

**PORT OF TACOMA
TACOMA, WASHINGTON
2021 PIER REPAIRS (PILE CRACKS, SPALL REPAIRS
AND MOORING COATING) - EB1, WUT AND PIER 3**

PROJECT NO. 201130.01 | 201130.02 | 201130.03

CONTRACT NO. 071569

**Thais Howard, PE
Director, Engineering**

**Brett Ozolin, PE
Project Manager**

END OF SECTION

The undersigned Engineer of Record hereby certifies that the Technical Specifications for the following portions of this project were written by me, or under my direct supervision, and that I am duly registered under the laws of the State of Washington, and hereby affix my Professional Seal and signature.

Those Sections prepared under my direct supervision and being certified by my seal and signature below are as follows:

<u>SEAL & SIGNATURE</u>	<u>SECTION(S)</u>
	05 50 00 - Metal Fabrication 09 96 10 - Coating Repairs 35 62 21 - HPC Concrete Repair 35 62 26 - Concrete Pile Crack Repairs with Surface-Applied Epoxy

END OF SECTION

PROCUREMENT AND CONTRACTING REQUIREMENTS

DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS

- 00 01 01 - Project Title Page
- 00 01 07 - Seals Page
- 00 01 10 - Table of Contents
- 00 01 15 - List of Drawing Sheets
- 00 11 13 - Advertisement for Bids
- 00 21 00 - Instructions to Bidders
- 00 26 00 - Substitution Procedures
- 00 31 00 - Available Project Information
- 00 31 26 - Existing Hazardous Material Information
- 00 41 00 - Bid Form
- 00 43 13 - Bid Security Form
- 00 45 13 - Responsibility Detail Form
- 00 52 00 - Agreement Form
- 00 61 13.13 - Performance Bond
- 00 61 13.16 - Payment Bond
- 00 61 23 - Retainage Bond
- 00 72 00 - General Conditions
- 00 73 16 - Insurance Requirements
- 00 73 46 - Washington State Prevailing Wage Rates
- 00 73 63 - Security Requirements

SPECIFICATIONS

DIVISION 01 -- GENERAL REQUIREMENTS

- 01 10 00 - Summary
- 01 14 00 - Work Restrictions
- 01 20 00 - Price and Payment Procedures
- 01 31 23 - Web-based Construction Management
- 01 32 16 - Construction Progress Schedule
- 01 33 00 - Submittal Procedures
- 01 35 29 - Health, Safety, and Emergency Response Procedures
- 01 35 43.13 - Hazardous Materials Handling Procedure
- 01 35 47 - Air and Noise Control Procedures
- 01 41 00 - Regulatory Requirements

- 01 42 19 - Reference Standards
- 01 45 00 - Quality Control
- 01 50 00 - Temporary Facilities and Controls
- 01 55 00 - Vehicular Access and Parking
- 01 57 13 - TESC and Project SWPPP
- 01 60 00 - Product Requirements
- 01 74 13 - Construction Cleaning
- 01 74 19 - Construction Waste Management and Disposal
- 01 77 00 - Closeout Procedures

DIVISION 05 -- METALS

- 05 50 00 - Metal Fabrications

DIVISION 09 -- FINISHES

- 09 96 10 - Coating Repairs (Not In Contract)

DIVISION 35 -- WATERWAY AND MARINE CONSTRUCTION

- 35 62 21 - HPC Concrete Repair

- 35 62 26 - Concrete Pile Crack Repairs with Surface-Applied Epoxy

APPENDICES

Appendix A - Port of Tacoma Construction SWPP Short Form

Appendix B - Phase 1 Construction Restart COVID-19 Job Site Requirements

Appendix C - Programmatic Pile Repair Permit Package

C.1 - Section 401 Water Quality Certification: Water Quality Certification Order No. 15952 for Corps Public Notice No. NWS-2011-0089-WRD

C.2 - Shoreline Substantial Development Permit Exemption File No. LU18-0303 - POT Programmatic Pile Repair Project

C.3 - Corps of Engineers - NWS-2011-0089-WRD Port of Tacoma Programmatic Piling Repair

C.4 - WDFW - Hydraulic Project Approval 2021-6-79+01

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Contract Drawings: The following drawings are a part of the Contract Documents:

Sheet No.	Drawing Title
T1.0	Cover Sheet & Drawing Index
G1.0	General Notes & Abbreviations
G2.0	EB 1 Terminal - Overall Plan
G3.0	Husky Terminal - Overall Plan
G4.0	WUT Terminal - Overall Plan
S1.0	EB1 Wharf - Repair Plan (1 of 2)
S2.0	EB1 Wharf - Repair Plan (2 of 2)
S3.0	Pier 3 Wharf - Repair Plan
S4.0	WUT Wharf - Bollard Recoating Plan & Details
S5.0	WUT Wharf - Pile Cap Repair Plan
S6.0	Edge Beam and Pile Cap Repair Notes & Table
S7.0	Edge Beam and Pile Cap Repair Details (1 of 2)
S8.0	Edge Beam and Pile Cap Repair Details (2 of 2)
S9.0	Pile Repair Details & Table

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

**2021 PIER REPAIRS (PILE CRACKS, SPALL REPAIRS AND MOORING COATING) - EB1, WUT AND
PIER 3**

PROJECT NO. 201130.01 | 201130.02 | 201130.03 | CONTRACT NO. 071569

Scope of Work:	<p>The Work required for this Project includes:</p> <p>Materials, labor and equipment as necessary to complete five concrete pile cap/edge beam spall repairs with anodes and concrete pile crack repairs with surface-applied epoxy. The work includes three Port facilities. Work shall be tracked and invoiced per facility. The Work includes mobilization/demobilization and project administration necessary to execute the Work and identified by project site. All work shall be done in accordance with project Drawings, Specifications and associated programmatic permits. The work does NOT include bollard recoating which shall be completed under a separate contract.</p>
Bid Estimate:	Estimated cost range is \$100,000 to \$120,000, plus Washington State Sales Tax (WSST).
Sealed Bid Date/ Time/Location:	Bids will be received at the Front Reception Desk, Port Administration Office, One Sitzum Plaza, Tacoma, Washington 98421 until 11:00 A.M. on November 10, 2021 , at which time they will be publicly opened and read aloud and the apparent low bid will be determined.
Bid Security:	Each Bid must be accompanied by a Bid security in an amount equal to five (5) percent of the Base Bid in a form allowed by the Instructions to Bidders.
Contact Information:	Any questions to the Port may be emailed to procurement@portoftacoma.com . No oral responses will be binding by the Port.
	Questions will not be accepted after seven (7) days prior to the Bid Date.
Bidding Documents:	Plans, Specifications, Addenda, and Plan Holders List for this Project are available on-line through The Port of Tacoma's Website portoftacoma.com . Click on "Contracts," "Procurement," and then the Procurement Number 071569. Bidders must subscribe to the Holder's List on the right hand side of the screen in order to receive automatic email notification of future addenda and to be placed on the Holder's List.
	Contact procurement@portoftacoma.com with questions. Holder's Lists will be updated regularly. Additional Instructions available in Section 00 21 00 - Instructions to Bidders.

Public Works Training Requirements: Effective July 1, 2019, all businesses are required to have training before bidding on public works projects and prevailing wage under RCW 39.04.359 and RCW 39.12, or is on the list of exempt businesses maintained by the Department of Labor and Industries. The bidder must designate a person or persons to be trained on these requirements. The training will be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the Department of Labor and Industries.

Please refer to Labor and Industries' web site (https://www.lni.wa.gov/TradesLicensing/PrevWage/Contractors/Training.asp?utm_medium=email&utm_source=govdelivery) for more information and training dates, requirements, and exemptions. Failure to attend this training could result in a determination of "not responsible" and the bidder not being awarded a public works contract.

END OF SECTION

PART 1 - SUMMARY

1.01 DEFINITIONS

All definitions set forth in the Agreement, the General Conditions of the Contract for Construction, and in other Contract Documents are applicable to the Bidding Documents.

- A. "Addenda" are written or graphic instruments issued prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections. The contents of an Addendum are issued in no particular order and therefore should be carefully and completely reviewed.
- B. An "Additive Bid" (or "Additive") is an amount stated in the Bid to add specified features of the Work.
- C. An "Apprentice" is a worker for whom an apprenticeship agreement has been registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-05).
- D. "Award" means the formal decision by the Port of Tacoma ("Port") notifying a Responsible Bidder with the lowest responsive Bid of the Port's acceptance of their Bid and intent to enter into a Contract with the Bidder.
- E. The "Award Requirements" include the statutory requirements as a condition precedent to Award.
- F. The "Base Bid" is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.
- G. A "Bid" is a complete and properly signed proposal to do the Work, submitted in accordance with the Bidding Documents, for the sums therein stipulated and supported by any data called for by the Bidding Documents.
- H. The "Bid Date" is the day and hour specified in the Bidding Documents, as may be changed through an Addendum, by which Bidders are required to submit Bids to the Port.
- I. The "Bid Form" is the form(s) included with the Bidding Documents, with Specification Section 00 41 00, through which a Bidder submits a Bid.
- J. A "Bidder" is a person or entity who submits a Bid.
- K. The "Bidding Documents" include the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, any other sample bidding and contract forms, including those provided by reference, the Bid security, and the proposed Contract Documents, including any Addenda issued prior to the Bid Date.
- L. The "Contract Documents" proposed for the Work consist of the Agreement, the General Conditions of the Contract (as well as any Supplemental, Special, or other conditions included in the Project Manual), the Drawings, the Specifications, and all Addenda issued prior to, and all modifications issued after, execution of the Contract.
- M. A "Sub-Bidder" is a person or entity of any tier who submits a bid or proposal to or through the Bidder for materials, equipment or labor for a portion of the Work.

