in two charrettes is part of this effort, charrette planning and conduct by separate vendor procured by the Port.
- 2 meetings/workshops with client/city stakeholders will be held as part of this effort.
- Concept alternative development limited to a baseline concept with an alternative description and 3 sheets per alternative.
- Concepts limited to 1-2% development under this subtask.
- Initial alternatives limited to 3 waterfront wide and 8 reach specific concepts.
- Charrette and workshop participation by CH team will require travel for some attendees, cost not included in this estimate.

#### **1.05.04 – Alternatives Comparison and Ranking.**

Through this step, we will compare and rank the 5 to 7 viable alternatives.

##### **1.05.04.01 – Finalize Evaluation Criteria.**

Work closely with the Port to confirm evaluation criteria reflect the Port's values and objectives. Assign specific metrics to each criterion so alternatives can be objectively measured and compared.

##### **1.05.04.02 – Evaluate Alternatives Concepts.**

Assess each alternative concept against evaluation criteria such as constructability, fundability, construction impacts, public impacts and benefits, order of magnitude cost, and attainment of Projectwide goals.

##### **1.05.04.03 – Formulate Programmatic Alternatives.**

Formulate 3 to 4 programmatic alternatives incorporating high ranking waterfrontwide concepts and reach-specific concepts. Define the required level of detail necessary for Program formulation.

##### **1.05.04.04 – Compare and Rank.**

Compare alternatives against each other, as compared to evaluation criteria. This working-session-based approach will provide the Port and other City stakeholders with the opportunity to discuss the nuances of the performance of each alternative relative to the criteria. Endorse 2 to 3 alternatives for further refinement and public input. The Port will provide direction on Commission engagement prior to community workshops.

##### **1.05.04.05 – Community Workshop.**

Present the 2 to 3 highest ranking programmatic alternatives for public discussion, evaluation, and input. The goal of the workshop(s) is to further refine each alternative and gain broad-based community support for a master plan vision.

#### ***Assumptions:***

- No additional investigation nor risk development is part of this effort.
- Participation in one public workshop will be part of this effort.
- No further concept development from subtask 1.05.04 will be done under this subtask.

- Workshop participation by CH team will require travel for some attendees, cost not included in this estimate.
- CADD, technical editing and document publication effort under Dominica's LOE.

#### **1.05.05 – Refine Design and Engineering of the Highest ranked Alternative.**

Advance the design of the preferred alternative to a level of detail sufficient to develop cost estimates, construction sequencing, develop schedule, and initiate environmental process. At the end of this process, we will have a list of prioritized capital projects, each with baseline scope, budget, and targeted schedule.

##### ***Assumptions:***

- No participation in public nor client workshops will be part of this effort.
- Concept development limited to 3-5% development.
- Concept alternative development limited to a baseline concept narrative and 20 sheets per alternative.
- The Alternative to be developed will consist of one waterfront-wide concept and up to three reach-specific concepts within the water-front wide concept.
- Cost estimate and schedule development based on level of concept development.
- A cost schedule risk analysis is not part of this cost.

#### **1.05.06 – Final Evaluation, Selection, and Preferred Program.**

Once a decision has been made as to what will be built where, the Program must be developed to optimize funding and schedule, while minimizing risk and impacts. Opportunities for schedule compression through accelerated financing can significantly reduce escalation costs and meet your resiliency goals sooner. Using Tailored Analytics and Comparative Techniques (TACT), CH2M's economic modeling platform, we will evaluate alternative sequences, project acceleration scenarios, and funding stacks, to optimize the preferred Program. Through collaborative scenario development, we will apply the TACT tool to evaluate cost benefit ratios, and evaluate the inter-related variables of schedule and funding, to identify an optimized Program.

##### ***Deliverables:***

Preferred Program and Master Plan (draft and final).

##### ***Assumptions:***

- No participation in public nor client workshops will be part of this effort.
- This effort will consist of execution planning and sequencing already developed concepts.

#### **Task 1.06.00 - City Staff Training, Phase 1**

CH2M Team will prepare and participate (2) half day training sessions for Port and City engineering and technical staff on topics related to the Project. The content will include advanced earthquake analysis of soils and structures, tools for soil structure interaction, predicting and generating site specific earthquake response spectra, and marine construction techniques.

#### Task 1.07.00 - Seismic Peer Review Panel, Phase 1

An Independent Seismic Peer Review Panel shall be established at the start of the Seawall Project with the mission to review the approach to the seismic risk hazard risk and basis of design during planning, preliminary engineering, and final design. The Panel shall consist of recognized experts in the following specialties:

1. Seismic Hazard Assessment and Ground Motion Characterization,
2. Dynamic Soil Response and Soil Liquefaction / Cyclic Degradation,
3. Seismic Performance of Earth Structures, Earth Retention Systems, and Deep Foundations,
4. Analysis of Dynamic Soil-Foundation-Structure Interaction of Port Structures,
5. Seismic Performance of Port Waterfront Structures,
6. Mitigation of Seismic Hazards by Geotechnical and Structural Methods (e.g., ground treatment, structural strengthening, isolation, and/or retrofit),

The Seismic Peer Review Panel shall consist of a sufficient number of noted experts to provide the necessary breadth of insight for technical review and seismic hazard mitigation risks, yet small enough to remain nimble, responsive, and well-coordinated.

The Peer Review Panel shall be independent, meet regularly (a minimum of once per month during the planning phase, and quarterly thereafter), and provide advice and support throughout the Project. Meetings shall be planned in advance and documented.

The following individuals are proposed for the Seismic Peer Review panel:

#### **Seismic Peer Review Chairman**

Shahriar Vahdani, Ph.D., P.E., G.E. – Geotechnical Consultants, Inc.

#### **Seismic Peer Review Vice-Chairman**

Stephen Dickenson, Ph.D., P.E., D. PE - New Albion Geotechnical, Inc.

#### **Seismic Peer Review Members At-Large**

Jonathan Bray, Ph.D., P.E., NAE , U.C. Berkeley – Geotechnical Consultants, Inc.

Robert Harn, P.E., S.E. - Berger-Abam

#### **Seismic Peer Review Liaison with the Project Design Team**

Don Anderson, Ph.D., P.E. - CH2M

Nason McCullough, Ph.D., P.E. - CH2M

Seismic Peer Review scope shall include a review and assessment of the PDT approach for the following:

- Project Specific Seismic Design Criteria
- Project Specific Seismic Hazard

Should include a review and assessment of any or all of the following:

- Analytical methodology

- Independent Quality Assurance
- Design approach and critical details
- Retrofit strategy
- Other items as defined by the Port

Seismic Peer Reviews are intended to provide value by:

- Assisting Project Design Team in addressing complex technical issues.
- Reviewing the PDT's approach on engineering decision-making process and provide advice.
- Reviewing PDT's project cost saving alternatives, methods, and criteria to avoid an increased factor of safety for unknowns and provide advice and recommendations.
- Providing input on assessment and design criteria and its effects on the project.
- Providing advice on analytical methodology.
- Demonstrating to stakeholders that seismic design methods are appropriate for and consistent with the current state of the practice.

General Outline of the Seismic Peer Review Process:

The Seismic Peer Reviewer or Panel reviews the PDT teams approach and assessment of the seismic design criteria, seismic hazard, and other issues as required to meet the seismic performance goals and provides advice. The PDT shall evaluate how the Seismic Peer Review recommendations of the PDT's approach and assessment could potentially be incorporated into the project, and their project impacts. The PDT shall prepare project documentation regarding implementation of Seismic Peer Review recommendations and present them to the Seismic Peer Panel for consideration and concurrence.

If concurrence cannot be reached between the PDT and the Seismic Peer Panel, final resolution shall be made through the Chief Harbor Engineer.

***Assumptions:***

- 3 face to face meetings
- Preparation for Kick-off Meeting – Review approach for seismic risk assessment outlined in 1.04.01.01-1.04.01.03.
  - a) Assume 16 hours each panel member
- Kick- off face to face meeting with Panel
- Full day discussion on the PDT approach as outlined in Scope of Work for items 1.04.01.01-1.04.01.03, suggestions and advice
  - a) Prepare meeting notes on approach and revisions for PDT and Port's consideration
  - b) Assume 20 hours each panel member; 28 hours for chairman
- Two other face to face meetings

- Full day meetings to discuss key deliverables including Basis of Design, refine design/engineering alternatives analysis/mitigation measures, draft reports
  - a) 16 hours each member for preparation and review
- Prepare meeting notes on approach and revisions for PDT and Port's consideration
  - a) Assume 20 hours each panel member; 28 hours for chairman
- Monthly meetings (13) – Teleconference
- Chairman prep time – 1 hour
- Meeting/review time – 2 hours all members (Don Anderson every other meeting)
- Chairman summary of meeting – 1 hour
- Independent Quality Assurance Review
  - a) Peer Review members 5 individuals 40 hours each
  - b) Liaison members 2 individuals 20 hours each

Assume no on-going support to the team after submitting final report. Assume no iterations or need for re-analysis for work described above.

## **Phase 2**

### **Task 2.01.00 – Management and Coordination of Services, Phase 2**

Refine the organizational structure to reflect the design-focused Phase 2 tasks and to support the advancement of the CEQA/NEPA process and permitting. Update the PMWP to reflect Phase 2 activities. Continue focus on QA/QC throughout Phase 2.

#### ***Deliverables:***

Kick-off Meeting; Phase 2 Project Management Work Plan (draft and final).

### **Task 2.02.00 – Stakeholder Engagement, Phase 2**

The CH2M-Arcadis Team will adapt our stakeholder Engagement Strategy in Phase 2 to ensure alignment with design, engineering, and permitting tasks.

#### **2.02.00.00 – Project Management for Task 2, Phase 2**

#### ***Assumptions:***

- 20 month duration

#### ***Deliverables:***

- Monthly reports
- Weekly calls

Calls with technical teams

#### **2.02.00.03 – Stakeholder Engagement Strategy Update**

#### ***Assumptions:***

- Check-in survey with key stakeholders (a subset of participants in the initial survey) to evaluate engagement to date



- Record renewed recommendations on engagement strategy in an updated strategy document and present to Staff and/or Committee/s.

***Deliverables:***

- Survey
  - a) Interviews (15)
  - b) Focus group-style meetings
  - c) Electronic survey
  - d) Prepare survey findings (TM)
- Draft updated strategy
- Meetings to review/endorse
  - a) PR team
  - b) Port staff
  - c) Technical team leads
- Final updated strategy

2.02.00.04 – Community Stakeholder Engagement.

***Assumptions:***

- 8 workshops
  - a) Phase 2 workshops support the environmental process. 5 workshops assumed in support of CEQA/NEPA and 3 workshops available to expand on engagement around specific milestones, or to support non-Environmental Review-related topics.
- Only providing technical content for website
  - a) Assumes website design and hosting by Port as part of their existing website.
- On-the-waterfront interactive engagement
  - a) In collaboration with other team members
  - b) Assumes a decrease in activity relative to Phase 1.
- EJ-specific outreach activities (meetings, information tables, etc.)
  - a) Collaborate with RDJ on EJ activities

***Deliverables:***

- Meeting agendas
- Meeting summaries
- Meeting materials and presentations
- Meeting facilitation
- Technical input for website content
- Technical input for newsletter

- On-the-waterfront engagement content and materials (in collaboration with other team members)
- EJ specific outreach materials

**Task 2.03.00 - Initial Projects, Preliminary Design**

The design leads who led the work during the alternatives evaluation phase will continue to advance the Project through design. Preliminary design milestones include 5%, 15%, and 35%, with the preparation of bid packages for alternative delivery included at the 35% milestone.

2.03.01 – Design Basis Document (DBD).

Develop a Program-level DBD to provide overarching design guidance. Conduct workshops to develop a DBD through an iterative process. Conduct bi-weekly working sessions to pose questions on standards and preferences, update code lists, and gain endorsement from key stakeholders.

**Overall Deliverables for Task 2.03.00:**

- DBD Outline; DBD (draft and final), 5%, 15%, and 35% design packages (including drawings, technical specifications, front end specifications)

**Overall Assumptions for Task 2.03.00:**

- 3 initial projects, construction value \$654.5 million.
- Architectural and Landscape architectural to develop only concept level design (5% design).
- One meeting with Port for each design phase, total of 3 meetings, 2 hours long each, attended by: Project Manager, DM (design manager), Geotechnical lead, Lead Architect.

2.03.02 – Detailed Investigations, Design Level.

Develop a prioritized list of additional site investigations required to complete the concept and preliminary design. Review the scope and estimated cost of investigations with Port staff to select priority studies for execution. Develop and execute a site investigation plan, prepare summary reports, and incorporate data into the GIS database. Present the results of investigations to Port staff in working meeting settings.

**Deliverables:**

- List of Site Investigations; Site Investigation Reports (draft and final).

**Assumptions:**

- Costs of detailed inspections is not included, only hours to identify what inspections are needed.

2.03.03 – Preliminary Design, Engineering & Cost Estimating, General Plan.

The General Plan level of development will advance the design of the initial improvements to 3 to 5% level of design.

2.03.03.01 – Design Development.

Complete preliminary design and engineering for initial improvements. Generate a building information modelling model and selected drawings to 3% to 5%. Conduct bi-weekly working sessions to pose design questions and alternative solutions, and to seek endorsement to enable

design progression. Develop additional conceptual renderings with landscape architects and architects. Prepare calculations and models.

#### 2.03.03.02 – Technical Memorandum.

Prepare a TM documenting design assumptions, interdependencies, and issues to address in next design phase; review this with Port team.

#### 2.03.03.03 – Environmental/Regulatory Coordination.

Coordinate with the NEPA/CEQA/ permitting team to identify potential pre-mitigation design considerations, construction constraints, and other design considerations.

#### 2.03.03.04 – Cost Estimate.

Develop a Class 5 schedule and cost estimate for initial projects.

#### 2.03.03.05 – Design Review Workshop.

Conduct a General Plan Workshop to review and confirm design decisions.

#### ***Deliverables:***

General Plan Design, Engineering, and Cost Estimate Package.

#### 2.03.04 – Preliminary Design, Engineering & Cost Estimating, 15% Design.

This task will progress preliminary design to 15%. Concept development will support the development of a Class 3 cost estimate, schedule, and contingency budget. Activities will be as in 2.03.03, but also will include development of initial specification list and Cost and Schedule Risk Analysis (CSRA) based on the USACE process.

#### ***Deliverables:***

15% Plan Design, Engineering, and Cost Estimate Package; Initial Specification List; Milestone Workshop.

#### 2.03.05 – Preliminary Design, Engineering & Cost Estimating, 35% Design.

Based on input from the 15% design review, we will advance design to 35%. This will involve developing additional detail, specifically in areas of high risk or areas of construction where defining the scope is key to the permitting process. For example, in-water scope will be expedited to support CEQA/NEPA. Port input on decisions that may affect usage, design life, and long-term operations and maintenance costs will be sought. Design elements and concepts will be frozen at the completion of the 35% design package. We will perform a constructability review, develop a Class 2 schedule and cost estimate, and update risk information and the CSRA. We will be especially focused on “Continuity of Operations” during design and construction phase by leveraging Best Practices and Lessons Learned, to ensure minimal impact to the Port’s operational excellence and reputation.

#### ***Deliverables:***

35% Plan Design, Engineering, and Cost Estimate Package; Draft Specifications.

#### 2.03.06 – Design/Build Contract Packages.

This task includes the development of a procurement strategy that aligns with Port objectives and design/build contract packages for alternative delivery procurement of initial projects, based on our experience supporting SFPUC, San Mateo, and other clients. We will consider interactions.

between operations continuity, community impacts, schedule impacts, construction sequencing, project logistics, schedule impact, budget savings, project criticality, risk transfer, and private sector involvement.

***Deliverables:***

Three Design/Build Contract Packages; Support to Port Staff in Discussions with City Attorney on Bidding Strategy and Bidding Documents.

**Task 2.04.00 - Pilot Projects**

Pilot projects will be developed to evaluate the site investigation techniques and preferred retrofit options prior to a broader implementation. Findings will be used to refine the geotechnical and structural models to better determine the effectiveness of the retrofit options. Fugro will work with the design team to develop a pilot-project workplan describing objectives and benefits, data to be collected, and means and methods. Anticipated pilot projects will involve:

- Evaluation of the effectiveness of various techniques of assessing existing seawalls and associated infrastructure. Use techniques such as ground LiDAR, single- and multi-beam bathymetry surveys, geophysical surveys, and small- and large-diameter coring to delineate the locations, geometry and composition of structures. Coring can be conducted to confirm composition and quality of dikes, seawalls and piles, and pile-integrity testing can be used to determine pile length and;
- Development of preferred mitigation measures. Evaluate the feasibility and cost-effectiveness of mitigation measures, such as structural upgrades, cement deep soil mixing, jet grouting, stone columns, and/or ground compaction. For example, cement deep soil mixing has many significant advantages over jet grouting to stabilize the seawall including costs and the ability to work offshore and avoid onshore disruptions. The key issues will involve the cost of predrilling through the seawall (large diameter coring and backfilling with sand to facilitate rapid deep mixing) and containment of spoils to mitigate environmental concerns. A pilot project can be developed to assess the level of effort required and costs for these key activities.

***Deliverables:***

Recommended Pilot Projects TM; Drawings and Specifications; Field Reports; Draft and Final Pilot Project Reports.

***Assumptions:***

- Up to two pilot projects will be implemented.
- Contractor costs to implement the pilot projects not included.
- The duration of the field aspects of each pilot project is anticipated to be no more than two weeks.

**Environmental Review and Permitting for Pilot Projects**

The environmental team will provide environmental clearance (NEPA/CEQA) and permitting for identified pilot projects. Emphasis will be on the use of streamlined environmental review approaches (categorical exemption/categorical exclusions) and streamlined permits for investigatory activities (such as Nationwide Permit 6) where appropriate. As the pilot projects have not yet been identified or developed, the specific level of effort included in the cost

estimate is a placeholder and assumed only limited permitting effort. As pilot projects are identified, the environmental team will develop and environmental strategy for the most efficient environmental clearance and regulatory permitting in consultation with the Port and the Regulatory Agency Working Group.

***Deliverables:***

Environmental clearance memo(s), NEPA and CEQA documentation, regulatory permit applications (USACE, SFRWQCB, SF BCDC, CDFW, consultation with SHPO for NHPA Section 106 and with NMFS/USFWS for ESA Section 7, NMFS IHA).

***Assumptions:***

- One draft and one revised draft permit application package for one pilot project.
- Use of nationwide USACE permits and streamlined other permits.
- Use of categorical exemption under CEQA and Categorical Exclusion under NEPA.
- Permit application fees are not included in cost.
- Cost does not include implementation of mitigation or avoidance/minimization measures.

**Task 2.05.00 – Emergency Projects**

We will perform the permitting and engineering necessary to bid and construct projects that may be required under emergency circumstances. To expedite design, we have identified our California PE team to ensure an immediate and effective design delivery. Emergency projects are CEQA exempt; however, a NEPA categorical exclusion may be necessary. USACE also has issued Regional General Permit allowing for emergency actions.

***Deliverables:***

Emergency Project Design Deliverables.

***Assumptions:***

- Construction costs \$50 million.
- 3 projects.
- 3 meetings of each project with 5 teams members, 4 hours each meeting.
- Assumed design, bid, build and minimal construction assistance (submittal and RFI review only)
- No construction management cost included.

**Environmental Review and Permitting for Emergency Projects**

Emergency projects are exempt from CEQA. A categorical exclusion may however be necessary under NEPA. The San Francisco District of the Corps of Engineers has also issued Regional General Permit that allows for emergency actions. There are other provisions for emergencies in regards to other state permits, for example, from the SF RWQCB. The environmental team will develop an emergency project environmental clearance/permitting plan and consult with the regulatory agency working group to ensure procedures are acceptable. This plan can then be employed in the event of emergency conditions.

***Deliverables:***

Environmental clearance memo, NEPA documentation, regulatory permit applications (USACE, USCG, SF RWQCB, SF BCDC, CDFW, and consultation with SHPO for NHPA Section 106 and with NMFS/USFWS for ESA Section 7, NMFS IHA).

***Assumptions:***

- One draft and one revised draft permit application package emergency projects
- Permit application fees are not included in budget estimate
- Does not include implementation of mitigation or avoidance/minimization measures

**Task 2.06.00 - Environmental Review and Permitting**

As outlined in the approach, the environmental team will commence with background studies early in the planning phase to support design and to get a head start on the environmental process. The team will also complete an early identification of potential impacts and mitigation strategies in order to incorporate as much mitigation into project design and to further robust and acceptable environmental outcomes. We will integrate the concerns of the public, stakeholders, and agencies as derived from the outreach process into our environmental studies and analyses.

As outlined in the approach, the environmental team will commence with background studies early in the planning phase to support design and to get a head start on the environmental process. The team will also complete an early identification of potential impacts and mitigation strategies in order to incorporate as much mitigation into project design and to further robust and acceptable environmental outcomes. We will integrate the concerns of the public, stakeholders, and agencies as derived from the outreach process into our environmental studies and analyses.

**2.06.01 – CEQA and 2.06.02 – NEPA.**

Prepare and issue appropriate scoping documents for both Program and Project-level environmental documents, and hold scoping meetings. Provide early identification of potential impacts and mitigation strategies to incorporate mitigation into project design and further assure robust and acceptable environmental outcomes. Combined Program CEQA/NEPA (likely an EIR/EIS) and an initial improvements CEQA/NEPA document (possibly an EIR/EA or EIR/EIS). Work closely with the Port, USACE, and Environmental Planning and stakeholders to clearly define project objectives and develop an appropriate range of alternatives.

***Deliverables:***

- Notice of Intent (NEPA)/Notice of Preparation (CEQA)
- Scoping Report
- Technical Reports
  - a) Air Quality Technical Report
  - b) Biological Technical Report
  - c) Biological Assessment
  - d) Cultural Resources Inventory Report (prepared in Phase 1)
  - e) Hazards and Hazardous Materials
  - f) Noise Technical Memorandum

- g) Transportation Report
- Project EIR/EIS and Program EIR/EIS
  - a) Administrative Draft #1 EIR/EIS
  - b) Administrative Draft #2 EIR/EIS
  - c) Screen Check Draft EIR/EIS
  - d) Notice of Availability and Federal Noticing
  - e) Public Draft EIR/EIS
  - f) Administrative Final #1 EIR/EIS
  - g) Administrative Final #2 EIR/EIS
  - h) Screen Check Final EIR/EIS
  - i) Notice of Availability and Federal Noticing
  - j) Final EIR/EIS
  - k) Notice of Determination (CEQA)
  - l) Mitigation Monitoring and Reporting Plan (CEQA)
  - m) Record of Decision (NEPA)

***Assumptions:***

- Combined EIR/EIS documents for project and program.
- Sediment quality sampling not assumed to be required for EIR/EIS, therefore cost not included.
- Sampling of benthic invertebrate communities, may be required for the Biological Assessment, cost not included.

2.06.02 – See 2.06.01

2.06.03 – Permitting

As outlined in the approach, the permitting effort begins early in the planning phase with the establishment and functioning of the Regulatory Agency Working Group, the identification of critical agency impact issues, and the development of mitigation approaches. Through understanding the needs of each agency in detail, compliance strategies can be developed and agreed to in advance of the actual permitting process. Permit applications would be developed during the CEQA/NEPA process to avoid potential delays in permit issuance after completion of environmental review.

The scope of work includes the following tasks:

- Draft permit applications for the U.S. Army Corps of Engineers (Individual Permit, unless Corps does internal permitting and project sponsor), San Francisco Regional Water Quality Control Board, San Francisco Bay Conservation and Development Commission, and California Department of Fish and Wildlife (Incidental Take Permit)
- Incidental Harassment Authorization from National Marine Fisheries Service

- Attendance at RAWG meetings
- Attendance at up to five Design Review Board and Engineering Criteria Review Board meetings, or combination meetings with the Waterfront Design Advisory Committee

***Deliverables:***

Permit Applications; Continued updates to Phase 1 Permitting Roadmap;

***Assumptions:***

- One draft and one revised draft permit application package for the project
- Permit application fees are not included in budget estimate
- Does not include implementation of mitigation or avoidance/minimization measures
- Assumes up to three formal revisions of the permitting roadmap based on RAWG meetings
- State Lands and Public Trust consistency determination/property interest is not included in this budget estimate

***Assumptions:***

- Completion of permit applications during CEQA/NEPA process. If sufficient design is not available to support permit applications, then this effort would shift to Phase 3.
- Does not include long term funding necessary to manage and maintain mitigation and habitat enhancements
- Assumes a maximum of five mitigation and habitat enhancement sites
- Does not include mitigation construction drawings
- Assumes integrated habitat enhancement construction drawings, cost not included.

**Task 2.07.00 - City Staff Training, Phase 2**

Provide additional training to City and Port staff on relevant topics, as in Phase 1. The topics will be based on the upcoming decisions and work in Phase 2, such as site investigation techniques, use of GIS-based tool, and construction and management of geotechnical retrofits.

***Assumptions:***

Training sessions are limited to 3 (three) half day training sessions.

**Task 2.08.00 - Seismic Peer Review Panel, Phase 2**

Continuation of scope as appropriate in Phase 2.

***Assumptions:***

- Quarterly meetings (9) via teleconference
- Chairman prep time – 1 hour
- Meeting/Review time – 2 hours all members
- Chairman summary of meeting – 1 hour



### **Phase 3**

Support Services during Final Design/Engineering & Construction, Initial Project(s)

This scope includes providing expert technical and environmental services during final design and construction as other consultants and contractors complete final design, permitting, construction, and mitigation and monitoring plans. Others will also provide construction management services.

#### **Task 3.01.00 - Consultant Team Management, Final Design & Construction**

Services shall be similar to Task 1.01.00 but modified to reflect Phase 3 contract scope of services.

#### **Task 3.02.00 - Stakeholder Engagement, Support**

The Port and other consultants will take the lead in stakeholder engagement during this phase. The selected Consultant will provide supporting materials and attend meetings only to support consultant work scope during this Phase.

#### **Task 3.03.00 - Value Engineering**

Develop and lead 1-day value engineering (VE) workshops for all project(s) including preparation of all necessary materials, documenting workshop discussions, and preparation of results and outcomes. Facilities will be provided by the Port. VE workshops shall follow USACE guidance. For budgeting, assume (3) projects.

#### **Task 3.04.00 - Independent Design Review**

Lead an independent Design Review process for each final design/construction project to be executed by others. This design review shall include input from independent technical experts in each of the technical/engineering/environmental fields required for each project, including but not limited to: civil engineering, coastal engineering, hydraulic engineering, geotechnical engineering, structural engineering, environmental impacts, constructability, and cost estimating. Review shall take place at each formal step in design (assume Design Basis, revised 35% Design, 65% Design, 95% Design, 100% Design) and include review of technical reports, calculations, plans, specifications, cost estimates, and operations & maintenance plans. For budgeting, assume three projects.

Assumptions: Assumed 10 projects, 5 Independent Review Meetings per a project, 4 hours each meeting. Meeting attendees will be the Project Manager only. Technical experts will be supplied for the Independent review consultant (by others). CH2M team to lead meetings only.

#### **Task 3.05.00 – Permit Assistance – NOT INCLUDED**

#### **Allowances:**

For Phase 1 we had assumed 3 carefully targeted boreholes with some in-situ vane tests and advanced laboratory testing and 15 CPTs to characterize the young Bay Mud landside of the waterfront.

For Phase 2 we have assumed the Port should allow for the following to be procured separately:

Onshore (\$400k) - 15 boreholes and 60 CPTs as fill in for datagaps to characterize both liquefiable fills and Young Bay Muds landside of the waterfront. In addition we have included 10 boreholes to characterize landside seawall conditions and geometry; and

Overwater (1,000k) – geophysical survey to ascertain seawall geometry (\$150k); 12 overwater boreholes with in-situ vane testing (\$600k) and 10 overwater boreholes to characterize bay side seawall conditions and geometry (\$250k).

Laboratory testing (some of it advanced in nature) is included in the allowances for borehole drilling.

**Allowances**

Phase 1	\$100,000		100,000
Phase 2		\$1,400,000	1,400,000
<b>Total</b>	<b>\$100,000</b>	<b>\$1,400,000</b>	<b>\$1,500,000</b>

## Appendix B Calculation of Charges

In accordance with Section 3.3.1 of this Agreement, the total compensation payable under this Agreement to CH2M HILL Engineers, Inc., (referred to also as "Contractor") is detailed below, inclusive of all costs and meetings required to complete work specified in Appendix A. In no event shall the total costs under this Agreement exceed the amount provided in Section 3 of this Agreement.

**Payment Requests and Insurance Documentation** should be sent to:  
Port of San Francisco - Contracts  
Pier 1  
San Francisco, CA 94111

### **Payments for Deliverables or Tasks**

Total compensation for the Contractor's scope of services under this Agreement will not exceed \$36,349,740, on a lump sum basis for the Scope of Services set forth in Appendix A of this Agreement, inclusive of all labor, materials, equipment, and Contractor's incidental expenses, subject to the assumptions, limitations and exclusions described. This not-to-exceed fee shall not be increased without written authorization by the Port of San Francisco.

Contractor will not be entitled to reimbursement for reimbursement of travel expenses or other costs incurred in performing the services set forth in Appendix A such as mileage, costs for Contractor's meals, accommodations, long distance and cellular phone charges, postage, vehicle rental, etc., without prior written approval of the Port.

Payments will be made by the Port to Contractor within 30 days after the Port has received Contractor's payment request in accordance with Article 3 of this Agreement, provided that:

- 1) The Port has accepted as satisfactory, in the Port's sole and absolute discretion, the services rendered by the Contractor to the Port in accordance with this Agreement;
- 2) A written status report has been provided to the Port by Contractor as part of the Contractor's payment request documenting, to the extent practicable, the Contractor's completion of tasks (stated as a percentage) identified in **schedule Appendix B-1 (attached hereto)**; and
- 3) Insurance documentation is current in accordance with Article 5 of the Agreement.

Prior to the City's issuance of payment, each status report shall be signed by the Port's Project Manager indicating his/her agreement with the Contractor's description of completion of tasks identified in the status report. To the extent practicable, the Contractor shall submit monthly invoices reflecting the percentage of completion of those tasks identified in attached schedule Appendix B-1.

## Appendix B-1

Task	Task Name	Total Hours	Total Price
<b>Phase 1</b>	1.01.00	Management and Coordination of Services, Phase 1	10,020 \$ 2,307,635
	1.02.00	Stakeholder Engagement, Phase 1	3,186 \$ 548,308
	1.03.01	Data Collection and Review	1,795 \$ 343,786
	1.03.02	Additional Investigations	940 \$ 244,205
	1.03.03	Existing Conditions Report	642 \$ 156,906
	1.04.01	Earthquake Risk Assessment	3,692 \$ 719,683
	1.04.02	Flood Risk Assessment and Adaptation Plan	3,144 \$ 587,903
	1.04.03	Utility Risk Assessment	1,370 \$ 210,852
	1.04.04	Transportation Risk Assessment	388 \$ 66,542
	1.04.05	Land Use Planning and Regulatory Assessment	840 \$ 208,421
	1.04.06	Urban Design Assessment	1,799 \$ 373,364
	1.04.07	Disaster Response and Recovery Assessment	756 \$ 193,476
	1.04.08	Environmental Conditions and Opportunities	2,858 \$ 433,022
	1.04.09	Economic Impact Assessment	1,040 \$ 263,038
	1.04.10	MHRA Report	3,598 \$ 901,407
	1.05.01	Design Criteria	1,102 \$ 276,911
	1.05.02	Needs, Risks, and Aspirations	768 \$ 188,852
	1.05.03	Alternative Formulation	2,450 \$ 616,599
	1.05.04	Alternative Comparison and Ranking	2,018 \$ 485,892
	1.05.05	Refine Design & Engineering of Highest Ranked Alternatives	1,482 \$ 377,219
1.05.06	Final Evaluation, Selection and Preferred Program	1,588 \$ 435,925	
1.06.00	City Staff Training, Phase 1	200 \$ 35,460	
1.07.00	Seismic Peer Review Panel, Phase 1	950 \$ 264,017	
<b>Subtotal Phase 1</b>		<b>46,626</b>	<b>\$ 10,239,424</b>
<b>Phase 2</b>	2.01.00	Management and Coordination of Services, Phase 2	14,867 \$ 3,429,455
	2.02.00	Stakeholder Engagement, Phase 2	4,110 \$ 700,414
	2.03.01	Design Basis Document (Initial Projects)	377 \$ 86,049
	2.03.02	Detailed Investigations, Design Level (Initial Projects)	6,116 \$ 1,140,997
	2.03.03	Preliminary Design, Engineering & Cost Est, General Plan (Initial Projects)	6,860 \$ 1,373,706
	2.03.04	Preliminary Design, Engineering & Cost Est, 15% (Initial Projects)	3,505 \$ 640,929
	2.03.05	Preliminary Design, Engineering & Cost Est, 35% (Initial Projects)	2,600 \$ 511,262
	2.03.06	Design/Build Contract Packages (Initial Projects)	1,880 \$ 345,366
	2.04.00	Pilot Projects	3,396 \$ 604,939
	2.05.00	Emergency Projects	20,384 \$ 4,396,914
	2.06.01	CEQA	14,616 \$ 2,136,042
	2.06.02	NEPA	14,208 \$ 2,094,653
	2.06.03	Permitting	6,504 \$ 956,295
	2.07.00	City Staff Training, Phase 2	300 \$ 53,190
2.08.00	Seismic Peer Review Panel, Phase 2	126 \$ 34,944	
<b>Subtotal Phase 2</b>		<b>99,849</b>	<b>\$ 18,505,154</b>
<b>Phase 3</b>	3.01.00	Management and Coordination of Services, Phase 3	31,980 \$ 7,072,754
	3.02.00	Stakeholder Management, Phase 3	715 \$ 161,440
	3.03.00	Value Engineering	1,008 \$ 215,049
	3.04.00	Independent Design Review	760 \$ 155,920
<b>Subtotal Phase 3</b>		<b>34,463</b>	<b>\$ 7,605,162</b>
<b>Grand Total</b>		<b>180,938</b>	<b>\$ 36,349,740</b>