1.02 BIDDER'S REPRESENTATIONS

By making its Bid, each Bidder represents that:

- A. **BIDDING DOCUMENTS.** The Bidder has read and understands the Bidding Documents, and its Bid is made in accordance with them.
- B. **BASIS.** Its Bid is based upon the materials, systems, services, and equipment required by the Bidding Documents, and is made without exception.
- C. **EXAMINATION.** The Bidder has carefully examined and understands the Bidding Documents, the Contract Documents including, but not limited to, any liquidated damages, insurance provisions, and the Project site, including any existing buildings, it has familiarized itself with the local conditions under which the Work is to be performed, has correlated its observations with the requirements of the proposed Contract Documents, and it has satisfied itself as to the nature, location, character, quality, and quantity of the Work, the labor, materials, equipment, goods, supplies, work, services, and other items to be furnished, and all other requirements of the Contract Documents. The Bidder has also satisfied itself as to the conditions and other matters that may be encountered at the Project site or that may affect performance of the Work or the cost or difficulty thereof, including, but not limited to, those conditions and matters affecting transportation, access, disposal, handling and storage of materials, equipment and other items; availability and quality of labor, water, electric power, and utilities; availability and condition of roads; climatic conditions and seasons; physical conditions at the Project site and the surrounding locality; topography and ground surface conditions; and equipment and facilities needed preliminary to, and at all times during, the performance of the Work. The failure of the Bidder to fully acquaint itself with any applicable condition or matter shall not in any way relieve the Bidder from the responsibility for performing the Work in accordance with, and for the Contract Sum and within the Contract Time provided for in, the Contract Documents.
- D. **PROJECT MANUAL.** The Bidder has checked its copies of the Project Manual (if any) with the table of contents bound therein to ensure the Project Manual is complete.
- E. **SEPARATE WORK.** The Bidder has examined and coordinated all Drawings, Contract Documents, and Specifications with any other contracts to be awarded separately from, but in connection with, the Work being Bid upon, so that the Bidder is fully informed as to conditions affecting the Work under the Contract being Bid upon.
- F. **LICENSE REQUIREMENTS.** The Bidders and Sub-Bidders are registered and hold all licenses required by the laws of Washington, including a certificate of registration in compliance with RCW 18.27, for the performance of the Work specified in the Contract Documents.
- G. **CERTIFICATION.** The Bidder verifies under penalty of perjury that the Bidder has not have been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, or 49.52 RCW within the three (3) year period immediately preceding the Bid Date.
- H. **NO EXCEPTIONS.** Bids must be based upon the materials, systems, and equipment described and required by the Bidding Documents, without exception.

1.03 BIDDING DOCUMENTS

- A. **COPIES**
 - 1. Bidders may obtain complete sets of the Bidding Documents from The Port of Tacoma's Website www.portoftacoma.com. Click on "Contracts" then "Procurement."
 - 2. **Complete Sets.** Bidders shall use complete sets of Bidding Documents in preparing Bids and are solely responsible for obtaining updated information. The Port does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete

and/or superseded sets of Bidding Documents.

3. Conditions. The Port makes copies of the Bidding Documents available only for the purpose of obtaining Bids on the Work and does not confer a license or grant permission for any other use.
4. Legible Documents. To the extent any Drawings, Specifications, or other Bidding Documents are not legible, it is the Bidder's responsibility to obtain legible documents.

B. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

1. Format. The Contract Documents are divided into parts, divisions, and sections for convenient organization and reference. Generally, there has been no attempt to divide the Specification sections into Work performed by the various building trades, any Work by separate contractors, or any Work required for separate facilities in, or phases of the Project.
2. Duty to Notify. Bidders shall promptly notify the Port in writing of any ambiguity, inconsistency, or error that they may discover upon examination of the Bidding Documents or of the site and local conditions.
3. Products and Installation. All Bidders shall thoroughly familiarize themselves with specified products and installation procedures and submit to the Port any objections (in writing) no later than seven (7) days prior to the Bid Date. The submittal of the Bid constitutes acceptance of products and procedures specified as sufficient, adequate, and satisfactory for completion of the Contract.
4. Written Request. Bidders requiring clarification or interpretation of the Bidding Documents shall make a written email request to procurement@portoftacoma.com at least seven (7) days prior to the Bid Date.
5. Request to Modify Responsibility Criteria. No later than seven (7) days prior to the Bid Date, a potential Bidder may request in writing that the Port modify the Responsibility Criteria. The Port will evaluate the information submitted by the potential Bidder and respond before the Bid Date. If the evaluation results in a change of the Criteria, the Port will issue an Addendum identifying the new Criteria.
6. Addenda. The Bidder shall not rely on oral information provided at any pre-Bid meetings or during site visits. Verbal statements made by representatives of the Port are for informational purposes only. Any interpretation, correction, or change of the Bidding Documents will be made solely by written Addendum. Interpretations, corrections, or changes of the Bidding Documents made in any manner other than by written Addendum, including but not limited to, oral statements will not be binding, and Bidders shall not rely upon such statements, interpretations, corrections, or changes. The Port is not responsible for explanations or interpretations of the Bidding Documents other than in a written Addendum.
7. Site Visits. Any site visits are provided as a courtesy to potential Bidders to assist them in becoming familiar with the Project site conditions. However, only the Bidding Documents, including any issued Addenda, may be relied upon by Bidders.
8. Singular References. Reference in the singular to an article, device, or piece of equipment shall include as many of such articles, devices, or pieces as are indicated in the Contract Documents or as are required to complete the installation.
9. Utilities and Runs. The Bidder should assume that the exact locations of any underground or hidden utilities, underground fuel tanks, and plumbing and electrical runs may be somewhat different from any location indicated in the surveys or Contract Documents.

C. SUBSTITUTIONS

1. For substitutions during bidding, refer to Section 00 26 00 – Substitution Procedures.

D. ADDENDA

1. Distribution. All Addenda will be written and will be made available on the Port's website or any other source specified by the Port for the Project.
2. Copies. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.
3. Verification and Acknowledgment of Receipt. Prior to submitting a Bid, each Bidder shall ascertain that it has received all Addenda issued. Each Bidder shall acknowledge its receipt and consideration of all Addenda in its Bid.

1.04 BIDDING PROCEDURE

A. FORM AND STYLE OF BIDS

1. Form. Bids (including required attachments) shall be submitted on forms identical to the Bid Form included with the Bidding Documents. No oral, email, or telephonic responses or modifications will be considered.
2. Entries on the Bid Form. All blanks on the Bid Form shall be filled in by typewriter, printer, or manually in ink.
3. Figures. All sums shall be expressed in figures, not words. Portions of the Bid Form may require the addition or multiplication of component bids to a total or the identification of component amounts within a total. In case of discrepancy between unit prices listed and their sum(s), the unit prices listed shall govern (rather than the sum).
4. Initial Changes. Any interlineation, alteration, or erasure shall be initiated by an authorized representative of the Bidder.
5. Bid Breakdown. The Bid Form may contain, for the Port's accounting purposes only, a breakdown of some or all of the components included in the Base Bid.
 - a. For lump-sum Bids, the total Contract Sum shall be submitted.
 - b. For unit-price Bids, a price shall be submitted for each item of the Work, an extension thereof, and, if requested, the total Contract Sum.
6. No Conditions. The Bidder shall make no conditions or stipulations on the Bid Form, nor qualify its Bid in any manner.
7. Identity of Bidder. The Bidder shall include in the specified location on the Bid Form, the legal name of the Bidder and, if requested, a description of the Bidder as a sole proprietor, a partnership, a joint venture, a corporation, or another described form of legal entity. The Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. The Port verifies signature authority on the Labor and Industries website <https://fortress.wa.gov/lni/bbip/Search.aspx> under the contractor registration business owner information. If the business owner information is not current, the Bidder shall show proof of authority to sign at the request of the Port. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder
8. Bid Amounts Do Not Include Sales Tax. The Work to be performed constitutes a "retail sale" as this term is defined in RCW 82.04.050. Thus, the Base Bid amount shall include in the sum stated all taxes imposed by law, EXCEPT WASHINGTON STATE AND LOCAL SALES TAX due on the Base Bid. The engaged Contractor will pay retail sales tax on all

consumables used during the performance of the Work and on all items that are not incorporated into the final Work; this tax shall be included in the Base Bid price and in any other prices set forth on the Bid Form. The Port will pay state and local retail sales tax due on each progress payment and final payment to the engaged Contractor for transmittal by the Contractor to the Washington State Department of Revenue or to the applicable local government.