**Appendix C  
Hourly Rate Schedule**

<b>Company</b>	<b>Name</b>	<b>Position</b>	<b>Hourly Rate</b>
A G S Inc	Khamanehpour, Bahram	Principal Geotechnical Engineer	253.61
A G S Inc	Litle, Kenneth	Principal Civil Engineer	253.61
A G S Inc	Tsao, James	Principal Structural Engineer	215.71
Arcadis	Appelbaum, Stu	USACE Feasibility Analysis	265.33
Arcadis	Atkinson, John	SME - Resiliency Flood Hazard	201.49
Arcadis	Baummy, Walter*	USACE Feasibility Analysis	261.90
Arcadis	Bosch, Lauren	Economic Assessment	84.68
Arcadis	Devick, Chris*	Key Technical Lead - Coastal Engineering	156.99
Arcadis	Dircke, Piet*	Technical Advisory - Coastal Resiliency	288.12
Arcadis	Fernandez, Edward	Flood/Coastal Resiliency Planning	146.88
Arcadis	Foster, Carly	Flood/Coastal Resiliency Planning	200.28
Arcadis	Fricke, Macy	Flood/Coastal Resiliency Planning	98.41
Arcadis	Fulks, David	Senior Civil Engineer	203.06
Arcadis	Gravenmier, Josh	Emergency Response and Recovery	246.34
Arcadis	Manguno, Rich	Economic Analysis	240.10
Arcadis	Marrone, Joe	Coastal Modeling/Engineering	277.04
Arcadis	Ohrt, Andrew	MHRA	164.58
Arcadis	Pomales, Melissa*	Key Technical Lead - Project Controls	280.00
Arcadis	Project Coordinator (Arcadis)	Project Coordinator (Arcadis)	114.84
Arcadis	Roberts, Hugh	Hydrodynamic Modeling	241.06
Arcadis	Roth, Lawrence	Geotechnical Engineering/Risk Analysis	271.57
Arcadis	Staff Professional (Arcadis)	Staff Professional (Arcadis)	215.61
Arcadis	Staphorsius, John	Civil Engineering	200.08
Arcadis	Stoddard, Ryan	Civil Engineering	197.52
Arcadis	Stirm, Paul*	Key Lead - Multi Hazard Analysis and Delivery Lead	300.00
Arcadis	Thurson, Kelli	Resiliency Planning	104.33
Arcadis	Tschirky, Paul	Coastal Engineering	233.38
Arcadis	Welch, Wayne	Civil Engineering	300.00
Arcadis	Westerhoff, Edgar	Resiliency Planning	226.40
Arcadis	Wijsman, Peter*	Global Resiliency Expert	287.48

Company	Name	Position	Hourly Rate
Civic Edge Consulting	Dulvka, Annie	Project Assistant	160.50
Civic Edge Consulting	Lauterborn, Peter	Project Manager	160.50
Civic Edge Consulting	Sunshine, Lizbet	Project Director	225.16
BAYCAT	Baycat	Baycat	185.00
Berger-Abam	Harn, Robert	Seismic Peer Review Members At-Large	290.00
C H S Consulting Group	Kluter, Andrew	Senior Transportation Planner	153.88
C H S Consulting Group	Liberman, William	Transit Planner	290.00
C H S Consulting Group	Shao, Chi-Hsin	Traffic Engineering Principal	290.00
Carollo Engineers, Inc	Cruz, Emilio*	Carollo PIC/Technical Advisor	290.00
Carollo Engineers, Inc	Dadik, Mike	Structural/Resiliency	239.35
Carollo Engineers, Inc	Deslauriers, Sarah	Sustainability/Climate Change	167.03
Carollo Engineers, Inc	Harold, Eric	CSOs/Collection System	261.18
Carollo Engineers, Inc	Karam, Walid	Ongoing Project Integration	290.00
Carollo Engineers, Inc	Prabhakar, Pavitra	Ongoing Project Integration	200.35
Carollo Engineers, Inc	Pyle, Richard	Alternative Delivery Evaluation	290.00
Carollo Engineers, Inc	Reisinger, Dan	Seawall/CSOs	138.78
Carollo Engineers, Inc	Warriner, Michael	Construction Management	290.00
CH2M	Aldrich, Jeff	Marine Structural and Assessments and Design	279.32
CH2M	Anderson, Don	Seismic Peer Review	290.00
CH2M	Anderson, Todd	Multi-Hazard Analysis	234.82
CH2M	Barash, Andrew	Engineering	246.46
CH2M	Bassetti, Luce	Coastal Modeling/Engineering	188.82
CH2M	Benson, Chris	Transportation Engineering	263.11
CH2M	Bhalerao, Camille	Seismic Analysis	184.83
CH2M	Bloomberg, Loren	Transportation	290.00
CH2M	Browning, Steve	USACE Civil Works	290.00
CH2M	Bundy, Summer*	Stakeholder Engagement	263.53
CH2M	Burkhart, Michelle	Alternate Delivery	245.92
CH2M	Coates, Erin	Civil	191.72
CH2M	Cumming Meyer, Loretta	Socioeconomics/NEPA/CEQA	272.71
CH2M	Das, Tapash	Climate Change/Sea Level Rise	202.57
CH2M	Dinos, George	Underwater Inspection	152.35
CH2M	Elledge, Lon*	QA/QC	290.00

Company	Name	Position	Hourly Rate
CH2M	Englesmith, Jaason	Sustainable Asset Management and Funding	290.00
CH2M	Fassardi, Claudio	Coastal Modeling/Engineering	290.00
CH2M	Fuller, Brady	Drainage	237.69
CH2M	Gist, Forrest	Multi-Hazard Analysis	290.00
CH2M	Goldstick, Jonathan	QA/QC	290.00
CH2M	Granzow, Edward	Transportation Planning	290.00
CH2M	Harnish, Laura	Environmental Assessment and Permitting	290.00
CH2M	Hatchett, Steve	Economic Analysis	290.00
CH2M	Hayes, Jack	Cost Estimating	244.70
CH2M	Heuston, Leo	Transportation Engineering	290.00
CH2M	Highstreet, Allan	USACE Feasibility Analysis	290.00
CH2M	Hosley, Lynne	Permitting/Biology	290.00
CH2M	Hsu, Wilfred	Drainage	258.20
CH2M	Hulett, Kristen	Building Design	242.60
CH2M	Jaworski, Mark	Living Shorelines	247.80
CH2M	Jeter, Drew	Program Management	290.00
CH2M	Johnson, Paul	Value Engineering	251.02
CH2M	Jones, Stacey*	Project Manager	300.00
CH2M	Kadiyala, Raja	Data Management	290.00
CH2M	Kapoi, Christina	Other Facility Structures	138.25
CH2M	Kealy, Mary Jo	Economic Analysis	279.95
CH2M	King, Patrick*	Global Executive Sponsor	290.00
CH2M	Kingery, Don	Coastal Modeling/Engineering	227.29
CH2M	Lai, Andrew	Underwater Inspection	189.33
CH2M	Matichich, Michael	Financing/Funding	277.50
CH2M	McAmis, Michael Steve	Civil	179.41
CH2M	McCullough, Nason*	Seismic Peer Review	239.76
CH2M	Mejia, Jasmin	NEPA/CEQA	143.42
CH2M	Mendoza, Juan	Marine Structural and Assessments and Design	212.01
CH2M	Miranda, Julio	Building Design	278.04
CH2M	Mogray, John	Underwater Inspection	167.48
CH2M	Munavar, Armin	Climate Change/Sea Level Rise	290.00
CH2M	O'Hara, Ginny	60-Day Start Up	290.00
CH2M	O'Neil, Sean	Coastal Modeling	290.00
CH2M	Onodera, Maki	Marine Structural and Assessments and Design	258.77
CH2M	Owen, John Brinley	Transportation Planning	290.00
CH2M	Paparis, Bill	Marine Structures	290.00

<b>Company</b>	<b>Name</b>	<b>Position</b>	<b>Hourly Rate</b>
CH2M	Pontee, Nigel	Living Shorelines	154.17
CH2M	Proctor, Lauren	Transportation Engineering	161.06
CH2M	Project Coordinator (CH2M)	Project Coordinator (CH2M)	114.84
CH2M	Riden, Kirk	Asset Management	290.00
CH2M	Roberts, Kelly	Health and Safety	261.64
CH2M	Rosidi, Dario	Geology	290.00
CH2M	Schmitz, Barbara	Project Controls	290.00
CH2M	Schulte, Robert*	Engineering	290.00
CH2M	Speaks, Joe	Transportation Planning	257.43
CH2M	Stasiak, Dominica	Engineering	235.01
CH2M	Strosnider, Megan	Scheduling	196.50
CH2M	Sztern, Shailee	Civil	169.07
CH2M	Winslow, Kyle	Hydrology/Water Quality	263.11
CMG Landscape Architecture	Conger, Kevin*	Director	275.46
CMG Landscape Architecture	Conrad, Pamela	Project Landscape Architect	175.30
CMG Landscape Architecture	Guillard, Chris	Principal Designer	230.38
CMG Landscape Architecture	Moss, Willett	Principal Designer	230.38
CMG Landscape Architecture	Simon, Cathy*	Urban Design and Planning	275.46
CMG Landscape Architecture	Staff Professional (CMG)	Staff Professional (CMG)	140.00
FUGRO	Chen, Weiyu	Earthquake Vulnerability Assessment	222.70
FUGRO	Dean, Cornelia	Site Exploration and Characterization	179.77
FUGRO	Fernandez, Alfredo	Seismic Hazard Assessment	171.03
FUGRO	Herlache, Andy	Geotechnical Retrofit Solutions	290.00
FUGRO	Project Professional (Fugro)	Project Professional (Fugro)	141.44
FUGRO	Senior Professional (Fugro)	Senior Professional (Fugro)	212.16
FUGRO	Staff Professional (Fugro)	Staff Professional (Fugro)	123.76
FUGRO	Travasarou, Thaleia*	Lead Geotechnical Engineer	290.00
FUGRO	Ugalde, Jose	Earthquake Vulnerability Assessment	169.09
FUGRO	Wood, Ray	Site Exploration and Characterization	290.00



<b>Company</b>	<b>Name</b>	<b>Position</b>	<b>Hourly Rate</b>
GEHL Architects	Bela, John	Public Life Research & Community Engagement	290.00
GEHL Architects	Merker, Blaine	Public Life Research & Community Engagement	290.00
Geotechnical Consultants Inc	Agnew, Dustin	Staff Engineer	134.56
Geotechnical Consultants Inc	Bray, Jonathan	Seismic Peer Review Members At-Large	290.00
Geotechnical Consultants Inc	Khatri, Kavin	Staff Engineer	117.28
Geotechnical Consultants Inc	Neelakantan, Neel	Principal/Geotechnical Engineer	257.26
Geotechnical Consultants Inc	Patterson, Aurie	Senior Geologist	135.75
Geotechnical Consultants Inc	Peterson, Mark	Senior Engineer	257.26
Geotechnical Consultants Inc	Sastry Jayavani	Project Assistant	109.35
Geotechnical Consultants Inc	Seibold, Joe	Senior Geotechnical Engineer	192.40
Geotechnical Consultants Inc	Telson, Tanya	Project Assistant	63.64
Geotechnical Consultants Inc	Thurber, James	Lead Geologist	207.08
Geotechnical Consultants Inc	Vahdani, Shahriar	Seismic Specialist	270.80
Geotechnical Consultants Inc	Van Hoff, Deron	Senior Geotechnical Engineer	205.08
Hollins Consulting Inc	Berry, Margaret	Program Controls	251.99
Hollins Consulting Inc	Cooper, Derrick	Utility/Interagency Coordination	174.45
Hollins Consulting Inc	Futnani, Kali	Utility/Interagency Coordination	139.32
Hollins Consulting Inc	Hollins, Guy*	Utility/Interagency Coordination	221.70
Hollins Consulting Inc	McCrimmon, Catherine	Utility/Interagency Coordination	151.44
HR&A Advisors, Inc.	Barthakur, Amitabh	Partner in Charge	290.00
HR&A Advisors, Inc.	Jang, Brittany	Analyst	165.00
HR&A Advisors, Inc.	Moss, Olivia	Project Manager	290.00
HR&A Advisors, Inc.	Project Professional (HR&A)	Project Professional (HR&A)	145.00
HR&A Advisors, Inc.	Sand, Pamela	Director	275.00
HR&A Advisors, Inc.	Silvern, Paul	Senior Advisor	290.00
HR&A Advisors, Inc.	Torres Springer, Jamie	Senior Advisor	290.00

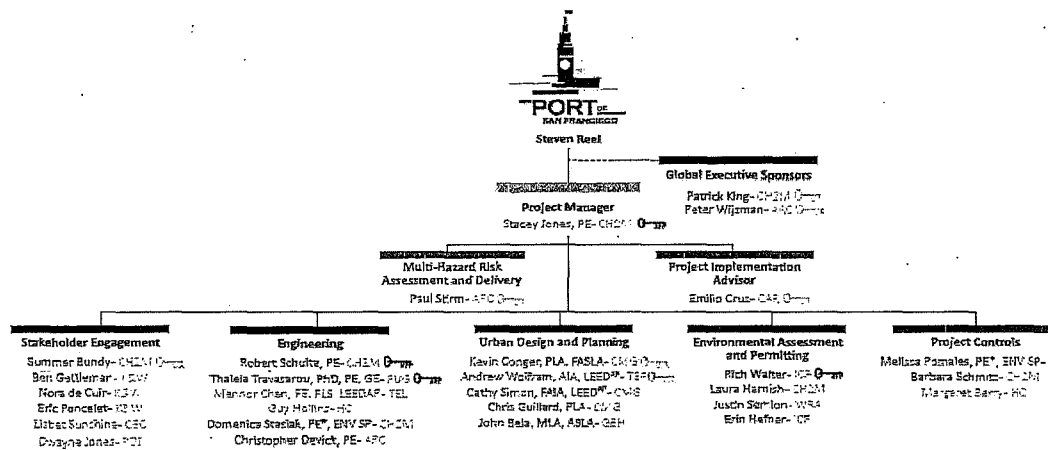
<b>Company</b>	<b>Name</b>	<b>Position</b>	<b>Hourly Rate</b>
ICF Jones & Stokes, Inc.	AQ / Noise Analyst (ICF)	AQ / Noise Analyst (ICF)	96.62
ICF Jones & Stokes, Inc.	Archaeologist (ICF)	Archaeologist (ICF)	98.37
ICF Jones & Stokes, Inc.	Beckstrom, Chad	Port Environ Compliance Sr. Advisor	255.80
ICF Jones & Stokes, Inc.	Clendenin, Gary	Geo and Hazmat	197.74
ICF Jones & Stokes, Inc.	Document Production (ICF)	Document Production (ICF)	133.84
ICF Jones & Stokes, Inc.	Efner, Erin	CEQA Task Lead	211.43
ICF Jones & Stokes, Inc.	Elder, Tait	Archeology	139.47
ICF Jones & Stokes, Inc.	Elliott, Chris	Corps Environ Compliance Sr. Advisor	264.07
ICF Jones & Stokes, Inc.	Envtl Planner (ICF)	Envtl Planner (ICF)	144.24
ICF Jones & Stokes, Inc.	GIS Analyst (ICF)	GIS Analyst (ICF)	114.37
ICF Jones & Stokes, Inc.	Hatcher, Shannon	Air Quality/GHG	186.39
ICF Jones & Stokes, Inc.	Historian (ICF)	Historian (ICF)	124.77
ICF Jones & Stokes, Inc.	Huber, Anne	Hydrology/Water Quality	138.35
ICF Jones & Stokes, Inc.	Lassell, Susan	Cultural (built) Resources	209.36
ICF Jones & Stokes, Inc.	Mitchell, Bill	Bio	208.02
ICF Jones & Stokes, Inc.	Mozumder, Kailash	Bio	125.13
ICF Jones & Stokes, Inc.	Permitting Support (ICF)	Permitting Support (ICF)	111.85
ICF Jones & Stokes, Inc.	Senior Advisor (ICF)	Senior Advisor (ICF)	255.80
ICF Jones & Stokes, Inc.	Senior Noise Analyst (ICF)	Senior Noise Analyst (ICF)	237.60
ICF Jones & Stokes, Inc.	Senior Technical Specialist (ICF)	Senior Technical Specialist (ICF)	197.74
ICF Jones & Stokes, Inc.	Stock, Jen	Aesthetics/Visual Quality	147.09
ICF Jones & Stokes, Inc.	Trisal, Shilpa	Enviro. Justice/Socioeconomic	183.63
ICF Jones & Stokes, Inc.	Walter, Rich*	Lead Environmental Engineer	255.41
Kearns & West	Associate (Kearns & West)	Associate (Kearns & West)	113.00
Kearns & West	Cross, Ellen	Vice President	270.00
Kearns & West	De Cuir, Nora	Director	171.60
Kearns & West	Gettleman, Ben	Senior Director	187.51
Kearns & West	Poncelete, Eric	Principal	270.00
Kearns & West	Project Coordinator (Kearns & West)	Project Coordinator (Kearns & West)	97.69
Kearns & West	Rugani, Kelsey	Senior Associate	112.51
Keyster Marston Associates	Kern, Debbie	Economic & Fiscal Analysis	252.64