B. BID SECURITY

1. **Purpose and Procedure.** Each Bid shall be accompanied by Bid security payable to the Port in the form required by the Bidding Documents and equal to five (5) percent of the Base Bid only (i.e., not including any Alternates or Unit Prices). The Bid security constitutes a pledge by the Bidder to the Port that the Bidder will enter into the Contract with the Port in the form provided, in a timely manner, and on the terms stated in its Bid, and will furnish in a timely manner, the payment and performance bonds, certificates of insurance, and all other documents required in the Contract Documents. Should the Bidder fail or refuse to enter into the Contract or fail to furnish such documents, the amount of the Bid security shall be forfeited to the Port as liquidated damages, not as a penalty. By submitting a Bid, each Bidder represents and agrees that the Bid security, if forfeited, is a reasonable prediction on the Bid Date of future damages to the Port. Failure of the Bidder to provide Bid Security as required shall render the bid non-responsive.
2. **Form.** The Bid security shall be in the form of a certified or bank cashier's check payable to the Port or a Bid bond executed by a bonding company reasonably acceptable to the Port, licensed in the State of Washington, registered with the Washington State Insurance Commissioner, possess an A.M. Best rating of "A-," Fiscal Size Category (FSC) six (6) or better, and be authorized by the U.S. Department of the Treasury. The Bid security shall be signed by the person or persons legally authorized to bind the Bidder. Bid bonds shall be submitted using the form included with the Bidding Documents.
3. **Retaining Bid Security.** The Port will have the right to retain the Bid security of Bidders to whom an Award is being considered until the earliest of either: (a) mutual execution of the Contract, and the Port's receipt of payment and performance bonds, (b) the specified time has elapsed so that Bids may be withdrawn, or (c) when all Bids have been rejected.
4. **Return of Bid Security.** Within sixty (60) days after the Bid Date, the Port will release or return Bid securities to Bidders whose Bids are not to be further considered in awarding the Contract. Bid securities of the three apparent low Bidders will be held until the Contract has been finally executed, after which all un-forfeited Bid securities will be returned. Bid security may be returned in the form provided or by separate payment.

C. SUBMISSION OF BIDS

1. **Procedure.** The Bid, the Bid security, and other documents required to be submitted with the Bid, shall be enclosed in a sealed envelope identified with the Project name and number and the Bidder's name and address. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face of the mailing envelope.
 - a. If a Bid is mailed, it shall be addressed to the Port of Tacoma, Contracts Department, 1 Sitcum Plaza, Tacoma, WA 98421.
 - b. If a Bid is delivered, it shall be delivered to the Front Reception Desk, Port of Tacoma, 1 Sitcum Plaza, Tacoma, WA 98421.
 - c. The time stamp clock at the Front Reception Desk at 1 Sitcum Plaza is the Port's official clock.

2. **Deposit.** Bids shall be deposited at the designated location prior to the Bid Date indicated in the Advertisement or Invitation to Bid, or any extension thereof made by Addendum. Bids received after the Bid Date and time specified shall be returned without consideration at the discretion of the Port, or rejected at the time of receipt.
3. **Delivery.** The Bidder assumes full responsibility for timely delivery at the location designated for receipt of Bids.
4. **Form.** Oral, facsimile, telephonic, electronic, or email Bids are invalid and will not be considered.

D. MODIFICATION OR WITHDRAWAL OF BID

1. **After the Bid Date.** A Bid may not be modified, withdrawn, or canceled by the Bidder during a ninety (90) day period following the Bid Date, and each Bidder so agrees by virtue of submitting its Bid.
2. **Before the Bid Date.** Prior to the Bid Date, any Bid submitted may be modified or withdrawn only by notice to the party receiving Bids at the place designated for receipt of Bids. The notice shall be in writing, with the signature of the Bidder, and shall be worded so as not to reveal the amount of the original Bid. Email notice will not be accepted. It shall be the Bidder's sole responsibility to verify that the notice has been received by the Port in time to be withdrawn before the Bid opening.
3. **Resubmittal.** Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids, provided that they are then fully in conformance with these Instructions to Bidders.
4. **Bid Security with Resubmission.** Bid security shall be in an amount sufficient for the Bid as modified or resubmitted.

E. COMMUNICATIONS

1. Communications from a Bidder related to these Instructions to Bidders must be in writing to procurement@portoftacoma.com. Communications, including but not limited to, notices and requests by Sub-Bidders shall be made through the Bidder and not directly by a Sub-Bidder to the Port.

1.05 CONSIDERATION OF BIDS

- A. OPENING OF BIDS.** Unless stated otherwise in the Advertisement or Invitation to Bid or an Addendum, the properly identified Bids received on time will be opened publicly and will be read aloud. An abstract of the Base Bids and any Alternate Bids will promptly (and generally within twenty-four (24) hours) be made available to Bidders and other interested parties.
- B. REJECTION OF BIDS.** The Port shall have the right, but not the obligation, to reject any or all Bids for any reason, or for no reason, to reject a Bid not accompanied by the required Bid security, or to reject a Bid which is in any way incomplete or irregular.
- C. BIDDING MISTAKES.** The Port will not be obligated to consider notice of claimed Bid mistakes received more than twenty-four (24) hours after the Bid Date. In accordance with Washington law, a low Bidder that claims error and fails to enter into the Contract is prohibited from Bidding on the Project if a subsequent call for Bids is made for the Project.

D. ACCEPTANCE OF BID (AWARD)

- 1. Intent to Accept.** The Port intends, but is not bound, to Award a Contract to the Responsible Bidder with the lowest responsive Bid, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Port has the right to waive any informality or irregularity in any Bid(s)

received and to accept the Bid which, in its judgment, is in its own best interests.

2. Requirements for Award. Before the Award, the lowest responsive Bidder must be deemed Responsible by the Port and must satisfy all Award Requirements.

E. BID PROTEST PROCEDURES

1. Procedure. A Bidder protesting, for any reason, the Bidding Documents, a Bidding procedure, the Port's objection to a Bidder or a person or entity proposed by the Bidder, including but not limited to, a finding of non-Responsibility, the Award of the Contract or any other aspect arising from, or relating in any way to, the Bidding, shall cause a written protest to be filed with the Port within two (2) business days of the event giving rise to the protest. (Intermediate Saturdays, Sundays, and legal holidays are not counted as business days.) The written protest shall include the name of the protesting Bidder, the bid solicitation number and title under which the protest is submitted, a detailed description of the specific factual and legal grounds for the protest, copies of all supporting documents, evidence that the apparent low bidder has been given notice of the protest, and the specific relief requested. The written protest shall be sent by email to procurement@portoftacoma.com.
2. Consideration. Upon receipt of the written protest, the Port will consider the protest. The Port may, within three (3) business days of the Port's receipt of the protest, provide any other affected Bidder(s) the opportunity to respond in writing to the protest. If the protest is not resolved by mutual agreement of the protesting Bidder and the Port, the Contracts Director of the Port, or his or her designee, will review the issues and promptly furnish a final and binding written decision to the protesting Bidder, and any other affected Bidder(s), within six (6) business days of the Port's receipt of the protest. (If more than one (1) protest is filed, the Port's decision will be provided within six (6) business days of the Port's receipt of the last protest.) If no reply is received from the Port during the six (6) business-day period, the protest will be deemed rejected.
3. Waiver. Failure to comply with these protest procedures will render a protest waived.
4. Condition Precedent. Timely and proper compliance with, and exhaustion of, these protest procedures shall be a condition precedent to any otherwise permissible judicial consideration of a protest.

1.06 POST BID INFORMATION

A. THE LOWEST RESPONSIVE BIDDER SHALL:

1. Responsibility Detail Form. Within 24 hours of the Low Responsive Bidder Selection Notification, the apparent low Bidder shall submit to the Port the Responsibility Detail Form and other required documents (Section 00 45 13) executed by an authorized company officer. As requested from the Port, the low responsive Bidder shall provide written confirmation that the person signing the Bid on behalf of the Bidder was duly authorized at the time of bid, a detailed breakdown of the Bid in a form acceptable to the Port, and other information required by the Port.
2. The apparent low Bidder shall submit to the Port upon request:
 - a. Additional information regarding the use of the Bidder's own forces and the use of subcontractors and suppliers;
 - b. The names of the persons or entities (including a designation of the Work to be performed with the Bidder's own forces, and the names of those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work (i.e., either a listed Sub-Bidder or a Sub-Bidder

performing Work valued at least ten (10) percent of the Base Bid), consistent with the listing required with the Bid; and

- c. The proprietary names and the suppliers of the principal items or systems of materials and equipment proposed for the Work.
- 3. Failure to provide any of the above information in a timely manner will constitute an event of breach permitting forfeiture of the Bid security.
- 4. Bidder Responsibility. The Bidder will be required to establish, to the satisfaction of the Port, the reliability and responsibility of itself and the persons or entities proposed to furnish and perform the Work described in the Bidding Documents. If requested, the Bidder shall meet with the Port to discuss the Bid, including any pricing, the Bid components, and any assumptions made by the Bidder.
- 5. Objection. Prior to an Award of the Contract, the Port will notify the Bidder in writing if the Port, after due investigation, has reasonable objection to the Bidder or a person or entity proposed by the Bidder. Upon receiving such objection, the Bidder may, at Bidder's option: (a) withdraw their Bid, (b) submit an acceptable substitute person or entity with no change in the Contract Time and no adjustment in the Base Bid or any Alternate Bid, even if there is a cost to the Bidder occasioned by such substitution, or (c) file a protest in accordance with the Bidding Documents.
- 6. Change. Persons and entities proposed by the Bidder to whom the Port has made no reasonable objection must be used on the Work for which they were proposed and shall not be changed, except with the written consent of the Port.
- 7. Right to Terminate. The Bidder's representations concerning its qualifications will be construed as a covenant under the Contract. If a Bidder makes a material misrepresentation on a Qualification Statement, the Port has the right to terminate the Contract for cause and may then pursue any remedies that exist under the Contract or that are otherwise available.