Company	Name	Position	Hourly Rate
RDJ Enterprises LLC	Dilger, Rosemary	Public Relations	90.44
RDJ Enterprises LLC	Hopkins, Vivian Ann	Meeting Facilitation Community Engagement	108.42
RDJ Enterprises LLC	Jones, Rudolph Dwayne	LBE Coordination	154.12
Saylor Consulting Group	Ritchie, Ed	Senior Infrastructure Estimator	222.87
Saylor Consulting Group	Saylor, Brad	Principal Estimator	222.87
Sedway Consulting Inc	Herman, Amy	Sr Project Manager	280.00
Sedway Consulting Inc	Sedway, Lynn	Principal	290.00
Sedway Consulting Inc	Smitheram, Mary	Sr Project Manager	280.00
Simpson, Gumpertz & Heger	Bruin, William M.	Structural Engineer	290.00
Simpson, Gumpertz & Heger	Iversen, Rune	Marine Engineer	217.48
Simpson, Gumpertz & Heger	Johnson, Gayle	Structural Engineer	290.00
Simpson, Gumpertz & Heger	Lewis, Aaron	Structural Engineer	290.00
Simpson, Gumpertz & Heger	Moore, Kevin S.	Structural Engineer	290.00
Square One Productions	Carroll, Nichola	Production Artist	121.34
Square One Productions	Lin, Angela	Project Manager	174.09
Structus Inc	Chang, Fu-Lien (Henry)	Project Manager	290.00
Structus Inc	Chappell, Don	QA/QC Manager	227.24
Structus Inc	Surjana, Burhan	Project Engineer	140.95
Structus Inc	Yu, Peter	Structural EOR	256.01
TEF Design	Cooper, Paul	Project Manager	231.00
TEF Design	Rostami, Maryam	Project Designer	161.70
TEF Design	Tom, Douglas	Managing Principal	290.00
TEF Design	Verzhbinsky, Alyosha	Consulting Principal	290.00
TEF Design	Vithalani, Viral	Project Architect	176.22
TEF Design	Wolfram, Andrew*	Project Principal/Design Principal	290.00
Telamon Engineering	Chan, Mennor	Project Manager	266.76
Telamon Engineering	Chan, Stephen	Contract Support	125.54
Telamon Engineering	Decosta, Paul	Party Chief - Field	141.70

<b>Company</b>	<b>Name</b>	<b>Position</b>	<b>Hourly Rate</b>
Telamon Engineering	Kwok, Wayne	Project Coordinator	69.05
Telamon Engineering	LyLy Lam	Civil Engineer 1	94.15
Telamon Engineering	Mak, Toni	Project Coordinator	84.74
Telamon Engineering	Munoz, Amador	Field Survey Crew	116.31
Telamon Engineering	Nguyen, Khang	CAD Tech	100.43
Telamon Engineering	Rodriguez, Ray	Utility Locator	94.15
Telamon Engineering	Salinas, Veronica	Field Survey Crew	126.01
Telamon Engineering	Tran, Joe	CAD Tech	94.15
Telamon Engineering	Woods, Earl	Survey Manager	188.30
Telamon Engineering	Zuuring, Doug	Senior Engineer	164.77
WRA, Inc	Bello, Nate	Mitigation Specialist	192.19
WRA, Inc	Chase, Daniel	Fisheries Biologist	135.97
WRA, Inc	Kalnins, Mark	Regulatory Permitting Specialist	135.97
WRA, Inc	Knecht, Ellie	Regulatory Permitting Specialist - BCDC	104.21
WRA, Inc	Lazarotti, Leslie	Regulatory Permitting Specialist	192.19
WRA, Inc	Salvaggio, George	Landscape Architect	209.57
WRA, Inc	Semion, Justin	Aquatic Biologist/Permitting	200.79

*\*Key Staff*

# Appendix D Organizational Chart



## INTEGRATING SERVICES

**Health Safety and Environment**  
Kathy Roberts, CSP, OHSF-CH2M

**Sustainable Asset Management and Funding**  
Jason Englemirch-CH2M

**Financing/Funding**  
Michael Malchuk-CH2M  
Carly Foster, CFM, AICP-ARC

**Data Management**  
Raja Kadiyala, PhD-CH2M

**60-Day Start Up**  
Sunny O'Hara-CH2M

**QA/QC**  
Lon Bladys, PE-CH2M

**Coastal Modeling/Engineering**  
Joseph Marrona, PE-ARC  
Luca Bassetti, PhD, PE-CH2M  
Nyle Winstow, PhD, PE-CH2M  
Don Ungary, PE-CH2M  
Claudio Passardi-CH2M

**Marine Structural and Assessments and Design**  
Mark Onodera, PE-CH2M  
Juan Mendosa, PE-CH2M  
Jeff Abrich, PE, SE-CH2M  
William Bruin, PE-SEF

**Flood/Coastal Resiliency Planning**  
Edgar Wastenhofer-ARC  
Ray Wood-FLS  
Carmela Dean, RG, CEG-PLU/E

**Seismic Analysis**  
Jennifer Ewcock, PE, SE-CH2M  
Carmela Bhalara, PE-CH2M

**Seismic Hazard Assessment**  
J. Alfredo Fernandez, PhD, PE-PLU/E

**Living Shorelines**  
Haifeng Zhou, PhD  
Nigel Pontas, PhD, CEng, CWEM-CH2M  
Mark Jaworski-CH2M

**Geotechnical Earthquake Vulnerability**  
Wei-Yu Chen, PhD, PE, GE-ARC  
Jose Ugaldes, PE-PLU/E  
Dario Rasoli, PhD, PE, GE-CH2M  
Larry Roth, PE, GE-ARC  
Devon van Rous, PE, GE-ARC

**Multi-Hazard Analysis**  
Forrest Slet, PE, CPP-CH2M  
Todd Anderson, PE-CH2M

**Building HAZUS**  
Kevin Moore, PE, SE-SE-4

**Other Facility Structures**  
Christina Kappel, ENV SP-CH2M

**Geotechnical Retrofits**  
Andy Hertsche, PE, GE-PLU/E  
Banyan Chamarathocour, PhD, SE-ARC  
Building Design  
Kristen Hubert, PE, SE-CH2M  
Julie Miranda, PE, SE-CH2M  
Harry Chang, SE-PLU/E

**Stormwater and Coastal Drainage**  
Brady Fuller, PE-CH2M  
Paul Tschirky, PhD, PEng-ARC  
Wesley Rau, PE-CH2M

**Resiliency Flood Hazard Analysis**  
John Adkinson, PhD-ARC  
Civil  
John Staphorzius-ARC  
Steve McAmbie, PE-CH2M  
Eric Coates, PE-CH2M  
Shailes Sarni, PE-CH2M  
Wayna Welch, PE-ARC  
David Fultz, PE-ARC  
Ryan Stoddard, PE-ARC

**Constructability**  
Lon Elledge, PE-CH2M

**Value Engineering**  
Paul Johnson, CWS-CH2M

**Emergency Response and Recovery**  
Josh A. Granvelder-ARC  
USACE Feasibility Analysis  
Walter Bason, PE-ARC  
Allan Highstreet, PMP-CH2M  
Stu Appelbaum-ARC  
Alternative Delivery  
Michelle Burkhardt, PE-CH2M  
Cost Estimating  
Jack Kayas-CH2M  
Edward Richter-SC  
Brad Saylor-SC  
Scheduling  
Megan Sussmiller, PE-CH2M

**Transportation Planning**  
Joe Speaks-CH2M  
Eris Owen-CH2M  
Loren Bloembergen, PE-CH2M  
Edward Granow-CH2M

**Transportation Engineering**  
Lauren Proctor, PE-CH2M  
Christopher Benson, PE-CH2M  
Leonard Heuston, PE-CH2M

**Urban Planning/Financial Analysis**  
Willet Mios, PLA, FAAR-CWS  
Olivia Moss-HEA  
Blaine Markan-HEA  
Pamela Conrad, PLA, LEED-ARC  
Lynn Sedway-SC  
Debbie Fern-ARC

**Architecture**  
Aysha Verzhbitsky, FAS-TEF  
Paul Cooper, AIA, LEED-TEF  
Sustainable Buildings  
Maryann Rostanti, LEED-TEF  
Historic Structures  
Andrew Woffram, AIA, LEED-TEF  
Asset Management  
Nik Riden, PE-CH2M  
Youth Engagement  
Villy Wang-CH2M

**NEPA/CEQA**  
Jasmin Mejia-CH2M  
Chad Backstrom-ICF  
Lorella Meyer, AICP-CH2M

**Aesthetics**  
Angela Liu-SC-1  
Biology  
Justin Samlson-WFA  
Lynne Hosley-CH2M  
Christopher Benson, PE-CH2M  
Leonard Heuston, PE-CH2M

**Fisheries Biologist**  
Daniel Chase-WFA

**Geology**  
Dario Rasidi, PhD, PE, GE-CH2M

**Geology/Hydrology**  
Gary Clendenin, PG-ICF-CH2M

**Economic Analysis**  
Steve Hatcher, PhD-CH2M

**Air Quality/Noise**  
Shannon Hatcher-ICF

**Climate Change/Sea Level Rise**  
Armin Munster, PE-CH2M  
Tapash Das, PhD-CH2M  
Sarah Deslauners, PE-CAR-TEF

**Hydrology/Water Quality**  
Kyla Winstow, PhD, PE-CH2M

**Recreation**  
Jaques Veramontes-ICF

**Socioeconomics**  
Shilpa Trisal-ICF  
Lorella Meyer, AICP-CH2M

**Cultural Resources**  
Susan Lazar-ICF  
J. Tait Eliaz, RPA-ICF

**Permitting**  
Mark Kalnins-WFA  
Lynne Hosley-CH2M

**BCOC**  
Elle Knecht-WFA

**USFWS**  
Jason Valich-WFA

**NOAA**  
Dan Chase-HEA

**Corps of Engineers (404)**  
Mark Kalnins-WFA

**RWQCB**  
Leslie Lazar-HEA

**SHPO**  
Susan Lasset-ICF

**Economics Analysis**  
Mary Jo Kealy-CH2M  
Richard Mangano-ARC

**Underwater Inspection**  
John Mogray, PE-CH2M  
George Oines, PE-CH2M  
Andrew Lal-CH2M

**SEISMIC PEER REVIEW**  
Nason McCullough, PhD, PE-CH2M  
Jeandhan Bray, PhD UC  
Berkeley  
Don Anderson, PhD, PE-CH2M  
Shantier Vandan, PhD, PE-SC-1

**GLOBAL EXPERTS**  
Waterfront Planning  
Andrew Barach, PE-CH2M  
Ferry Facilities  
Doug Plycar, PE-CH2M  
Marine Structures  
Bill Pappas, PE-CH2M  
Coastal Modeling  
Sean O'Neill, PhD, PE-CH2M  
Hugh Roberts, PE-ARC  
Principal Architect  
Douglas Tom, FAIA-TEF  
USACE Civil Works  
Steve Browning, PE-CH2M  
Program Management  
Drew Jeter-CH2M  
Coastal Resiliency  
Piet Dirckx-ARC

**MEMORANDUM**

July 7, 2017

**TO:** MEMBERS, PORT COMMISSION  
Hon. Willie Adams, President  
Hon. Kimberly Brandon, Vice President  
Hon. Leslie Katz  
Hon. Doreen Woo Ho

**FROM:** Elaine Forbes  
Executive Director

**SUBJECT:** Informational presentation regarding the Request for Proposals (RFP) for Planning, Engineering, and Environmental Services for the Seawall Resiliency Project

**DIRECTOR'S RECOMMENDATION:** Informational only – No action required

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**EXECUTIVE SUMMARY**

On March 14, 2017 the Port Commission authorized Port staff, through Resolution 17-14, to issue a Request for Proposals ("RFP") to solicit engineering consulting services for the Seawall Resiliency Project for an amount not to exceed \$40,000,000. On April 24, 2017, Port staff issued a RFP for such consulting services.

The Port received five proposals in response to the RFP. Staff determined that all five proposals were responsive and met minimum qualifications specified in the RFP. The Contract Monitoring Division (CMD) determined that all five firms met the pre-award requirements of the City's Local Business Enterprise Utilization and Non-Discrimination in Contracting Ordinance (the LBE Ordinance). An evaluation panel then evaluated and scored the written proposals and held oral interviews. CMD monitored the panel evaluation process. After the panel completed its evaluation and scoring of the proposals, Port staff identified CH2M HILL Engineers, Inc., as the highest-ranked firm.

Port staff intends to enter contract negotiations with CH2M.HILL Engineers, Inc. The proposed contract, for the not-to-exceed amount of \$40,000,000, will carry a term of ten years with the option to extend the term for one additional year at the Port's sole discretion. Prior to issuance of the RFP, CMD established a 15 percent subcontracting goal for LBE participation in this contract, pursuant to San Francisco Administrative

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Code Chapter 14B. In its proposal, CH2M HILL Engineers, Inc., agreed to exceed this goal and achieve 21 percent LBE subcontractor participation. Therefore the proposed contract will incorporate a 21 percent LBE subcontractor participation requirement.

Upon completion of contract negotiations, the Port will return to the Port Commission on August 8, 2017, with a request for approval of contract award. Additionally, Charter Section 9.118 requires Board of Supervisors' approval of contracts for professional services related to design, engineering or construction management when the term exceeds ten years or the contract anticipates expenditures of \$10,000,000 or more. The Board of Supervisors will be on legislative recess from August 1 through September 4. To ensure Board of Supervisors' approval of the contract in September, staff will work with the Mayor's Office to introduce legislation seeking Board approval prior to Port Commission approval of the proposed contract award. Staff will have the opportunity to amend the legislation to reflect any final determinations made by the Port Commission prior to the first hearing with the Board of Supervisors' Budget and Finance Committee.

## **STRATEGIC OBJECTIVE**

This contract opportunity will support the goals of the Port's Strategic Plan as follows:

### Engagement:

By promoting seawall knowledge using various media and outreach efforts, and by leading an inclusive stakeholder process to develop goals, values, and ensure consideration of all issues during development and implementation of the Seawall improvement program.

### Livability:

By increasing the proportion of funds spent by the Port on LBE contracts.

### Resiliency:

By leading the City's efforts to address threats from earthquakes and flood risk through research and infrastructure improvements to the Seawall and Port property.

### Sustainability:

By enhancing the quality of the Bay water and habitat with the improvements, by limiting construction impacts and waste, and by sustainable design and construction best management practices.

### Stability:

By seeking traditional and innovative funding solutions and by maximizing external investment.

## **BACKGROUND**

The Port is the lead City agency for the restoration project of the Seawall which is expected to span ten years cost approximately \$500 million. The Seawall was constructed over 100 years ago and stretches for more than three miles from Fisherman's Wharf to Mission Creek along San Francisco's historic waterfront. With a

century of erosion and structural deterioration, the Seawall must be upgraded and improved to protect critical infrastructure from seismic vulnerabilities and sea level rise, and continue to function today, and for generations to come.

The Seawall infrastructure supports the world-renowned Embarcadero Promenade which was added in 2016 to the list of National Trust for Historic Preservation's Endangered Historic Places. Additionally, the Seawall supports an extensive network of infrastructure, utilities and assets owned by various City and County of San Francisco agencies such as the Port of San Francisco, San Francisco Fire Department (SFFD), San Francisco Municipal Transportation Agency (SFMTA), San Francisco Public Utilities Commission (SFPUC), San Francisco Public Works (SFPW), and the Office of Community Investment and Infrastructure (OCII). Regional and private entities such as Bay Area Rapid Transit (BART), Golden Gate Ferry, and Pacific Gas and Electricity (PG&E) own and operate critical infrastructure that the Seawall protects. The Seawall also supports infrastructure for small businesses along the waterfront that contribute to the City's economic vitality and diversity and generate billions of dollars in rent, business income, and wages. A recent economic analysis conducted by the Port, concluded that the Seawall supports over \$25 billion of economic activity annually.

The Seawall is highly vulnerable to widespread damage from a major seismic event and to overtopping from sea level rise in the coming decades. There is a 72 percent chance of a major seismic event taking place in the Bay Area in the next 30 years and sea level could rise up to 66 inches by year 2100. A recent seismic vulnerability study showed that a major seismic event is likely to cause ground movement that would damage both the Seawall and wharf structures and could contribute to loss of life and significant economic harm.

The first phase of a Seawall Resiliency Project will address the immediate seismic vulnerabilities and life-safety issues associated with select and critical sections of the seawall as well as address the highest flood risks. Design and engineering solutions to these challenges will also consider expected sea level rise.

## **CONTRACT SCOPE**

The proposed contract scope includes the specialized and expert services needed to complete planning studies, develop and assess alternatives, select and define a preferred alternative, advance engineering and design to 35 percent, complete California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) approval, advance environmental and other permitting for construction, develop and recommend final design and construction project(s) delivery methods, and to assist with managing and review of final design and construction of the project(s). Final design, construction, and construction management will be handled via separate contracts.

The proposed contract will include the following services or personnel:

### Phase 0: Program Management and Controls (10 years)

Support the Port's Project Management team by providing the following services:



- Consultant Team Project Manager, single point of contact.
- Technical Team Leaders for: Structural Engineering, Coastal Engineering, Geotechnical Engineering, Civil Engineering, Utility Engineering, Transportation Engineering, Urban Planning and Design, Historic Preservation, Environmental Planning and Permitting
- Quarterly Project Reports
- Monthly Project Updates
- Meeting scheduling and minutes
- Develop and maintain a Risk Register
- Assist the Port in refining and actively managing the Project Management Plan

#### Phase 1: Planning (2 years)

Lead and carry out all work necessary to complete a multi-hazard feasibility study of the seawall that culminates in a framework to address the dual threats of seismic and flood risk and a recommendation for initial improvements to be implemented by this Project. Include conceptual designs, cost estimates, construction impacts and schedule, environmental impacts and benefits, economic impacts and benefits.

- Feasibility Study (including United States Army Corps of Engineers (USACE) requirements)
  - Identify problems and opportunities
  - Inventory and forecast conditions
  - Formulate alternatives
  - Evaluate alternatives
  - Compare alternatives
  - Select a recommended program for initial improvements and a framework for responding to the dual threat of seismic and flood risk.
- Supporting Studies and Scope
  - Condition Assessment of Bulkhead Wall & Wharves, Embarcadero Promenade and Roadway, Light Rail, Utilities.
  - Advance existing screening level earthquake vulnerability assessment including developing and implementing a subsurface exploration program.
  - Advance existing flood assessment including developing coastal modeling, transects for wave run-up and effects, and consideration of sea level rise and other climate change impacts such as storm intensity.
  - Assessing existing environmental conditions and potential impacts and benefits with various improvement concepts.
  - Constructability analysis and impact assessment of various improvement concepts
  - Economic analysis with direct and indirect considerations of various improvement concepts.
  - Developing and supporting the Port to complete a stakeholder engagement process that includes public workshops, engages Port tenants, and key stakeholders.
  - Cost estimating

- Implementing a project area specific multi-hazard loss estimation analysis with customized inputs for piers, wharves, bulkhead buildings, shed buildings, seawall and geotechnical conditions.

Phase 2: Preliminary Design & Entitlements (2 years)

During this Phase, the consultant will advance design of initial improvements to 35% level and complete both CEQA and NEPA. Specific scope tasks will include:

- CEQA, Programmatic and Initial Improvements
- NEPA, Programmatic and Initial Improvements
- Advance Design & Engineering of Initial Improvements to 35% Level, including Plans, Specifications, Estimate, and supporting Design & Engineering Documents
- Constructability Review and Analysis
- Value Engineering
- Design and Construction Delivery Options and Recommendations
- Develop an approach to permitting pilot studies and initial improvements, develop alternatives analysis, environmental mitigation and enhancement concepts, generate information needed for permitting construction; apply for permits and approvals from the San Francisco Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, USACE and resource protection agencies. Finalizing environmental permits for construction is expected to continue through Final Design
- Continuation of stakeholder engagement

Phase 3: Final Design and Construction (6 years)

During this Phase, the consultant will support the Port as other consultants and contractors complete final design, permitting, construction, and mitigation and monitoring plans. Others will also provide construction management services.

- Review final designs and engineering studies, reports, plans, specifications, calculations, cost estimates, and construction schedules completed by the other consultant teams.
- Develop and complete a value engineering process for each project.
- Provide constructability review for each project.
- Design, engineer, and implement for pilot projects (small scale projects that may be necessary to understand design and viability of specific construction techniques).
- Assist in oversight of construction management.

**SELECTION PROCESS**

On April 24, 2017, the Port issued the RFP, with submittals due on June 2, 2017. A pre-submittal meeting was held on May 3, 2017. Seventy people representing over 50 unique consulting firms attended the pre-submittal meeting.

The Port received five responses to the RFP in advance of the submittal deadline. The following five consultant teams (identified by the lead consultant in alphabetical order) responded to the RFP:

1. AECOM Technical Services, Inc.
2. CH2M HILL Engineers, Inc.
3. Parsons Transportation Group, Inc.
4. Seawall Innovations (A Tetra Tech/GHD, Inc. Joint Venture)
5. Stantec Consulting, Inc.

Port staff determined that all five firms met the minimum qualifications specified in the RFP. CMD then reviewed the submittals for compliance with the LBE Ordinance requirements and concluded that all five firms met the requirements.

#### Evaluation Panel

A four-member evaluation panel convened to evaluate and score written proposals on June 15, 2017. The panel consisted of an Assistant General Manager from the San Francisco Public Utilities Commission (SFPUC), a Section Manager for structural engineering from San Francisco Public Works, a Deputy Director of Planning and Environmental Services from the Port, and a structural engineer from the Port. The panel was diverse in terms of race and gender and had expertise in structural engineering (marine and civil), environmental review and analysis, and planning. The Port's CMD Contract Compliance Officer approved the panel composition and attended the initial panel meeting and oral interviews.

#### Evaluation Criteria

The selection panel evaluated and scored the written proposals panel using the following criteria:

- 30 points – project approach
- 40 points – staffing plan, organization, experience, and quality
- 30 points – firm experience and capability
- 5 points – proposer references
- 105 points total

Port staff forwarded all five proposers to the second phase of the evaluation process for oral interviews, which were held on June 22, 2017. Oral interviews were one hour each and included the following: a 15 minute presentation, 35 minutes to answer five standard questions that were distributed two days in advance, and seven minutes to evaluate and respond to a bonus question asked at the end of the interview. Each panel member evaluated and scored the proposers' oral interviews based upon the following criteria:

- 25 points – proposer's presentation - team experience
- 20 points – question 1: earthquake risk assessment approach
- 20 points – question 2: flood and sea level rise risk assessment approach
- 15 points – question 3: approach to implementable solutions for historic preservation, earthquake safety, and flood protection

- 10 points – question 4: enhance the sustainability of the Embarcadero Seawall and improve Bay ecosystem
- 10 points – question 5: project management and cost controls
- 5 points – question 6: economic/merchant activity during & after construction
- 105 points total

The final rankings resulting from the scoring of written proposals and the interviews are shown in *Table 1*. In accordance with the RFP scoring criteria, Port and CMD staff determined the highest-ranked consultant, CH2M HILL Engineers, Inc., is eligible for contract award. Port staff issued a Notice of Intent to Award a contract on June 26, 2017.

**Table 1: Seawall Communications RFP Proposal Scores**

Proposer	Written Proposal Score (Avg/Total)	Oral Interview Score (Avg/Total)	Final Total Score (Avg/Total)	Final Rank
CH2M	90/359	97/386	187/745	1
AECOM	89/357	87/348	176/705	2
Seawall Innovations (Tetra Tech/GHD JV)	84/336	89/357	173/693	3
Stantec	94/375	78/312	172/687	4
Parsons	79/315	85/339	164/654	5

*Maximum score for written proposal was 420 and oral interview was 420, for total possible points of 840.*

## SELECTED CONSULTANT

### About CH2M HILL Engineers, Inc.

Employee-owned CH2M HILL Engineers, Inc. is a global leader in full-service consulting, design, design-build, operations and program management for public and private clients. Established in 1946, and providing services to the City of San Francisco since 1972, CH2M HILL Engineers, Inc. provides consulting services in the sectors of environmental, water, transportation, and energy. CH2M HILL Engineers, Inc., has worked on numerous City and region-wide projects including the San Francisco Bay Area Water Emergency Transportation Authority Ferry Terminal, SFPUC Water System Improvement Program, 3<sup>rd</sup> & King Street Railyard Planning, and SFPUC Biosolids Project.

Engineering News-Record (ENR) ranks CH2M HILL Engineers, Inc. as one of the top five firms in categories specifically aligned to services required for the Seawall Resiliency Project, namely: Ports and Marine Facilities (No. 2), Environmental Services

(No. 1), Transportation (No. 3), Water (No. 1), Design (No. 3), Program Management (No. 2), and Construction Management (No. 3).

Local Business Enterprise

The LBE subcontracting goal for this project is 15 percent of the total cost of services procured through this contract. CH2M HILL Engineers, Inc., bypassed the good faith outreach efforts specified by CMD by committing to meeting a 21 percent LBE subcontracting goal pursuant to the LBE Ordinance (San Francisco Administrative Code Chapter 14B).

To meet its goal, and as identified in *Table 2*, the CH2M HILL Engineers, Inc., team includes a number of LBE and non-LBE partners, including Telamon Engineering for civil engineering and surveying, Structus Inc. for structural engineering, Hollins Consulting Inc. for construction management, Geotechnical Consultants Inc. (GTC) for geotechnical engineering, Civic Edge Consulting for community relations, Saylor Consulting Group for value/quality engineering, AGS Inc. for environmental advisory services, RDJ Enterprises for strategic advising and community outreach, BAYCAT for arts and technology, Sedway Consulting Inc. for real estate appraisals, and Square One Productions for architectural illustrations.

**Table 2: Seawall Communications LBE Subconsultant Participation**

Firm	Portion of Work	% of Contract Work	LBE Type
AGS Inc	Environmental Advisory Services; Geotechnical Engineering	0.50%	MBE
Civic Edge Consulting	Community Relations/Public Affairs; Public Relations Services <sup>1</sup>	1.00%	WBE
BAYCAT	Arts and Technology	0.10%	OBE
CHS Consulting Group	Transportation & Traffic Engineering	0.50%	MBE
Geotechnical Consultants Inc	Geotechnical Engineering	2.00%	MBE
Hollins Consulting Inc	Construction Management; Administrative Services	3.00%	MBE
RDJ Enterprises LLC	Community Relations/Public Affairs; EEO/Affirmative Action/M/WBE Assistance; Educational and Training Services	0.50%	MBE
Saylor Consulting Group	Value/Quality Engineering	1.30%	WBE
Sedway Consulting Inc	Real Estate: Appraisers, Brokers, Agents	0.20%	WBE
Square One Productions	Architectural Illustrator	0.20%	MBE
Structus Inc	Structural Engineering; Marine	3.80%	MBE

<sup>1</sup> Port Staff received authorization to award the Seawall Resiliency Project Communications Contract to Civic Edge (Resolution No. 17-24). Staff will work with CH2M Hill Engineers, Inc. and Civic Edge to balance scope of contracts and avoid duplication of services.

	Architecture and Engineering		
Telamon Engineering	Civil Engineering; Surveying (Land & Aerial); Utilities & Power Services; CAD	7.90%	WBE
	<b>Total</b>	<b>21%</b>	

On June 26, 2017, CMD issued a memorandum determining the Port's selection process for the Planning, Engineering, and Environmental Services RFP was compliant with the provisions of the City's LBE Ordinance.

### **FUNDING & COST CONTROLS**

These proposed contract services will be partially funded by the CPO-756 Seawall and Marginal Wharf Repair Project in the amount of \$6,300,000. To date, the project has received \$9,600,000 in funding through a combination of General Fund, Port Capital, and contributions from the Municipal Transportation Agency and the Planning Department. The remaining amount will be funded by other project sources that the Port is currently pursuing, including the potential 2018 Seawall General Obligation Bond.

Port staff will implement cost controls during the contract by only authorizing the expenditure of funds related to specific phases and project tasks. No amount of the contract will be authorized in excess of available funding at any point within the project and contract term.

### **CONCLUSION**

Port staff has completed the Planning, Engineering, and Environmental Services RFP evaluation and selected CH2M HILL Engineers, Inc. as the most-qualified consulting firm to provide the planning, engineering, and environmental services described in this report. Therefore, staff will enter into contract negotiations with CH2M Hill Engineers, Inc. for planning, engineering, and environmental services in an amount not-to-exceed \$40,000,000 and a term of ten years, and return to the Port Commission with a resolution authorizing contract award on August 8, 2017. Additionally, staff will introduce legislation to the Board of Supervisors by July 25<sup>th</sup> to ensure approval of the contract by September 2017.

Prepared by: Carlos Colón, Seawall Project Administrator  
Finance & Administration Division

For: Katharine Petrucione, Deputy Director  
Finance & Administration Division  
and  
Rod Iwashita, Deputy Director  
Engineering Division

#### Attachments

- A: CMD LBE Pre-award Memorandum
- B: CMD Award Memorandum

**MEMORANDUM**

August 5, 2017

**TO:** MEMBERS, PORT COMMISSION  
Hon. Willie Adams, President  
Hon. Kimberly Brandon, Vice President  
Hon. Leslie Katz  
Hon. Doreen Woo Ho

**FROM:** Elaine Forbes  
Executive Director

**SUBJECT:** Request for authorization to award a contract to CH2M HILL Engineers, Inc., for planning, engineering, and environmental services for the Seawall Resiliency Project in an amount of \$36,349,740 and authorization for staff to increase the contract amount, if needed for unanticipated contingencies, by an additional \$3,634,974 (10% of \$36,349,740) for a total contract authorization of \$39,984,714, with a term of ten years and the Port's option to extend the term for one additional year

**DIRECTOR'S RECOMMENDATION:** Approve the Attached Resolution

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**EXECUTIVE SUMMARY**

On March 14, 2017, the Port Commission authorized Port staff, through Resolution 17-14, to issue a Request for Proposals ("RFP") to solicit engineering and related consulting services for the Seawall Resiliency Project for an amount not to exceed \$40,000,000. On April 24, 2017, Port staff issued a RFP for such consulting services and staff now recommends, subject to approval of the Board of Supervisors, award of the contract in the amount not to exceed \$39,984,714.

The Port received five proposals in response to the RFP. Staff determined that all five proposals were responsive and met the minimum qualifications specified in the RFP. The Contract Monitoring Division ("CMD") determined that all five firms met the pre-award requirements of the City's Local Business Enterprise Utilization and Non-Discrimination in Contracting Ordinance (San Francisco Administrative Code Chapter 14B; the "LBE Ordinance"). An evaluation panel then evaluated and scored the written proposals and held oral interviews. CMD monitored the panel evaluation process. After the panel completed its evaluation and scoring of the proposals, Port staff identified CH2M HILL Engineers, Inc. ("CH2M"), as the highest-ranked firm.

**THIS PRINT COVERS CALENDAR ITEM NO. 12A**

Port staff now seeks Port Commission authorization to award a professional services contract for planning, engineering, and environmental services for the Seawall Resiliency Project to the highest-ranked consultant, CH2M. The proposed contract, for the not-to-exceed amount of \$39,984,714, will carry a term of ten years with the option to extend the term for one additional year at the Port's sole discretion. Prior to issuance of the RFP, CMD established a 15 percent subcontracting goal for LBE participation in this contract, pursuant to the LBE Ordinance. In its proposal, CH2M agreed to exceed this goal and achieve 21 percent LBE subcontractor participation. Therefore, the proposed contract will incorporate a 21 percent LBE subcontractor participation requirement.

Charter Section 9.118 requires Board of Supervisors' approval of contracts for professional services related to design, engineering or construction management when the term exceeds ten years or the contract anticipates expenditures of \$10,000,000 or more. Port staff will advocate for the Board of Supervisors to approve the contract following Port Commission direction and approval.

## **STRATEGIC OBJECTIVE**

This contract opportunity will support the goals of the Port's Strategic Plan as follows:

### Engagement:

By leading an inclusive stakeholder process to develop goals, values, and ensure consideration of all issues during development and implementation of the Seawall improvement program.

### Livability:

By increasing the proportion of funds spent by the Port on contract services performed by LBE firms.

### Resiliency:

By leading the City's efforts to address threats from earthquakes and flood risk through research and infrastructure improvements to the Seawall.