B. INFORMATION FROM OTHER BIDDERS: All other Bidders designated by the Port as under consideration for Award of a Contract shall also provide a properly executed Qualification Statement, if so requested by the Port.

1.07 PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND, AND INSURANCE

A. BOND REQUIREMENTS. Within fifteen (15) days after the Port's Notice of Award of the Contract, the successful Bidder shall obtain and furnish statutory bonds pursuant to RCW 39.08 covering the faithful performance of the Contract and the payment of all obligations arising thereunder in the form and amount prescribed in the Contract Documents. Bonds shall be written for one hundred (100) percent of the contract award amount, plus Washington State Sales Tax and Change Orders. The cost of such bonds shall be included in the Base Bid.

- 1. On contracts of one hundred fifty thousand dollars (\$150,000) or less, at the option of the Contractor or the General Contractor/Construction Manager as defined in RCW 39.10.210, the Port may, in lieu of the bond, retain ten (10) percent of the contract amount for a period of thirty days after date of final acceptance, or until receipt of all necessary releases from the department of revenue, the employment security department, and the department of labor and industries and settlement of any liens filed under RCW 60.28, whichever is later. The recovery of unpaid wages and benefits must be the first priority for any actions filed against retainage held by a state agency or authorized local government.
- 2. On contracts of one hundred fifty thousand dollars (\$150,000) or less, the Port may accept a full payment and performance bond from an individual surety or sureties.

- B. **TIME OF DELIVERY AND FORM OF BONDS.** The successful Bidder shall deliver an original copy of the required bonds to the Port, 1 Sitcum Plaza, Tacoma, WA 98421, within the time specified in the Contract Documents.
- C. **INSURANCE.** The successful Bidder shall deliver a certificate of insurance from the Bidder's insurance company that meets or exceeds all requirements of the Contract Documents.
- D. **GOVERNMENTAL REQUIREMENTS.** Notwithstanding anything in the Bidding or Contract Documents to the contrary, the Bidder shall provide all bonding, insurance, and permit documentation as required by governmental authorities having jurisdiction for any portions of the Project.

1.08 FORM OF AGREEMENT

- A. **FORM TO BE USED.** The Contract for the Work will be written on the form(s) contained in the Bidding Documents, including any General, Supplemental, or Special Conditions, and the other Contract Documents included with the project manual.
- B. **CONFLICTS.** In case of conflict between the provisions of these Instructions and any other Bidding Document, these Instructions shall govern. In case of conflict between the provisions of the Bidding Documents and the Contract Documents, the Contract Documents shall govern.
- C. **CONTRACT DELIVERY.** Within fifteen (15) days after Notice of Award, the Bidder shall submit a signed Contract to the Port in the form tendered to the Bidder and without modification.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for substitutions.

1.02 DEFINITIONS/CLARIFICATIONS

- A. Substitutions. Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- B. The Contract Documents include performance specifications for products and equipment which meet Project requirements. In those cases where a representative item or manufacturer is named in the specification, it is provided for the sole purpose of identifying a product meeting the required functional performance, and where the words "or equal" are used, a substitution request as further described, is not required.
- C. Where non-competitive or sole source products or manufacturers are explicitly specified with the words "or approved equal," or "Engineer approved equal," or "as approved by the Engineer" are used, they shall be taken to mean "or approved equal." In these cases a substitution request as further described in this Section, is required.

1.03 SUBMITTALS

- A. Substitution Request Form. Use copy of form located at the end of this Section.
- B. Pre-Bid Substitution Requests. Submit one (1) PDF of the Substitution Request Form along with all supporting documentation for consideration of each request. Identify product, fabrication, or installation method to be replaced. Include Drawing numbers and titles. Substitution requests prior to the Bid Date may originate directly from a prime Bidder, or from a prospective Sub-Bidder.
 1. Documentation. Show compliance with requirements for substitutions with the following, as applicable:
 - a. Statement indicating why specified product, fabrication, or installation cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work that will be necessary to accommodate proposed substitution.
 - c. Product Data, including drawings and descriptions of products, fabrication, and installation procedures.
 - d. Samples, where applicable or requested.
 - e. Certificates and qualification data, where applicable or requested.
 - f. Research reports evidencing compliance with building code in effect for the Project.
 2. Engineer's Action. Engineer will review substitution requests if received electronically to procurement@portoftacoma.com at least seven (7) days prior to the Bid Date. Substitution requests received after this time will not be reviewed.
 - a. Forms of Acceptance. Substitution requests will be formally accepted via written addendum prior to the Bid Date. Bidders shall not rely upon approvals made in any other manner.
 - b. Use product originally specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.

- c. The Port's decision of approval or disapproval of a proposed substitution shall be final.
- C. Post-Award Substitution Requests must be submitted by the Contractor and not a Subcontractor nor Supplier.
 - 1. Documentation. Show compliance with requirements for substitutions with the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification Section. Significant qualities may include, but are not limited to, attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified. .
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses. Also provide names and addresses of the applicable architect, engineer, and owner.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for the Project.
 - j. Comparison of the approved Baseline Project Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 - 2. Engineer's Action. If necessary, Engineer will request additional information or documentation for evaluation within seven (7) calendar days of receipt of a request for substitution. Engineer will notify Contractor through Port of acceptance or rejection of proposed substitution within fifteen (15) calendar days of receipt of request, or seven (7) calendar days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance. Change Order or Minor Change in Work.

- b. Use product originally specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.
3. Substitutions for Cause. Submit requests for substitution immediately upon discovery of need for change, but not later than fourteen (14) days prior to date required for preparation and review of related submittals.
 - a. Conditions. Engineer will consider Contractor's request for substitution when the following conditions are satisfied:
 - 1) Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 2) Requested substitution will not adversely affect the Baseline Project Schedule.
 - 3) Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 4) Requested substitution is compatible with other portions of the Work.
 - 5) Requested substitution has been coordinated with other portions of the Work.
 - 6) Requested substitution provides specified warranty.
 - 7) If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
4. Substitutions for Convenience. Engineer will consider Contractor's requests for substitution if received within fourteen (14) days after the Notice of Award.
 - a. Conditions. Engineer will consider Contractor's request for substitution when the following conditions are satisfied:
 - 1) Requested substitution offers Port a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Port must assume. Port's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Port, and similar considerations.
 - 2) Requested substitution does not require extensive revisions to the Contract Documents.
 - 3) Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 4) Requested substitution will not adversely affect the Baseline Project Schedule.
 - 5) Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 6) Requested substitution is compatible with other portions of the Work.
 - 7) Requested substitution has been coordinated with other portions of the Work.
 - 8) Requested substitution provides specified warranty.
 - 9) If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

involved.

D. Substitutions will not be considered when:

1. Indicated or implied on shop drawings or product data submittals without formal request submitted in accordance with this Section.
2. Acceptance will require substantial revision of Contract Documents or other items of the Work.
3. Submittal for substitution request does not include point-by-point comparison of proposed substitution with specified product.

1.04 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

**PROJECT TITLE: 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1,
WUT and Pier 3** **PROJECT NO.: 201130.01 | 201130.02 | 201130.03**

SUBMITTED BY: _____ CONTRACT NO.: 071569
PRIME/SUB/SUPPLIER: _____ DATE: _____

Specification Title: _____ Section No.: _____
Description: _____ Paragraph: _____
_____ Page No.: _____

Proposed Substitution: _____
Trade Name: _____ Model No.: _____
Manufacturer: _____
Address: _____ Phone No.: _____
Installer: _____
Address: _____ Phone No.: _____
Differences between proposed substitution and specified product: _____

Point-by-Point comparative data attached - REQUIRED

Reason for not providing specified item: _____

Similar Installation:
Project: _____ A/E: _____
Address: _____
Owner: _____ Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain _____

Supporting Data Attached:
 Drawings Product Data Samples Tests Reports Other: _____

Applicable to Substitution Requests During Construction:

Proposed to Port for accepting substitution: \$ _____

Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ # days.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.

- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay Baseline Project Schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted By: _____

Signed By: _____ Firm: _____

Address: _____

Telephone: _____ Email: _____

Attachments: _____

A/E's REVIEW AND RECOMMENDATION

- Approved Substitution
- Approved Substitution as Noted
- Reject Substitution - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

ENGINEER'S REVIEW AND ACTION

- Substitution Approved - Make submittals in accordance with this Specification Section. If during construction, prepare Change Order.
- Substitution Approved as Noted - Make submittals in accordance with this Specification Section. If during construction, prepare Change Order.
- Substitution Rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

END OF SECTION

PART 1 - GENERAL

1.01 REFERENCE DATA

- A. Hyundai Merchant Marine Terminal Wharf - Contract No. 978038 (WUT Wharf Structural Drawings)
- B. East Blair One Wharf - Contract No. 068618 (EB1 Wharf Structural Drawings)
- C. Pier 3 Upgrades - Contract No. 069458 (Pier 3 Wharf Structural Drawings)

1.02 AVAILABILITY

- A. Reference Documents are available online through the Port of Tacoma's Website www.portoftacoma.com. Click on "Contracts," "Procurement," and then the Procurement Number.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section provides the notification required for disclosure of asbestos, lead-containing or other hazardous materials.

1.02 HAZARDOUS MATERIALS NOTICE

- A. The Port is reasonably certain that asbestos and lead will not be disturbed by the project. If the Contractor encounters material suspected of containing lead or asbestos which will interfere with the execution of the work, the Contractor shall stop work and notify the Engineer.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

BIDDER'S NAME: _____

PROJECT TITLE: 2021 PIER REPAIRS (PILE CRACKS, SPALL REPAIRS AND MOORING COATING) - EB1, WUT AND PIER 3

The undersigned Bidder declares that it has read the Contract Documents (including documents provided by reference), understands the conditions under which the Work will be performed, has examined the Project site, and has determined for itself all situations affecting the Work herein Bid upon. Bidder proposes and agrees, if this Bid is accepted, to provide at Bidder's own expense, all labor, machinery, tools, materials, etc., including all Work incidental to, or described or implied as incidental to such items, according to the Contract Documents, and that the Bidder will complete the Work within the time stated, and that Bidder will accept in full the lump sum or unit price(s) set forth below:

ITEM NO.	DESCRIPTION OF ITEM	QTY	UOM	UNIT PRICE	EXTENDED PRICE (QTY. x UNIT PRICE)
1	Mobilization and Demobilization	-	-	-	-
1.01	Mobilization and Demobilization - Pier 3 (201130.01)	1	LS		
1.02	Mobilization and Demobilization - WUT (201130.02)	1	LS		
1.03	Mobilization and Demobilization -EB1 (201130.03)	1	LS		
2	Project Administration	-	-	-	-
2.01	Project Administration - Pier 3 (201130.01)	1	LS		
2.02	Project Administration - WUT (201130.02)	1	LS		
2.03	Project Administration - EB1 (201130.03)	1	LS		
3	Pier 3 Pile Cap Spall Repair (201130.01)	1	EA		
4	WUT Spall and Crack Repairs (201130.02)	2	EA		
5	EB1 Edge Beam Spall Repairs (201130.03)	2	EA		
6	EB1 Pile Crack Repairs (201130.03)	318	LF		

TOTAL BID AMOUNT	
10.3% WASHINGTON STATE SALES TAX (WSST) ON BASE BID SUBTOTAL	
BID TOTAL (WITH WSST)	

Note: Show prices in figures only.

Non-Collusion Representation. The Bidder declares under penalty of perjury that the Bid submitted is genuine and not a sham or collusive bid, or made in the interest or on behalf of any person or firm not therein named; and further represents that the Bidder has not directly or indirectly induced or solicited any other bidder to submit a sham bid, or encouraged any other person or corporation to refrain from bidding; and that the Bidder has not in any manner sought by collusion to secure to the Bidder an advantage over any other bidder or bidders.

RCW 39.04.350 Certification. The Bidder represents and certifies, under penalty of perjury, that within the three- (3-) year period immediately preceding the Bid Date, the Bidder has not been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries, nor through a civil judgment entered by a court of limited or general jurisdiction, to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, nor 49.52 RCW.

Addenda. Bidder acknowledges receipt and acceptance of all Addenda through No. ____ (Identify Last Addenda By Number)

Bid Security. A certified check, cashier's check, or other obligation of a bank, or a bid bond in substantially the form set forth in Section 00 43 13, Bid Security Form for at least five (5) percent of the Base Bid Subtotal, shall be submitted with this Bid.

Name of Firm	Date
Signature	By Title
Mailing Address	City, State Zip Code
Telephone Number	Email Address
WA State Contractor's License No.	Employment Security Department No.

Identification of Bidder as a sole proprietor, a partnership, a joint venture, a corporation, or another described form of legal entity

END OF SECTION

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the PORT OF TACOMA as Obligee, in the penal sum of _____ Dollars, for the payment of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigned, jointly and severally, by these present.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for _____, according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for the faithful performance thereof, with Surety or Sureties approved by the Obligee; or, if the principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS _____ DAY OF _____, 20____

BY _____
PRINCIPAL

BY _____
SURETY

AGENT AND ADDRESS

Note: Bidder may submit Surety's bid bond form, provided it is similar in substance, made out in the name of the Port of Tacoma, and that the agent's name and address appear as specified. Bonds containing riders limiting responsibility for toxic waste or limiting the term of responsibility will be rejected.

END OF SECTION

THIS IS NOT TO BE SUBMITTED WITH A BID.

THE LOW RESPONSIVE BIDDER SHALL BE REQUIRED TO COMPLETE THIS RESPONSIBILITY DETAIL FORM AS SPECIFIED IN SECTION 00 21 00 - INSTRUCTIONS TO BIDDERS. **THIS COMPLETED RESPONSIBILITY DETAIL FORM SHALL BE SUBMITTED ELECTRONICALLY (PDF) VIA EMAIL TO THE CONTACT(S) IDENTIFIED IN THE LOW RESPONSIVE BIDDER SELECTION NOTIFICATION.**

BIDDER'S COMPANY NAME: _____

For the below Mandatory Bidder Responsibility Criteria, please mark the appropriate choice.

1.01 MANDATORY BIDDER RESPONSIBILITY CRITERIA

A. The Bidder shall meet the following mandatory responsibility criteria as described in RCW 39.04.350(1). The Bidder shall be rejected as not responsible if any answer to questions 1 through 5 is "No" or any answer to questions 6 through 8 is "Yes."

1. Does the Bidder have a Certificate of Registration in compliance with RCW 18.27?
 Yes No
2. Does the Bidder have a current Washington State Unified Business Identifier number?
 Yes No
3. Does the Bidder have Industrial Insurance Coverage for the Bidder's employees working in Washington State as required in RCW 51?
 Yes No
4. Does the Bidder have an Employment Security Department number as required in RCW 50?

****Attach letter dated within six (6) months of Bid Date.***

****Request a letter electronically by clicking on the following link
<https://fortress.wa.gov/esd/twt/pwcinternet/> or by emailing a request to
publicworks@esd.wa.gov.***

- Yes No
5. Does the Bidder have a Washington State Excise Tax Registration number as required in RCW 82?
 Yes No
6. Has the Bidder been disqualified from bidding on any public works project under RCW 39.06.010 or 39.12.065(3)?
 Yes No
7. Has the Bidder violated RCW 39.04.370 more than one (1) time as determined by the Washington State Department of Labor and Industries?
 Yes No

8. Has the Bidder ever been found to be out of compliance with Apprenticeship Utilization requirements of RCW 39.04.320?
 Yes No
9. Has the Bidder ever been found to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, or 49.52 RCW within the three- (3-) year period immediately preceding the date of this bid solicitation?
 Yes No
10. Has the Bidder completed the training required by RCW 39.04.350, or is the Bidder on the list of exempt businesses maintained by the Department of Labor and Industries?
 Yes No

If any answer to questions 1 through 5 is "No" or any answer to questions 6 through 8 is "Yes" - **STOP HERE** and contact the Contract Administrator. The Bidder is not responsible for this Work. Otherwise proceed to 1.02. **Provide attached to this completed form documentation to confirm responsibility criteria.**

For remaining criteria below, check or fill-out the appropriate item. Based upon the answer provided by the Bidder, the Port may request additional information or seek further explanation. As needed, provide backup documentation for any explanations listed below.

1.02 CONTRACT AND REGULATORY HISTORY

- A. The Port will evaluate whether the Bidder's contract and regulatory history demonstrates an acceptable record of past project performance and consistent responsibility. The Bidder shall answer the following questions. The Bidder may be rejected as not responsible if any answer to questions 1 through 5 below is "Yes."
 1. Has the Bidder had a contract terminated for cause or default in the last five (5) years?
 Yes, **If YES, explain below.** No

 2. Has the Bidder required a Surety to take over all, or a portion of, a project to cure or respond to an asserted default or material breach of contract on the part of the Bidder on any public works project in the last five (5) years?
 Yes, **If YES, explain below.** No

 3. Have the Bidder and major Sub-Bidders been in bankruptcy, reorganization, and/or receivership on any public works project in the last five (5) years?
 Yes, **If YES, explain below.** No

4. Have the Bidder and major Sub-Bidders been disqualified by any state or local agency from being awarded and/or participating on any public works project in the last five (5) years?

Yes, If YES, explain below. No

5. Are the Bidder and major Sub-Bidders currently a party to a formal dispute resolution process with the Port (i.e., a pending mediation, arbitration, or litigation)?