### Sustainability:

By enhancing the quality of the Bay water and habitat with the improvements, by limiting construction impacts and waste, and by sustainable design and construction best management practices.

## **BACKGROUND**

The Port is the lead City agency for the restoration of the Seawall, a project expected to span ten years from 2015-2025 and cost approximately \$500 million. The Seawall was constructed over 100 years ago and stretches for more than three miles from Fisherman's Wharf to Mission Creek along San Francisco's historic waterfront. With a century of erosion and structural deterioration, the Seawall must be upgraded and improved to protect critical infrastructure from seismic vulnerabilities and sea level rise and continue to function today and for generations to come.



The Seawall infrastructure supports the world-renowned Embarcadero Promenade which was added in 2016 to the list of National Trust for Historic Preservation's Endangered Historic Places. Additionally, the Seawall supports an extensive network of infrastructure, utilities and assets owned by various City and County of San Francisco agencies such as the Port of San Francisco, San Francisco Fire Department, San Francisco Municipal Transportation Agency, San Francisco Public Utilities Commission, San Francisco Public Works, and the Office of Community Investment and Infrastructure. Regional and private entities such as the Bay Area Rapid Transit, Golden Gate Ferry, and Pacific Gas and Electricity own and operate critical infrastructure that the Seawall protects. The Seawall also supports infrastructure for small businesses along the waterfront that contribute to the City's economic vitality and diversity and generate billions of dollars in rent, business income, and wages. A recent economic analysis conducted by the Port, concluded that the Seawall supports over \$25 billion of economic activity annually.

The Seawall is highly vulnerable to widespread damage from a major seismic event and to overtopping from sea level rise in the coming decades. There is a 72 percent chance of a major seismic event taking place in the Bay Area in the next 30 years and sea level could rise up to 66 inches by year 2100. A recent seismic vulnerability study showed that a major seismic event is likely to cause ground movement that would damage both the Seawall and wharf structures and could contribute to loss of life and significant economic harm.

The first phase of a Seawall Resiliency Project will require specialized planning, engineering, and related services to address the immediate seismic vulnerabilities and life-safety issues associated with specific, critical sections of the seawall as well as address the highest flood risks. Design and engineering solutions to these challenges will also consider expected sea level rise.

## **CONTRACT SCOPE OF SERVICES**

The proposed scope for the proposed contract includes the specialized and expert services needed to complete planning studies, develop and assess alternatives, select and define a preferred alternative, advance engineering and design to 35 percent, complete California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) approvals, advance environmental and other permitting for construction, develop and recommend final design and construction project(s) delivery methods, and to assist with managing and review of final design and construction of the project(s). Final design, construction, and construction management will be handled via separate contracts.

The proposed contract will require the consultant to provide the following services:

### Phase 0: Program Management and Controls (10 years)

The consultant will support the Port's Project Management team by providing the following services and personnel:

- Consultant team project manager, single point of contact.
- Technical team leaders for: structural engineering, coastal engineering, geotechnical engineering, civil engineering, utility engineering, transportation

engineering, urban planning and design, historic preservation, environmental planning and permitting

- Quarterly project reports
- Monthly project updates
- Meeting scheduling and minutes
- Develop and maintain a risk register
- Assist the Port in refining and actively managing the project management plan

#### Phase 1: Planning (2 years)

The consultant will lead and carry out all work necessary to complete a multi-hazard feasibility study of the Seawall that culminates in a framework to address the dual threats of seismic and flood risk and a recommendation for initial project improvements to be implemented. This will include conceptual designs, cost estimates, construction impacts and schedule, environmental impacts and benefits, economic impacts and benefits.

- Conduct a Feasibility Study
  - Identify problems and opportunities
  - Inventory and forecast conditions
  - Formulate project alternatives
  - Evaluate project alternatives
  - Compare project alternatives
  - Select a recommended program for initial improvements and a framework for responding to the dual threat of seismic and flood risk.
- Prepare Supporting Studies and Scopes of Repair
  - Condition assessment of bulkhead wall and wharves, Embarcadero promenade and roadway, light rail, utilities.
  - Advance existing screening level earthquake vulnerability assessment including developing and implementing a subsurface exploration program.
  - Advance existing flood assessment including developing coastal modeling, transects for wave run-up and effects, and consideration of sea level rise and other climate change impacts such as storm intensity.
  - Assess existing environmental conditions and potential impacts and benefits with various improvement concepts.
  - Constructability analysis and impact assessment of various improvement concepts.
  - Economic analysis with direct and indirect considerations of various improvement concepts.
  - Develop and support the Port to complete a community planning and stakeholder engagement process to inform improvement concepts that includes public workshops, engages Port tenants, and key stakeholders.
  - Cost estimating
  - Implement a project-area specific multi-hazard loss estimation analysis with customized inputs for piers, wharves, bulkhead buildings, shed buildings, seawall and geotechnical conditions.

### Phase 2: Preliminary Design & Entitlements (2 years)

During this phase, the consultant will advance the design of initial improvements to the 35 percent level and complete both CEQA and NEPA processes. This contract scope will require the consultant to perform analyses for CEQA and NEPA regarding specific improvement projects that emerge from the proposed contract work. However, this contract scope, in itself, does not constitute a "project" that is subject CEQA. Specific scope tasks will include:

- CEQA, programmatic and initial improvements
- NEPA, programmatic and initial improvements
- Advance design and engineering of initial improvements to 35 percent level, including plans, specifications, estimate, and supporting design and engineering documents
- Constructability review and analysis
- Value engineering
- Design and construction delivery options and recommendations
- Develop an approach to permitting pilot studies and initial improvements, develop alternatives analysis, environmental mitigation and enhancement concepts, generate information needed for construction permits; apply for permits and approvals from the San Francisco Bay Conservation and Development Commission (BCDC), State Water Resources Control Board, USACE and resource protection agencies. Finalizing environmental permits for construction is expected to continue through final design
- Continuation of stakeholder engagement

### Phase 3: Final Design and Construction (5 years)

During this phase, the consultant will support the Port as other consultants and contractors complete final design, permitting, construction, and mitigation and monitoring plans. Others will also provide construction management services.

- Review final designs and engineering studies, reports, plans, specifications, calculations, cost estimates, and construction schedules completed by the other consultant teams.
- Develop and complete a value engineering process for each project.
- Provide constructability review for each project.
- Design, engineer, and implement for pilot projects (small scale projects that may be necessary to understand design and viability of specific construction techniques).
- Assist in oversight of construction management.

## **SELECTION PROCESS**

On April 24, 2017, the Port issued the RFP for these consulting services, with submittals due on June 2, 2017. A pre-submittal meeting was held on May 3, 2017. Over one hundred people attended the pre-submittal meeting.

The Port received five responses to the RFP in advance of the submittal deadline. The following five consultant teams (identified by the lead consultant in alphabetical order) responded to the RFP:

1. AECOM Technical Services, Inc.
2. CH2M HILL Engineers, Inc.
3. Parsons Transportation Group, Inc.
4. Seawall Innovations (A Tetra Tech/GHD, Inc. Joint Venture)
5. Stantec Consulting, Inc.

Port staff determined that all five firms met the minimum qualifications specified in the RFP. CMD then reviewed the submittals for compliance with the LBE Ordinance requirements and concluded that all five firms met the requirements.

#### Evaluation Panel

A four-member evaluation panel convened to evaluate and score written proposals on June 15, 2017. The panel consisted of an Assistant General Manager from the San Francisco Public Utilities Commission (SFPUC), a Section Manager for structural engineering from San Francisco Public Works, a Deputy Director of Planning and Environmental Services from the Port, and a structural engineer from the Port. The panel was diverse in terms of race and gender and had expertise in structural engineering (marine and civil), environmental review and analysis, and planning. The Port's CMD Contract Compliance Officer approved the panel composition and attended the initial panel meeting and oral interviews.

#### Evaluation Criteria

The selection panel evaluated and scored the written proposals using the following RFP criteria:

- 30 points – project approach
- 40 points – staffing plan, organization, experience, and quality
- 30 points – firm experience and capability
- 5 points – proposer references
- 105 points total

Port staff forwarded all five proposers to the second phase of the evaluation process for oral interviews, which were held on June 22, 2017. Oral interviews were one hour each and included the following: a 15-minute presentation, 35 minutes to answer five standard questions that were distributed two days in advance, and seven minutes to evaluate and respond to a bonus question asked at the end of the interview. Each panel member evaluated and scored the proposers' oral interviews based upon the following criteria:

- 25 points – proposer’s presentation - team experience
  - 20 points – question 1: earthquake risk assessment approach
  - 20 points – question 2: flood and sea level rise risk assessment approach
  - 15 points – question 3: approach to implementable solutions for historic preservation, earthquake safety, and flood protection
  - 10 points – question 4: enhance the sustainability of the Embarcadero Seawall and improve Bay ecosystem
  - 10 points – question 5: project management and cost controls
  - 5 points – question 6: economic/merchant activity during and after construction
- 105 points total

The final rankings resulting from the scoring of written proposals and the interviews are shown in *Table 1*. In accordance with the RFP scoring criteria, Port and CMD staff determined the highest-ranked consultant, CH2M, is eligible for contract award. Port staff issued a Notice of Intent to Award a contract to CH2M on June 26, 2017.

**Table 1: Seawall Communications RFP Proposal Scores**

Proposer	Written Proposal Score (Avg/Total)	Oral Interview Score (Avg/Total)	Final Total Score (Avg/Total)	Final Rank
CH2M	90/359	97/386	187/745	1
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Seawall Innovations (Tetra Tech/GHD JV)	84/336	89/357	173/693	3
Stantec	94/375	78/312	172/687	4
Parsons	79/315	85/339	164/654	5

*Maximum score for written proposal was 420 and oral interview was 420, for total possible points of 840.*

**SELECTED CONSULTANT**

Based upon the final scoring, Port staff recommends awarding the planning, engineering, and environmental services contract for the Seawall Resiliency Project to CH2M.

About CH2M HILL Engineers, Inc.

Employee-owned CH2M is a global leader in full-service consulting, design, design-build, operations and program management for public and private clients. Established in 1946, and providing services to the City and County of San Francisco since 1972, CH2M provides consulting services in the sectors of environmental, water, transportation, and energy. CH2M, has worked on numerous City and region-wide projects including the San Francisco Bay Area Water Emergency Transportation Authority Ferry Terminal, SFPUC

Water System Improvement Program, 3<sup>rd</sup> & King Street Railyard Planning, and SFPUC Biosolids Project.

Engineering News-Record (ENR) ranks CH2M as one of the top five firms in categories specifically aligned to services required for the Seawall Resiliency Project, namely: Ports and Marine Facilities (No. 2), Environmental Services (No. 1), Transportation (No. 3), Water (No. 1), Design (No. 3), Program Management (No. 2), and Construction Management (No. 3).

#### Potential Merger with Jacobs Engineering

On August 2, 2017, CH2M's executive leadership announced the possible acquisition of the firm by Jacobs Engineering. Established in 1947, Jacobs is a Fortune 500 global provider of technical, professional, and scientific services, including engineering, architecture, construction, operations and maintenance. The CH2M project team is very enthusiastic about the prospect of joining forces with Jacobs, viewing it as an opportunity to combine differentiated services and provide broader best-in-class people, solutions, technical excellence and delivery.

While an agreement for sale has been reached between the firms, it will have to go through a customary vetting process, regulatory approvals, and be approved by the company's shareholders. This process will take place over the remainder of the calendar year with a potential merger of the organizations in the first quarter of 2018. Until such time that this process is successfully completed, CH2M will continue to operate and respond as its own company and, accordingly, the proposed contract will be executed under "CH2M Hill Engineers, Inc."

CH2M reaffirmed their continued commitment to the Port of San Francisco and to the successful delivery of the Seawall Resiliency Project. The staff that CH2M-Arcadis proposed for the Seawall Project will not change and the team is ready and eager to commence work as soon as possible. If a merger with Jacobs takes place in 2018, CH2M is confident that their ability to serve the Port under this contract will be enhanced (See Attachment C).

#### Local Business Enterprise

CMD established a LBE subcontracting goal of 15 percent for this project based on the total cost of services procured through this contract, pursuant to the LBE Ordinance. CH2M bypassed the good faith outreach efforts specified by CMD by committing to a 21 percent LBE subcontracting participation goal that will be incorporated in the contract requirements.

To meet its 21 percent LBE subcontracting goal, and as identified in *Table 2*, the CH2M team includes a number of LBE and non-LBE partners, including Telamon Engineering for civil engineering and surveying, Structus Inc. for structural engineering, Hollins Consulting Inc. for construction management, Geotechnical Consultants Inc. (GTC) for geotechnical engineering, Civic Edge Consulting for community planning, Saylor Consulting Group for value/quality engineering, AGS Inc. for environmental advisory services, RDJ Enterprises for strategic advising and community outreach, BAYCAT for arts and technology, Sedway Consulting Inc. for real estate appraisals, and Square One Productions for architectural

illustrations.

**Table 2: Seawall Communications LBE Subconsultant Participation**

Firm	Portion of Work	% of Contract Work	Contract Amount <sup>1</sup>	LBE Type
AGS Inc	Environmental Advisory Services; Geotechnical Engineering	0.62%	\$181,654	MBE
BAYCAT	Arts and Technology	0.12%	\$39,959	OBE
CHS Consulting Group	Transportation & Traffic Engineering	0.13%	\$40,933	MBE
Civic Edge Consulting	Community Planning and Stakeholder Engagement/Public Affairs; Public Relations Services	0.26%	\$84,662	WBE
Geotechnical Consultants Inc	Geotechnical Engineering	3.00%	\$958,585	MBE
Hollins Consulting Inc	Construction Management; Administrative Services	3.61%	\$1,155,056	MBE
RDJ Enterprises LLC	Community Relations/Public Affairs; EEO/Affirmative Action/M/WBE Assistance; Educational and Training Services	0.63%	\$198,039	MBE
Saylor Consulting Group	Value/Quality Engineering	1.43%	\$456,435	WBE
Sedway Consulting Inc	Real Estate: Appraisers, Brokers, Agents	0.33%	\$103,847	WBE
Square One Productions	Architectural Illustrator	0.33%	\$103,847	MBE
Structus Inc	Structural Engineering; Marine Architecture and Engineering	2.60%	\$830,774	MBE
Telamon Engineering	Civil Engineering; Surveying (Land & Aerial); Utilities & Power Services; CAD	8.00%	\$2,556,226	WBE
	<b>Total</b>	<b>21.00%</b>	<b>\$6,710,017</b>	

On June 26, 2017, CMD issued a memorandum determining the Port's selection process for the Planning, Engineering, and Environmental Services RFP was compliant with the provisions of the City's LBE Ordinance.

### FUNDING & COST CONTROLS

Port staff proposes a contract award to CH2M in the amount of \$36,349,740 and authorization for staff to increase the contract amount for unanticipated contingencies by an additional \$3,634,974 (10% of \$36,349,740) for a total contract authorization not to exceed \$39,984,714. The proposed contract term is ten years with the option to extend the

<sup>1</sup> Omits \$4.4 million "Emergency Projects", which are as-needed and will be tracked separately by CMD

term for one additional year at the Port's sole discretion. Table 3, below, details the proposed funding by project phase.

**Table 3: Contract Phases & Budget**

<b>Phase</b>	<b>Budget</b>
Phase I - Planning	\$ 10,239,424
Phase II - Design/Entitlements	\$ 18,505,154
Phase III - Construction Management	\$ 7,605,162
<b>Subtotal - All Phases</b>	<b>\$ 36,349,740</b>
10% Contingency	\$ 3,634,974
<b>Total Contract Authorization Request</b>	<b>\$ 39,984,714</b>

The proposed contract services will be partially funded by the CPO-756 Seawall and Marginal Wharf Repair Project in the amount of \$6,300,000. To date, the project has received \$9,600,000 in funding through a combination of the General Fund, Port Capital funds, and contributions from the Municipal Transportation Agency and the Planning Department. The remaining amount will be funded by other project sources that the Port is currently pursuing, including the potential 2018 Seawall General Obligation Bond.

Port staff will implement cost controls during the contract by only authorizing the expenditure of funds related to specific phases and project tasks. No amount of the contract will be authorized in excess of available funding at any point within the project and contract term. One specific area that staff will monitor relates to Stakeholder Engagement, which may have overlapping scope with the Port's Seawall Resiliency Project Communications Contract to Civic Edge, which was approved by the Port Commission on May 23, 2017 through Resolution No. 17-24. Staff will work closely with CH2M and Civic Edge to balance scope of contracts and avoid duplication of services.

Separately the Port Commission awarded Civic Edge Consulting (CEC) to lead all communications, public relations, marketing and advertising, and community engagement through the Seawall Communications Contract for the Seawall Resiliency Project. This Seawall Communications Contract includes community planning work tasks that will be needed to support the CH2M consultant team in its scope to develop Seawall improvement concepts. The work from both contracts will be issued through individual contract service orders (CSO); therefore, the Port's Communications Division, led by Renée Dunn Martin, will manage the work to ensure that redundancies do not exist in the communications work between the two contracts.

CH2M chose CEC in the Seawall Engineering Contract to provide community planning work if additional needs extend beyond the scope of the Seawall Communications Contract, to engage stakeholders in the engineering and technical studies for the Seawall improvements. Communications Director Renée Dunn Martin will coordinate directly with Steven Reel, Manager of the CH2M HILL Contract, to ensure there are no redundancies in the community planning work tasks performed by CEC.



## SCHEDULE

The planned Project schedule is:

<u>Activity</u>	<u>Target Date</u>
Port Commission Request to Award Contract	August 8, 2017
Board of Supervisors Approval	September 26, 2017
Notice to Proceed	October 2, 2017
Contract Completion	October 1, 2027

## CONCLUSION

Port staff has completed the Planning, Engineering, and Environmental Services RFP evaluation and selected CH2M as the most-qualified consulting firm to provide the services described in this report. Port Staff has negotiated acceptable contract terms and conditions with CH2M for providing the contract scope of services described above, within the Port's budget and funding expectations.

Staff now requests that, subject to approval of the Board of Supervisors, the Port Commission adopt the attached resolution authorizing staff to award a contract to CH2M, in the amount of \$36,349,740 and, further authorizing staff to increase the contract amount, if needed for unanticipated contingencies, by an additional \$3,634,974 (10% of \$36,349,740) for a total contract authorization not to exceed \$39,984,714.

Prepared by: Carlos Colón, Seawall Project  
Administrator, Finance & Administration  
Division

Meghan Wallace, Finance & Procurement  
manager, Finance & Administration  
Division

For: Katharine Petrucione, Deputy Director  
Finance & Administration Division

and

Rod Iwashita, Deputy Director Engineering  
Division

### Attachments

- A: CMD LBE Pre-award Memorandum
- B: CMD Award Memorandum
- C: CH2M Ownership Change Letter

**PORT COMMISSION  
CITY AND COUNTY OF SAN FRANCISCO**

**RESOLUTION NO. 17-36**

- WHEREAS, the San Francisco Seawall is the foundation of more than three miles of San Francisco waterfront stretching from Fisherman's Wharf to Mission Creek; and
- WHEREAS, the Seawall was built over 100 years ago, and requires significant improvements in order to withstand the a major earthquake and increasing flood risk from sea level rise and climate change; and
- WHEREAS, the Port of San Francisco is undertaking the Seawall Resiliency Project to plan, design, entitle, and construct one or more Seawall improvement projects that will significantly lower earthquake safety and flood damage risks; and
- WHEREAS, to proceed with and complete the Seawall Resiliency Project, Port staff requires specialized planning, engineering, and environmental services for the Seawall Resiliency Project; and
- WHEREAS, on March 14, 2017, the Port Commission authorized staff to issue a Request for Proposals ("RFP") to solicit and select a multi-disciplinary engineering and architecture consulting team for the Seawall Resiliency Project (Port Commission Resolution 17-14); and
- WHEREAS, Port staff advertised the RFP on April 24, 2017 and received five proposals on June 2, 2017, all of which were deemed responsive to the requirements of the RFP; and
- WHEREAS, Port staff obtained approval from the Civil Service Commission on May 15, 2017, to contract with a private engineering firm for these consulting services; and
- WHEREAS, pursuant to the RFP an evaluation panel was convened to evaluate and score proposals, and upon completion of the evaluation process the City's Contract Monitoring Division and Port staff determined the highest ranked proposer is CH2M HILL Engineers, Inc.; now, therefore be it
- RESOLVED, that, subject to the approval of the Board of Supervisors, the San Francisco Port Commission hereby authorizes Port staff to award and execute a professional services agreement with CH2M Engineers, Inc., in the amount of \$36,349,740, and with a term of ten years, with an option to extend the term for one additional year in the Port's discretion; and be it further

RESOLVED, that the Port Commission also authorizes Port staff to increase the contract amount, if needed for unanticipated contingencies, by an additional \$3,634,974, for a total contract authorization not to exceed \$39,984,714; and be it further

RESOLVED, that the San Francisco Port Commission hereby authorizes Port staff to introduce legislation to the Board of Supervisors seeking authorization, pursuant to San Francisco Charter Section 9.118, to award a professional services agreement to CH2M HILL Engineers, Inc., upon the terms and conditions described above and in the accompanying staff memorandum.

*I hereby certify that the foregoing resolution was adopted by the Port Commission at its meeting of August 8, 2017.*


---

Secretary

OFFICE OF THE MAYOR  
SAN FRANCISCO



EDWIN M. LEE

TO: Angela Calvillo, Clerk of the Board of Supervisors  
FROM: *for* Mayor Edwin M. Lee   
RE: Professional Services Agreement – CH2M HILL Engineers, Inc. – Planning,  
Engineering, Environmental Services for the Seawall Resiliency Project - Not  
to Exceed \$39,984,714  
DATE: July 25, 2017

---

Attached for introduction to the Board of Supervisors is a resolution approving and authorizing the Executive Director of the Port of San Francisco to execute a professional services agreement with CH2M HILL Engineers, Inc., for planning, engineering, and environmental services for the Seawall Resiliency Project, for an amount not to exceed \$39,984,714, and a term of 10 years.

Should you have any questions, please contact Mawuli Tugbenyoh (415) 554-5168.

RECEIVED  
BOARD OF SUPERVISORS  
SAN FRANCISCO  
2017 JUL 25 PM 4:31  
*[Signature]*

**FORM SFEC-126:**  
**NOTIFICATION OF CONTRACT APPROVAL**  
(S.F. Campaign and Governmental Conduct Code § 1.126)

<b>City Elective Officer Information</b> <i>(Please print clearly.)</i>	
Name of City elective officer(s):	City elective office(s) held:
Members, Board of Supervisors	Members, Board of Supervisors

<b>Contractor Information</b> <i>(Please print clearly.)</i>		
Name of contractor: CH2M HILL Engineers, Inc.,		
<i>Please list the names of (1) members of the contractor's board of directors; (2) the contractor's chief executive officer, chief financial officer and chief operating officer; (3) any person who has an ownership of 20 percent or more in the contractor; (4) any subcontractor listed in the bid or contract; and (5) any political committee sponsored or controlled by the contractor. Use additional pages as necessary.</i>		
<b>Board of Directors:</b> Jacqueline Hinman, Malcolm Brinded, Jerry Geist, Lisa Glatch, Charles O. Holliday, Jr., W. Blakely Jeffcoat, Scott Kleinman, Gregory T. McIntyre, Antoine G. Munfakh, Georgia R. Nelson, Thomas L. Pennella, Terry A. Ruhl, Jan Walstrom, Barry L. Williams.		
<b>Chief Executive Officer:</b> Jacqueline Hinman		
<b>Chief Financial Officer:</b> Gary L. McArthur		
Subcontractors:		
Company	Name	Position
A G S Inc	Khamanehpour, Bahram	Principal Geotechnical Engineer
A G S Inc	Litle, Kenneth	Principal Civil Engineer
A G S Inc	Tsao, James	Principal Structural Engineer
Arcadis	Appelbaum, Stu	USACE Feasibility Analysis
Arcadis	Atkinson, John	SME - Resiliency Flood Hazard
Arcadis	Baumy, Walter*	USACE Feasibility Analysis
Arcadis	Bosch, Lauren	Economic Assessment
Arcadis	Devick, Chris*	Key Technical Lead - Coastal Engineering
Arcadis	Dircke, Piet*	Technical Advisory - Coastal Resiliency
Arcadis	Fernandez, Edward	Flood/Coastal Resiliency Planning
Arcadis	Foster, Carly	Flood/Coastal Resiliency Planning
Arcadis	Fricke, Macy	Flood/Coastal Resiliency Planning
Arcadis	Fulks, David	Senior Civil Engineer
Arcadis	Gravenmier, Josh	Emergency Response and Recovery
Arcadis	Manguno, Rich	Economic Analysis
Arcadis	Marrone, Joe	Coastal Modeling/Engineering
Arcadis	Ohr, Andrew	MHRA
Arcadis	Pomales, Melissa*	Key Technical Lead - Project Controls
Arcadis	Project Coordinator (Arcadis)	Project Coordinator (Arcadis)
Arcadis	Roberts, Hugh	Hydrodynamic Modeling
Arcadis	Roth, Lawrence	Geotechnical Engineering/Risk Analysis
Arcadis	Staff Professional (Arcadis)	Staff Professional (Arcadis)
Arcadis	Staphorsius, John	Civil Engineering
Arcadis	Stoddard, Ryan	Civil Engineering
Arcadis	Stirm, Paul*	Multi Hazard Analysis and Delivery Lead

Arcadis	Thurson, Kelli	Resiliency Planning
Arcadis	Tschirky, Paul	Coastal Engineering
Arcadis	Welch, Wayne	Civil Engineering
Arcadis	Westerhoff, Edgar	Resiliency Planning
Arcadis	Wijsman, Peter*	Global Resiliency Expert
Civic Edge Consulting	Dulvka, Annie	Project Assistant
Civic Edge Consulting	Lauterborn, Peter	Project Manager
Civic Edge Consulting	Sunshine, Lizbet	Project Director
BAYCAT	Baycat	Baycat
Berger-Abam	Harn, Robert	Seismic Peer Review Members At-Large
C H S Consulting Group	Kluter, Andrew	Senior Transportation Planner
C H S Consulting Group	Lieberman, William	Transit Planner
C H S Consulting Group	Shao, Chi-Hsin	Traffic Engineering Principal
Carollo Engineers, Inc	Cruz, Emilio*	Carollo PIC/Technical Advisor
Carollo Engineers, Inc	Dadik, Mike	Structural/Resiliency
Carollo Engineers, Inc	Deslauriers, Sarah	Sustainability/Climate Change
Carollo Engineers, Inc	Harold, Eric	CSOs/Collection System
Carollo Engineers, Inc	Karam, Walid	Ongoing Project Integration
Carollo Engineers, Inc	Prabhakar, Pavitra	Ongoing Project Integration
Carollo Engineers, Inc	Pyle, Richard	Alternative Delivery Evaluation
Carollo Engineers, Inc	Reisinger, Dan	Seawall/CSOs
Carollo Engineers, Inc	Warriner, Michael	Construction Management
CMG Landscape Architecture	Conger, Kevin*	Director
CMG Landscape Architecture	Conrad, Pamela	Project Landscape Architect
CMG Landscape Architecture	Guillard, Chris	Principal Designer
CMG Landscape Architecture	Moss, Willett	Principal Designer
CMG Landscape Architecture	Simon, Cathy*	Urban Design and Planning
CMG Landscape Architecture	Staff Professional (CMG)	Staff Professional (CMG)
FUGRO	Chen, Weiyu	Earthquake Vulnerability Assessment
FUGRO	Dean, Cornelia	Site Exploration and Characterization
FUGRO	Fernandez, Alfredo	Seismic Hazard Assessment
FUGRO	Herlache, Andy	Geotechnical Retrofit Solutions
FUGRO	Project Professional (Fugro)	Project Professional (Fugro)
FUGRO	Senior Professional (Fugro)	Senior Professional (Fugro)
FUGRO	Staff Professional (Fugro)	Staff Professional (Fugro)
FUGRO	Travasrou, Thaleia*	Lead Geotechnical Engineer
FUGRO	Ugalde, Jose	Earthquake Vulnerability Assessment
FUGRO	Wood, Ray	Site Exploration and Characterization
GEHL Architects	Bela, John	Public Life Research & Community Engagement
GEHL Architects	Merker, Blaine	Public Life Research & Community Engagement
Geotechnical Consultants Inc	Agnew, Dustin	Staff Engineer
Geotechnical Consultants Inc	Bray, Jonathan	Seismic Peer Review Members At-Large
Geotechnical Consultants Inc	Khatri, Kavin	Staff Engineer
Geotechnical Consultants Inc	Neelakantan, Neel	Principal/Geotechnical Engineer
Geotechnical Consultants Inc	Patterson, Aurie	Senior Geologist
Geotechnical Consultants Inc	Peterson, Mark	Senior Engineer

Geotechnical Consultants Inc	Sastry Jayavani	Project Assistant
Geotechnical Consultants Inc	Seibold, Joe	Senior Geotechnical Engineer
Geotechnical Consultants Inc	Telson, Tanya	Project Assistant
Geotechnical Consultants Inc	Thurber, James	Lead Geologist
Geotechnical Consultants Inc	Vahdani, Shahriar	Seismic Specialist
Geotechnical Consultants Inc	Van Hoff, Deron	Senior Geotechnical Engineer
Hollins Consulting Inc	Berry, Margaret	Program Controls
Hollins Consulting Inc	Cooper, Derrick	Utility/Interagency Coordination
Hollins Consulting Inc	Futnani, Kali	Utility/Interagency Coordination
Hollins Consulting Inc	Hollins, Guy*	Utility/Interagency Coordination
Hollins Consulting Inc	McCrimmon, Catherine	Utility/Interagency Coordination
HR&A Advisors, Inc.	Barthakur, Amitabh	Partner in Charge
HR&A Advisors, Inc.	Jang, Brittany	Analyst
HR&A Advisors, Inc.	Moss, Olivia	Project Manager
HR&A Advisors, Inc.	Project Professional (HR&A)	Project Professional (HR&A)
HR&A Advisors, Inc.	Sand, Pamela	Director
HR&A Advisors, Inc.	Silvern, Paul	Senior Advisor
HR&A Advisors, Inc.	Torres Springer, Jamie	Senior Advisor
ICF Jones & Stokes, Inc.	AQ / Noise Analyst (ICF)	AQ / Noise Analyst (ICF)
ICF Jones & Stokes, Inc.	Archaeologist (ICF)	Archaeologist (ICF)
ICF Jones & Stokes, Inc.	Beckstrom, Chad	Port Environ Compliance Sr. Advisor
ICF Jones & Stokes, Inc.	Clendenin, Gary	Geo and Hazmat
ICF Jones & Stokes, Inc.	Document Production (ICF)	Document Production (ICF)
ICF Jones & Stokes, Inc.	Efner, Erin	CEQA Task Lead
ICF Jones & Stokes, Inc.	Elder, Tait	Archeology
ICF Jones & Stokes, Inc.	Elliott, Chris	Corps Environ Compliance Sr. Advisor
ICF Jones & Stokes, Inc.	Envtl Planner (ICF)	Envtl Planner (ICF)
ICF Jones & Stokes, Inc.	GIS Analyst (ICF)	GIS Analyst (ICF)
ICF Jones & Stokes, Inc.	Hatcher, Shannon	Air Quality/GHG
ICF Jones & Stokes, Inc.	Historian (ICF)	Historian (ICF)
ICF Jones & Stokes, Inc.	Huber, Anne	Hydrology/Water Quality
ICF Jones & Stokes, Inc.	Lassell, Susan	Cultural (built) Resources
ICF Jones & Stokes, Inc.	Mitchell, Bill	Bio
ICF Jones & Stokes, Inc.	Mozumder, Kailash	Bio
ICF Jones & Stokes, Inc.	Permitting Support (ICF)	Permitting Support (ICF)
ICF Jones & Stokes, Inc.	Senior Advisor (ICF)	Senior Advisor (ICF)
ICF Jones & Stokes, Inc.	Senior Noise Analyst (ICF)	Senior Noise Analyst (ICF)
ICF Jones & Stokes, Inc.	Senior Technical Specialist (ICF)	Senior Technical Specialist (ICF)
ICF Jones & Stokes, Inc.	Stock, Jen	Aesthetics/Visual Quality
ICF Jones & Stokes, Inc.	Trisal, Shilpa	Enviro. Justice/Socioeconomic
ICF Jones & Stokes, Inc.	Walter, Rich*	Lead Environmental Engineer
Kearns & West	Associate (Kearns & West)	Associate (Kearns & West)
Kearns & West	Cross, Ellen	Vice President
Kearns & West	De Cuir, Nora	Director
Kearns & West	Gettleman, Ben	Senior Director
Kearns & West	Poncelete, Eric	Principal