Yes, If YES, explain below. No

1.03 ACCIDENT/INJURY EXPERIENCE

A. The Port will evaluate the Bidder's accident/injury Experience Modification Factor ("EMF") from the Washington State Department of Labor and Industries to assess whether the Bidder has an acceptable safety record preventing personal injuries on projects.

B. List the Bidder's accident/injury EMF for the last five (5) years. An experience factor is calculated annually by the Washington State Department of Labor and Industries.

Year	Effective Year	Experience Factor
1		
2		
3		
4		
5		

If the Bidder has received an EMF of greater than 1.0 for any year, explain the cause(s) of the designation and what remedial steps were taken to correct the EMF. The Bidder may be rejected as not responsible if the Bidder's EMF is greater than 1.0 and sufficient remedial steps have not been implemented.

1.04 WORK PERFORMED BY BIDDER

A. The Bidder shall state the amount of the Work, as an equivalent to the Base Bid, excluding taxes, insurance, and bonding, the Bidder will execute with its own forces.

%

1.05 ADDITIONAL CONTRACTOR INFORMATION

A. As part of completing this Responsibility Detail Form, **submit the following information with the completed Responsibility Detail Form:**

1. Bidder's recent job resume, including a list of similar projects performed and contact information for the similar project owner(s), a brief description of work, start and end dates, and contract amount.
2. Resumes of Bidder's proposed project manager and job superintendent.

B. The Bidder's failure to provide the required project information may result in a determination of the Bidder being declared non-responsible by the Port.

- C. The Bidder shall submit this completed, **SIGNED** Responsibility Detail Form electronically (PDF), with all requested backup documentation, via email to the contact(s) noted on the Low Responsive Bidder Selection Notification.
- D. The Bidder and its subcontractors to verify that its subcontractors at each tier meet the responsibility criteria as required by RCW 39.06.020 and 39.04.350.
 1. Bidder shall verify major subcontractors meet the responsibility criteria required. Fill out one Port of Tacoma Public Works Project Bidder Evaluation Checklist for Subcontractors for each major subcontractor and submit to the Port with this form. Backup documentation is not required to be submitted.

PROJECT: 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3

PROJECT NO.: 201130.01 | 201130.02 | 201130.03

CONTRACT NO.: 071569

Responsibility Certification Form

The Low responsive Bidder shall complete the Responsibility Detail Form, attach all documentation, and submit to the Port within twenty-four (24) hours following receipt of the Low Responsive Bidder Selection Notification. All forms shall be submitted electronically (PDF) via email to the contact(s) listed on the Selection Notice. Note, the same project may be used to demonstrate experience across multiple categories if applicable.

By completing and signing this Responsibility Detail Form, the Bidder is certifying that the information contained within the Form, the backup documentation, and any additional information requested by the Port is true and complete. The Bidder's failure to disclose the required information or the submittal of false or misleading information may result in the rejection of the Bidder's Bid, revocation of award, or contract termination.

The information provided herein is true and complete.

Signature of Authorized Representative

Date

Print Name and Title

**PORT OF TACOMA PUBLIC WORKS PROJECT BIDDER EVALUATION CHECKLIST FOR
SUBCONTRACTORS**

PROJECT TITLE: 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3

BIDDER: _____

CONTRACT AND PROJECT NUMBER: 071569/ 201130.01 | 201130.02 | 201130.03

This checklist shall be completed by the Bidder and its subcontractors to verify that its subcontractors at each tier meet the responsibility criteria as required by RCW 39.06.020 and RCW 39.04.350.

This checklist should be submitted to the Port of Tacoma Contracts Administrator within twenty-four (24) hours of request.

Document verification information or backup data is not to be submitted to the Port, this information should remain on file with the Contractor and be presented to the Port if requested at a later date.

Item No.	Item	Initials/ Comments
1.	At the time of Bid submittal, have a certificate of registration in compliance with RCW 18.27: Check the L&I site https://fortress.wa.gov/lni/bbip/ . Verify that a subcontractor has an electrical contractor license, if required by RCW 19.28, or an elevator contractor license, if required by RCW 70.87.	
2.	While reviewing registration information above, also check contractor's Employer Liability Certificate to verify workers' comp (industrial insurance) premium status – current account. Complete a "Submit Contractor Tracking Request" to be notified if the contractor fails to pay workers' comp premiums or renew their contractor registration or if their electrical contractor license is suspended or revoked within one year.	
3.	State excise tax registration number (Department of Revenue). (contractor's Washington State Unified Business Identifier and tax registration number) http://dor.wa.gov/content/doingbusiness/registermybusiness/brd/ .	
4.	Not disqualified from bidding on any public works contract under RCW 39.06.010 or RCW 39.12.065(3). Check the Department of Labor and Industries http://www.lni.wa.gov/TradesLicensing/PrevWage/AwardingAgencies/DebarredContractors/ .	
5.	Verify subcontractors are registered with the Washington State Employment Security Department (ESD) and have an account number. Request a letter to be sent from the subcontractor electronically by clicking on the following link https://fortress.wa.gov/esd/twt/pwcinternet/ or by emailing a request to publicworks@esd.wa.gov . Include ESD#, UBI#, and business name in the email.	

DIVISION 00 - Procurement and Contracting Requirements
SECTION 00 45 13 - Responsibility Detail Form

Item No.	Item	Initials/Comments
	<p>Certificate of Coverage letter issued/dated within the last six (6) months.</p> <p>Document if subcontractor confirms in writing, under penalty of perjury, that it has no employees and this requirement does not apply.</p>	

END OF SECTION

THIS AGREEMENT is made and entered into by and between the PORT OF TACOMA, a State of Washington municipal corporation, hereinafter designated as the "Port," and:

The "Contractor" is: _____ **(Legal Name)**

_____ (Address)

_____ (Address 2)

_____ (Phone No.)

The "Project" is: 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1,

WUT and Pier 3 **(Title)**

201130.01 | 201130.02 | 201130.03 | 071569 (Project/Contract No.)

1101 Port of Tacoma Rd | 1815 Port of Tacoma Rd | 2940 Alexander Ave E
_____ (Project Address)

Tacoma, WA 98421 (Project Address 2)

The "Engineer" is: Thais Howard, PE **(Engineer)**

Director of Engineering **(Title)**

thoward@portoftacoma.com **(Email)**

(253) 888-4718 **(Phone No.)**

The "Contractor's Representative" is: _____ **(Representative)**

_____ **(Title)**

_____ **(Email)**

_____ **(Phone No.)**

BACKGROUND AND REPRESENTATIONS:

The Port publicly solicited bids on the Contract Documents. The Contractor submitted a Bid to the Port on the _____ day of _____, 20____ to perform the Work.

The Contractor represents that it has the personnel, experience, qualifications, capabilities, and means to accomplish the Work in strict accordance with the Contract Documents, within the Contract Time and for the Contract Price, and that it and its Subcontractors satisfy the responsibility criteria set forth in the Contract Documents, including any supplemental responsibility criteria.

The Contractor further represents that it has carefully examined, and is fully familiar with, all provisions of the Contract Documents, including any Addenda, that it has fully satisfied itself as to the nature, location, difficulty, character, quality, and quantity of the Work required by the Contract Documents and the conditions and other matters that may be encountered at or near the Project site(s), or that may affect performance of the Work or the cost or difficulty thereof, including all applicable safety and site responsibilities, and that it understands and can satisfy all scheduling and coordination requirements and interim milestones.

AGREEMENT:

The Port and the Contractor agree as follows:

1.0 CONTRACTOR TO FULLY PERFORM THE WORK

The Contractor shall fully execute and complete the entire Work for the Project described in the Contract Documents, except to the extent specifically indicated in the Agreement, the General Conditions of the Contract (as well as any Supplemental, Special, or other conditions included in the Project Manual), the Drawings, the Specifications, and all Addenda issued prior to, and all modifications issued after, execution of the Contract.

2.0 DATE OF COMMENCEMENT

The date of commencement of the Work, which is the date from which the Contract Time is measured, shall be fixed as the date of execution of the Contract.

3.0 CONTRACT TIME AND LIQUIDATED DAMAGES

The Contractor shall achieve all interim milestones as set forth in the Contract Documents and Substantial Completion of the entire Work not later than **December 31st 2021**, subject to adjustments of this Contract Time as provided in the Contract Documents. The Contractor shall achieve Final Completion of the entire Work within 30 calendar days of the date on which Substantial Completion is achieved.

Provisions for liquidated damages as a reasonable estimate of future loss, as of the date of this Agreement, are included in the Contract Documents. The parties agree that the stated liquidated damages are reasonable and not penalties individually nor cumulatively.

The liquidated damages for failure to achieve Substantial Completion by the required date shall be **\$250** per calendar day. After the required Final Completion date, the liquidated damages for failure to achieve Final Completion shall be **\$100** per calendar day.

Liquidated damages assessed by the Port will be deducted from monies due to the Contractor, or from monies that will become due to the Contractor. The liquidated damages, as specified and calculated herein, shall be levied, cumulatively if applicable, for each and every calendar day that Substantial

Completion and/or Final Completion of the Work is delayed beyond the required completion dates, or the completion dates modified by the Port for extensions of the Contract Time.