Kearns & West	Project Coordinator (Kearns & West)	Project Coordinator (Kearns & West)
Kearns & West	Rugani, Kelsey	Senior Associate
Keyster Marston Associates	Kern, Debbie	Economic & Fiscal Analysis
RDJ Enterprises LLC	Dilger, Rosemary	Public Relations
RDJ Enterprises LLC	Hopkins, Vivian Ann	Meeting Facilitation Community Engagement
RDJ Enterprises LLC	Jones, Rudolph Dwayne	LBE Coordination
Saylor Consulting Group	Ritchie, Ed	Senior Infrastructure Estimator
Saylor Consulting Group	Saylor, Brad	Principal Estimator
Sedway Consulting Inc	Herman, Amy	Sr Project Manager
Sedway Consulting Inc	Sedway, Lynn	Principal
Sedway Consulting Inc	Smitheram, Mary	Sr Project Manager
Simpson, Gumpertz & Heger	Bruin, William M.	Structural Engineer
Simpson, Gumpertz & Heger	Iversen, Rune	Marine Engineer
Simpson, Gumpertz & Heger	Johnson, Gayle	Structural Engineer
Simpson, Gumpertz & Heger	Lewis, Aaron	Structural Engineer
Simpson, Gumpertz & Heger	Moore, Kevin S.	Structural Engineer
Square One Productions	Carroll, Nichola	Production Artist
Square One Productions	Lin, Angela	Project Manager
Structus Inc	Chang, Fu-Lien (Henry)	Project Manager
Structus Inc	Chappell, Don	QA/QC Manager
Structus Inc	Surjana, Burhan	Project Engineer
Structus Inc	Yu, Peter	Structural EOR
TEF Design	Cooper, Paul	Project Manager
TEF Design	Rostami, Maryam	Project Designer
TEF Design	Tom, Douglas	Managing Principal
TEF Design	Verzhbinsky, Alyosha	Consulting Principal
TEF Design	Vithalani, Viral	Project Architect
TEF Design	Wolfram, Andrew*	Project Principal/Design Principal
Telamon Engineering	Chan, Mennor	Project Manager
Telamon Engineering	Chan, Stephen	Contract Support
Telamon Engineering	Decosta, Paul	Party Chief - Field
Telamon Engineering	Kwok, Wayne	Project Coordinator
Telamon Engineering	LyLy Lami	Civil Engineer 1
Telamon Engineering	Mak, Toni	Project Coordinator
Telamon Engineering	Munoz, Amador	Field Survey Crew
Telamon Engineering	Nguyen, Khang	CAD Tech
Telamon Engineering	Rodriguiz, Ray	Utility Locator
Telamon Engineering	Salinas, Veronica	Field Survey Crew
Telamon Engineering	Tran, Joe	CAD Tech
Telamon Engineering	Woods, Earl	Survey Manager
Telamon Engineering	Zuuring, Doug	Senior Engineer
WRA, Inc	Bello, Nate	Mitigation Specialist
WRA, Inc	Chase, Daniel	Fisheries Biologist
WRA, Inc	Kalnins, Mark	Regulatory Permitting Specialist
WRA, Inc	Knecht, Ellie	Regulatory Permitting Specialist - BCDC



WRA, Inc	Lazarotti, Leslie	Regulatory Permitting Specialist
WRA, Inc	Salvaggio, George	Landscape Architect
WRA, Inc	Semion, Justin	Aquatic Biologist/Permitting
Contractor address: <b>CH2M - Ports &amp; Maritime Group; 150 Spear Street, Suite 750; San Francisco, CA 94105</b>		
Date that contract was approved:		Amount of contract: <b>For an amount not to exceed \$39,984,714</b>
Describe the nature of the contract that was approved: <b>Professional Services contract for the planning, engineering, and environmental services for the Seawall Resiliency Project</b>		
Comments:		

This contract was approved by (check applicable):

the City elective officer(s) identified on this form

a board on which the City elective officer(s) serves San Francisco Board of Supervisors

Print Name of Board

the board of a state agency (Health Authority, Housing Authority Commission, Industrial Development Authority Board, Parking Authority, Relocation Appeals Board, and Local Workforce Investment Board) on which an appointee of the City elective officer(s) identified on this form sits

Print Name of Board

<b>Filer Information</b> <i>(Please print clearly.)</i>	
Name of filer: Angela Calvillo, Clerk of the Board	Contact telephone number: (415) 554-5184
Address: City Hall, Room 244, 1 Dr. Carlton B. Goodlett Pl., San Francisco, CA 94102	E-mail: Board.of.Supervisors@sfgov.org

Signature of City Elective Officer (if submitted by City elective officer)

Date Signed

Signature of Board Secretary or Clerk (if submitted by Board Secretary or Clerk)

Date Signed

S:\ALL FORMS\Campaign Finance\SFEC - 126\ Form SFEC-126 Notification of Contract Approval 9.14.doc

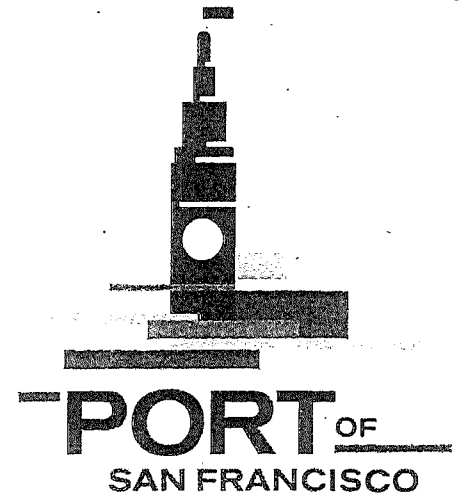


File # 170874  
Received in Committee  
9/7/17  
fn.

# REQUEST FOR AUTHORIZATION SEAWALL PLANNING, ENGINEERING, AND ENVIRONMENTAL SERVICES RFP

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Budget and Finance Committee Meeting, File No. 170874  
September 7, 2017.

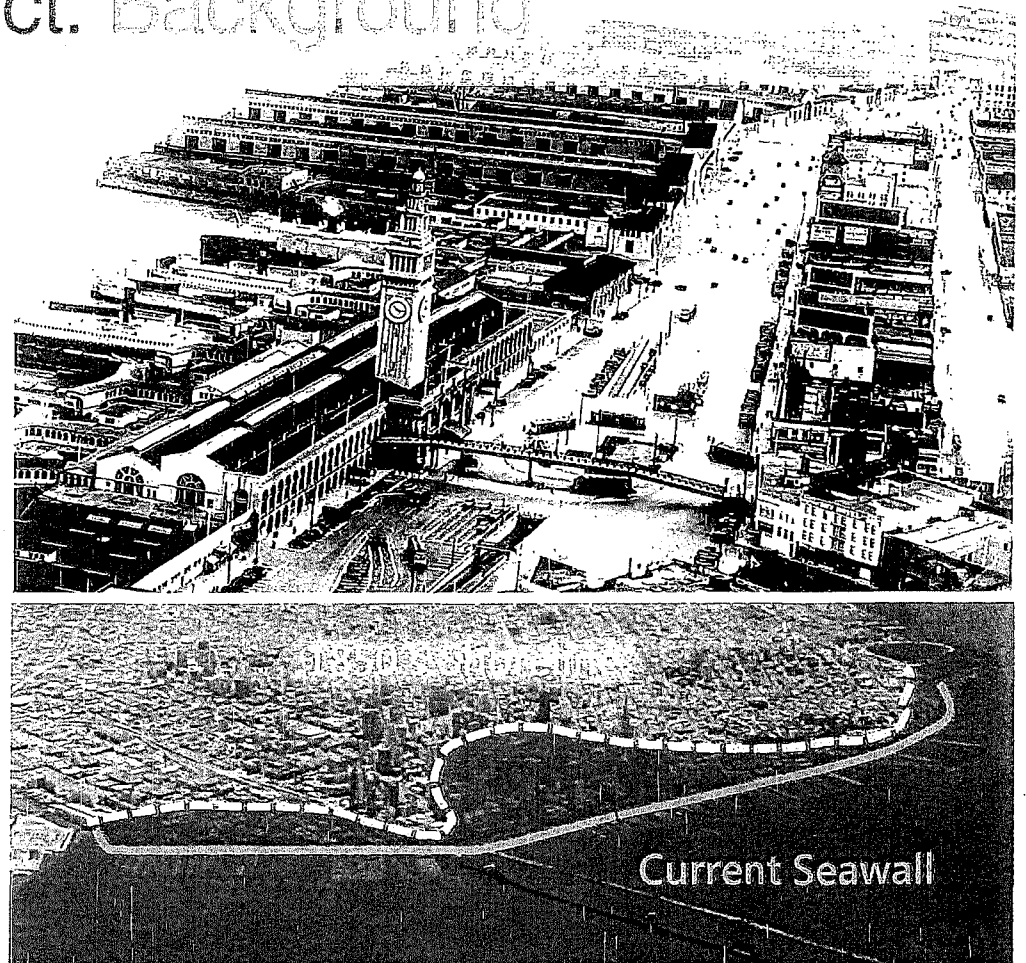


# Seawall Resiliency Project: Background

## Historic Seawall

- **1863** Board of State Harbor Commissioners was formed with the intent to transform the waterfront into a center of maritime activity for the region
- **1878** start of Seawall construction
- **1916** Seawall construction completed
- **Foundation for over 3 miles of San Francisco waterfront** stretching from Fisherman's Wharf to Mission Creek

542



# Seawall Resiliency Project: Background

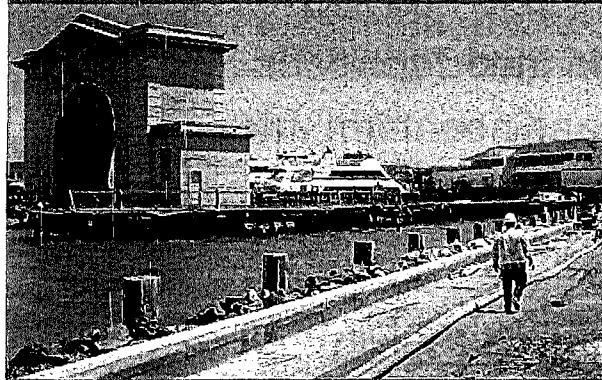
## Today's Seawall

- Supports historic piers, wharves, and buildings
- Underpins major tourist destinations on the waterfront
- Serves as a critical emergency response and recovery area
- Supports BART, Muni, and ferry transportation and utility networks
- Provides flood protection to downtown San Francisco

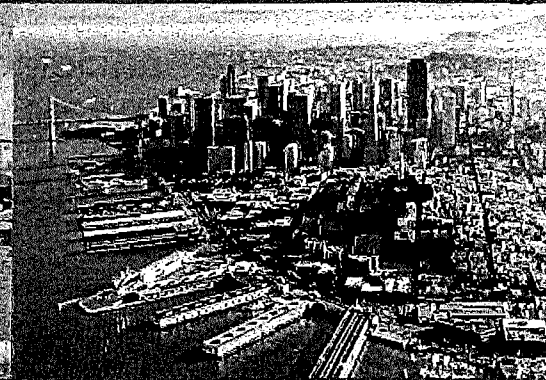


24 Million Visitors

Transportation Infrastructure



Utility Infrastructure



Embarcadero Historic District

# Seawall Resiliency Project: Project Mission

## Project Mission

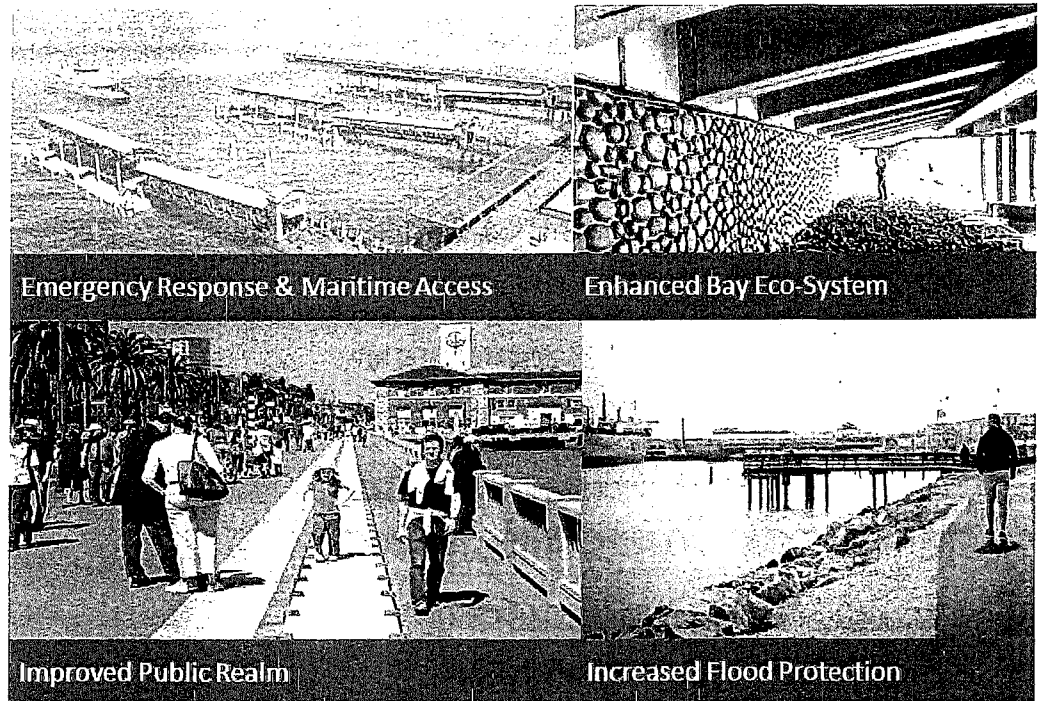
- Develop a program to repair or replace the Seawall and design and construct the most critical improvements.

## 544 Threats

- Advanced age and deteriorated conditions
- Earthquake vulnerability and near term risk
- Coastal flooding due to extreme storms and sea level rise

## Estimated Cost (Conceptual Level)

- Full replacement, 3 miles: Up to \$5 billion
- Initial critical upgrades: \$ 500 million (scope to be determined)



# Seawall Resiliency Project: Consultant Support

## Contract Authorization Request

- **Firm:** CH2M HILL Engineers, Inc.
- **Scope:** Planning, engineering, and environmental services
- **Contract authorization:** \$39,984,714
  - Contract amount of \$36,349,740, plus
  - 10% contingency of \$3,634,974
- **Term:** 10 years



## Selected Firm: CH2M HILL Engineers, Inc.

### Team

- CH2M HILL Engineers, Inc.
- Twenty four subcontractors, including twelve LBE firms

### Local Business Participation

- Meets CMD requirement of 21% LBE subcontractor participation

### Relevant Experience

- New York City Dept. of Design and Construction (\$8.8M) – East Side Coastal Resiliency
- Mississippi State Port Authority (\$27M) – Port of Gulfport Restoration Program
- City of Seattle (\$2M) – Seattle Waterfront Redevelopment
- Port of Long Beach (\$13.5M) – Port of Long Beach Fire Facilities Program



# CH2M HILL: Proposed Contract Budget

EXPENSES BY PHASE			SOURCES				
Phase	Description	Budget	Port	MTA/ Planning	General Fund	Proposed GO Bond	Total Sources
Phase I	Planning	\$ 10,239,424	\$2,900,000	\$2,000,000	\$ 4,000,000	\$ 1,339,424	\$10,239,424
Phase II	Environmental & Final Design	\$ 18,505,154			\$(4,000,000)	\$ 22,505,154	\$18,505,154
Phase III	Construction Support	\$ 7,605,162	\$ -	\$ -	\$ -	\$ 7,605,162	\$ 7,605,162
<b>Subtotal - All Phases</b>		<b>\$ 36,349,740</b>	<b>\$2,900,000</b>	<b>\$2,000,000</b>	<b>\$ -</b>	<b>\$ 31,449,740</b>	<b>\$36,349,740</b>
Phases I-III	10% Contingency	\$ 3,634,974	\$ -	\$ -	\$ -	\$ 3,634,974	\$ 3,634,974
<b>Total Contract Authorization Request</b>		<b>\$ 39,984,714</b>	<b>\$2,900,000</b>	<b>\$2,000,000</b>	<b>\$ -</b>	<b>\$ 35,084,714</b>	<b>\$39,984,714</b>

## CH2M HILL: Potential Merger

Jacobs Engineering Group, Inc.

- Established in 1947 in Pasadena, CA – moved to Texas in October 2016

### Process & Considerations

- The proposed merger is subject to vetting by both firms and regulatory and shareholder approval
- If the approval process is successful, the potential merger would not take place until the first quarter of 2018, and until then, both companies will continue to operate as separate companies
- SF Administrative Code Section 12X prohibits the City from entering into contracts with firms that are headquartered in states with anti-LGBTQ laws or where any of the work will be performed in such a state, including Texas as of September 1, 2017
- While the proposed contract award to CH2M (headquartered in Colorado) would not violate Section 12X, the following language will be added to the contract:
  - **“In the spirit of San Francisco Administrative Code Section 12X.5, Contractor will make reasonable and good faith efforts to refrain from performing any work in any state that is on the Covered State List as designated by Section 12X.3 of the San Francisco Administrative Code.”**

# Budget & Legislative Analyst Report: Recommendations

## Budget & Legislation Analyst

- Amend the proposed resolution to delete the language on page 1, lines 7 and 8 regarding one one-year option to extend the term of the proposed agreement.
- Approve the proposed resolution as amended.

## Port

- Agrees with the recommendations