4.0 CONTRACT PRICE

In accordance with the Contractor's Bid dated _____, the Port shall pay the Contractor in current funds for the Contractor's performance of the Contract, the Contract Price of _____ Dollars (\$ _____), subject to additions and deductions as provided in the Contract Documents. State and local sales tax is not included in the Contract Price, but will be due and paid by the Port with each progress payment.

6.0 INSURANCE AND BONDS

The Contractor shall purchase and maintain insurance and provide bonds as set forth in the Contract Documents.

This Agreement is entered into as of the day and year first written above:

CONTRACTOR

PORT OF TACOMA

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Execution _____
Date: _____

END OF SECTION

PERFORMANCE BOND # _____

CONTRACTOR (NAME AND ADDRESS)

SURETY (NAME AND PRINCIPLE PLACE OF BUSINESS)

OWNER (NAME AND ADDRESS)

PORT OF TACOMA
P.O. BOX 1837
TACOMA, WA 98401-1837

AGENT OR BROKER (FOR INFORMATION ONLY)

KNOW ALL MEN BY THESE PRESENTS:

That _____ as Principal, hereinafter called Contractor, and _____ as Surety, hereinafter called Surety, are held and firmly bound unto the Port of Tacoma as Obligee, hereinafter called the Port, in the amount of _____ Dollars (\$_____) for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS:

Contractor shall execute an agreement with the Port for 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3, Project No. 201130.01 | 201130.02 | 201130.03/Contract No. 071569, a copy of which Contract is by reference made a part hereof (the term "Contract" as used herein to include the aforesaid agreement together with all the Contract Documents, addenda, modifications, all alterations, additions thereto, deletions therefrom, and any other document or provision incorporated into the Contract) and is hereinafter referred to as the Contract.

This bond is executed and issued pursuant to the provisions of RCW 39.08.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

FURTHER:

- A. Surety hereby waives notice of any alterations, change orders, modifications, or extensions of time made by the Port.
- B. Surety recognizes that the Contract includes provisions for additions, deletions, and modifications to the Work and/or Contract Time and the amounts payable to the Contractor. Subject to the limitations contained in (A) above, Surety agrees that no such addition, deletion, or modification, or any combination thereof, shall avoid or impair Surety's obligation hereunder.
- C. Whenever Contractor has been declared by the Port to be in default, and the Port has given Surety notice of the Port's determination of such default, Surety shall promptly (in no event more than fifteen (15) days following receipt of such notice) advise the Port of its intended action to:
 1. Remedy the default within fifteen (15) days following its advice to the Port as set forth above, or
 2. Assume within fifteen (15) days, following its advice to the Port as set forth above, completion of the Contract in accordance with the Contract Documents and become

entitled to payment of the balance of the Contract Sum, or

3. Pay the Port upon completion of the Contract, in cash, the cost of completion together with all other reasonable costs and expenses incurred by the Port as a result of the Contractor's default, including but not limited to, those reasonable costs and expenses incurred by the Port in its efforts to mitigate its losses, which may include, but are not limited to, attorney's fees and efforts to complete the Work prior to the Surety exercising the options available to it as set forth herein.
- D. If the Port shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment, shall pay all costs and attorney's fees incurred by the Port in enforcement of its rights hereunder. Venue for any action arising out of, or in connection with, this bond shall be in Pierce County, Washington.
- E. No right or action shall accrue on this bond to, or for the use of, any person or corporation other than the Port of Tacoma.

Signed and Sealed the _____ day of _____, 20____.

IMPORTANT: Surety companies executing bonds must have an A.M. Best Rating of "A-, FSC (6)" or higher, have an underwriting limitation of not less than the Contract Sum, and be authorized to transact business in the State of Washington.

SURETY

Signature

Printed Name and Title

Power of Attorney attached.

CONTRACTOR

Signature

Printed Name and Title

END OF SECTION

LABOR AND MATERIAL PAYMENT BOND # _____

CONTRACTOR (NAME AND ADDRESS)

SURETY (NAME AND PRINCIPLE PLACE OF BUSINESS)

OWNER (NAME AND ADDRESS)

PORT OF TACOMA
P.O. BOX 1837
TACOMA, WA 98401-1837

AGENT OR BROKER (FOR INFORMATION ONLY)

KNOW ALL MEN BY THESE PRESENTS:

That _____ as Principal, hereinafter called Contractor, and _____ as Surety, hereinafter called Surety, are held and firmly bound unto the Port of Tacoma as Obligee, hereinafter called the Port, and all others entitled to recovery hereunder, in the amount of _____ Dollars (\$_____) for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS:

Contractor shall execute an agreement with the Port for 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3, Project No. 201130.01 | 201130.02 | 201130.03/Contract No. 071569, a copy of which Contract is by reference made a part hereof (the term "Contract" as used herein to include the aforesaid agreement together with all the Contract Documents, addenda, modifications, alterations, additions thereto, deletions therefrom, and any other document or provision incorporated into the Contract) and is hereinafter referred to as the Contract.

This bond is executed pursuant to the provisions of RCW 39.08.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Contractor shall promptly make payment to all claimants, as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and shall indemnify and save the Port harmless from all cost and damage by reason of Contractor's default, then this obligation shall be null and void; otherwise, it shall remain in full force and effect, subject to the following conditions.

- A. Surety hereby waives notice of any alterations, change orders, modifications, or extensions of time made by the Port.
- B. Surety recognizes that the Contract includes provisions for additions, deletions, and modifications to the Work and/or Contract Time and the amounts payable to the Contractor. Subject to the limitations contained in (A) above, Surety agrees that no such addition, deletion, or modification, or any combination thereof, shall avoid or impair Surety's obligation hereunder.
- C. Surety hereby agrees that every person protected under the provisions of RCW 39.08.010 who has not been paid as provided under the Contract, and pursuant to RCW 39.08.010, less any amounts withheld pursuant to statute, and less retainage withheld pursuant to RCW 60.28, after the expiration of a period of thirty (30) days after the date on which the completion of the Contract in accordance with RCW 39.08, may sue on this bond, prosecute the suit to final judgment as may be due claimant, and have execution thereon including recovery of reasonable costs and attorney's fees as provided by RCW 39.08. The Port shall not be liable for

the payment of any costs or expenses of any such suit.

- D. No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the Port, and where required, the Contractor, in accordance with RCW 39.08.030.
- E. The amount of this bond shall be reduced by, and to the extent of, any payment or payments made in good faith hereunder, inclusive of the payment by Surety of claims which may be properly filed in accordance with RCW 39.08 whether or not suit is commenced under and against this bond.
- F. If any Claimant shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment and attorney fees as provided by RCW 39.08.030, shall also pay such costs and attorney fees as may be incurred by the Port as a result of such suit. Venue for any action arising out of, or in connection with, this bond shall be in Pierce County, Washington.

Signed and Sealed the _____ day of _____, 20____.

IMPORTANT: Surety companies executing bonds must have an A.M. Best Rating of "A-, FSC (6)" or higher, have an underwriting limitation of not less than the Contract Sum, and be authorized to transact business in the State of Washington.

SURETY

Signature

Printed Name and Title

Power of Attorney attached.

CONTRACTOR

Signature

Printed Name and Title

END OF SECTION

BOND NO.: _____

PROJECT TITLE: 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3

PROJECT NO.: 201130.01 | 201130.02 | 201130.03

CONTRACT NO.: 071569

KNOW ALL MEN BY THESE PRESENTS: That we, _____ a corporation existing under and by virtue of the laws of the State of Washington and authorized to do business in the State of Washington, as Principal, and _____, a corporation organized and existing under the laws of the State of _____ and authorized to transact the business of surety in the State of Washington, as Surety, are jointly and severally held and bound unto the PORT OF TACOMA, hereinafter called Port, as Obligee, and are similarly held and bound unto the beneficiaries of the trust fund created by RCW 60.28 as their heirs, executors, administrators, successors, and assigns in the penal sum of _____ (\$_____) plus five (5) percent of any increases in the Contract Price that have occurred or may occur, due to change orders, increases in the quantities, or the addition of any new item of work.

WHEREAS, on the _____ day of _____, the said Principal herein executed Contract No. 071569 with the Port for 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3, Project No. 201130.01 | 201130.02 | 201130.03.

WHEREAS, said Contract and RCW 60.28 require the Port to withhold from the Principal the sum of five (5) percent from monies earned by the Principal on estimates during the progress of the work, hereinafter referred to as earned retained funds.

WHEREAS, the Principal has requested that the Port accept a bond in lieu of earned retained funds as allowed under RCW 60.28.

NOW THEREFORE, this obligation is such that the Surety, its successors, and assigns are held and bound unto the Port and unto all beneficiaries of the trust fund created by RCW 60.28.011(1) in the aforesaid sum. This bond, including any proceeds therefrom, is subject to all claims and liens and in the same manner and priority as set forth for retained percentages in RCW 60.28. The condition of this obligation is also that if the Principal shall satisfy all payment obligations to persons who may lawfully claim under the trust fund created pursuant to RCW 60.28, to the Port, and indemnify and hold the Port harmless from any and all loss, costs, and damages that the Port may sustain by release of said retainage to Principal, then this obligation shall be null and void, provided the Surety is notified by the Port that the requirements of RCW 60.28.021 have been satisfied and the obligation is duly released by the Port.

IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable under this obligation as Principal. The Surety will not be discharged or released from liability for any act, omission, or defenses of any kind or nature that would not also discharge the Principal.

IT IS HEREBY FURTHER DECLARED AND AGREED that this obligation shall be binding upon and inure to the benefit of the Principal, the Surety, the Port, the beneficiaries of the trust fund created by RCW 60.28 and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, said Principal and said Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20____.

By: _____
Principal

Address: _____

City/ST/Zip: _____

Phone: _____

Surety Name: _____

By: _____
Attorney-In-Fact

Address: _____

City/ST/Zip: _____

Phone: _____

IMPORTANT: Surety companies executing bonds must have an A.M. Best Rating of "A-, FSC (6)" or higher, and be authorized to transact business in the State of Washington.

END OF SECTION

	TABLE OF CONTENTS	PAGE
ARTICLE 1 - THE CONTRACT DOCUMENTS		3
1.01 GENERAL		3
1.02 DEFINITIONS		3
1.03 INTENT OF THE CONTRACT DOCUMENTS		4
1.04 CORRELATION OF THE CONTRACT DOCUMENTS		4
1.05 OWNERSHIP OF THE CONTRACT DOCUMENTS		5
ARTICLE 2 - PORT OF TACOMA		5
2.01 AUTHORITY OF THE ENGINEER		5
2.02 ADMINISTRATION OF THE CONTRACT		5
2.03 INFORMATION PROVIDED BY THE PORT		6
2.04 CONTRACTOR REVIEW OF PROJECT INFORMATION		6
2.05 PORT'S RIGHT TO REJECT, STOP, AND/OR CARRY-OUT THE WORK		6
2.06 SEPARATE CONTRACTORS		7
2.07 OFFICERS AND EMPLOYEES OF THE PORT		7
ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES		7
3.01 DUTY TO PERFORM THE ENTIRE WORK		7
3.02 OBSERVED ERRORS, INCONSISTENCIES, OMISSIONS OR VARIANCES IN THE CONTRACT DOCUMENTS		7
3.03 SUPERVISION AND RESPONSIBILITY FOR SUBCONTRACTORS		8
3.04 MATERIALS AND EQUIPMENT		8
3.05 CONTRACTOR WARRANTIES		8
3.06 REQUIRED WAGES		9
3.07 STATE AND LOCAL TAXES		9
3.08 PERMITS, LICENSES, FEES, AND ROYALTIES		10
3.09 SAFETY		10
3.10 CORRECTION OF WORK		10
3.11 UNCOVERING OF WORK		11
3.12 RELOCATION OF UTILITIES		11
3.13 LABOR		12
3.14 INDEMNIFICATION		12
3.15 WAIVER OF CONSEQUENTIAL DAMAGES		13
ARTICLE 4 - SUBCONTRACTORS AND SUPPLIERS		13
4.01 RESPONSIBILITY FOR ACTIONS OF SUBCONTRACTORS AND SUPPLIERS		13
4.02 AWARD OF CONTRACTS TO SUBCONTRACTORS AND SUPPLIERS		13
4.03 SUBCONTRACTOR AND SUPPLIER RELATIONS		14
ARTICLE 5 - WORKFORCE AND NON-DISCRIMINATION REQUIREMENTS		15
5.01 COMPLIANCE WITH NON-DISCRIMINATION LAWS		15
5.02 MWBE, VETERAN-OWNED, AND SMALL BUSINESS ENTERPRISE PARTICIPATION ..		15
5.03 APPRENTICESHIP PARTICIPATION		15
ARTICLE 6 - CONTRACT TIME AND COMPLETION		16
6.01 CONTRACT TIME		16
6.02 PROGRESS AND COMPLETION		16
6.03 SUBSTANTIAL COMPLETION		17
6.04 COMPLETION OF PUNCH LIST		17

6.05	FINAL COMPLETION	17
6.06	FINAL ACCEPTANCE	18
6.07	PORT'S RIGHT TO USE THE PREMISES	18
ARTICLE 7 - PAYMENT		18
7.01	ALL PAYMENTS SUBJECT TO APPLICABLE LAWS AND SCHEDULE OF VALUES.....	18
7.02	APPLICATIONS FOR PAYMENT	19
7.03	PROGRESS PAYMENTS	19
7.04	PAYMENT BY CONTRACTOR TO SUBCONTRACTORS	19
7.05	FINAL PAYMENT	19
7.06	RETAINAGE	20
7.07	DISPUTED AMOUNTS	21
7.08	EFFECT OF PAYMENT	21
7.09	LIENS	21
ARTICLE 8 - CHANGES IN THE WORK		21
8.01	CHANGES IN THE WORK	21
8.02	CHANGES IN THE CONTRACT SUM	23
8.03	CHANGES IN THE CONTRACT TIME	26
8.04	RESERVATION OF RIGHTS	27
8.05	UNIT PRICES	27
ARTICLE 9 - SUSPENSION AND TERMINATION OF CONTRACT		27
9.01	PORT'S RIGHT TO SUSPEND WORK	27
9.02	TERMINATION OF CONTRACT FOR CAUSE BY THE PORT	28
9.03	TERMINATION OF CONTRACT FOR CONVENIENCE BY THE PORT	28
9.04	TERMINATION OF CONTRACT BY THE CONTRACTOR	28
9.05	SUBCONTRACT ASSIGNMENT UPON TERMINATION	29
ARTICLE 10 - BONDS		29
10.01	CONTRACTOR PERFORMANCE AND PAYMENT BONDS	29
ARTICLE 11 - DISPUTE RESOLUTION		30
11.01	NOTICE OF PROTEST AND CLAIM	30
11.02	MEDIATION	31
11.03	LITIGATION	32
ARTICLE 12 - MISCELLANEOUS		32
12.01	GENERAL	32
12.02	WAIVER	32
12.03	GOVERNING LAW	33
12.04	COMPLIANCE WITH LAW	33
12.05	ASSIGNMENT	33
12.06	TIME LIMIT ON CAUSES OF ACTION	33
12.07	SERVICE OF NOTICE	33
12.08	RECORDS	34
12.09	STATUTES	34

ARTICLE 1 - THE CONTRACT DOCUMENTS

1.01 GENERAL

- A. Contract Documents form the Contract. The Contract Documents are enumerated in the Agreement between the Port and Contractor ("Agreement"). Together, the Contract Documents form the Contract. The Contract represents the entire integrated agreement between the parties and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only in writing and only as set forth in the Contract Documents.
- B. Headings only for convenience. The titles or headings of the sections, divisions, parts, articles, paragraphs, and subparagraphs of the Contract Documents are intended only for convenience.

1.02 DEFINITIONS

- A. "Contract Documents" proposed for the Work consist of the Agreement, the General Conditions of the Contract (as well as any Supplemental, Special, or other conditions included in the Project Manual), the Drawings, the Specifications, and all Addenda issued prior to, and all modifications issued after, execution of the Contract.
- B. "Contractor" means the person or entity contracting to perform the Work under these Contract Documents. The term Contractor includes the Contractor's authorized representative for purposes of identifying obligations and responsibilities under the Contract Documents, including the ability to receive notice and direction from the Port.
- C. "Day" means a calendar day unless otherwise specifically designated.
- D. "Drawings" are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, including plans, elevations, sections, details, and diagrams.
- E. "Engineer" is the Port employee generally tasked with administering the Project on the Port's behalf and the person with overall responsibility for managing, for the Port, the Project scope, budget, and schedule. To the extent empowered, the Engineer may delegate to others at the Port (such as a Project Manager or Inspector) the responsibility for performing delegated responsibilities of the Engineer's under this Contract.
- F. "Port" means the Port of Tacoma. The Port will designate in writing a representative (usually the Engineer) who shall have the authority to act on the Port's behalf related to the Project. The "Port" does not include staff, maintenance, or safety workers, or other Port employees or consultants that may contact the Contractor or be present at the Project site.
- G. "Project" is identified in the Agreement and is the total construction to be performed by or through the Port, of which the Work performed under the Contract Documents may be only a part.
- H. "Specifications" are those portions of the Contract Documents that specify the written requirements for materials, equipment, systems, standards, and workmanship for the Work and for the performance of related services.
- I. "Subcontractor" means a person or entity that contracts directly with the Contractor to perform any Work under the Contract Documents. "Subcontractor of any tier" includes Subcontractors as well as any other person or entity, including suppliers, that contracts with a Subcontractor or a lower-tier Subcontractor (also referred to as "Sub-subcontractors") to perform any of the Work.
- J. "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all labor, tools, equipment, materials, services,

and incidentals necessary to complete all obligations under the Contract Documents. The Work may constitute only a part of the Project, and may interface and need to be coordinated with the work of others.

1.03 INTENT OF THE CONTRACT DOCUMENTS

- A. Intent of Contract Documents. The intent of the Contract Documents is to describe the complete Work and to include all items and information necessary for the proper execution and completion of the Work by the Contractor.
- B. Contract Documents are complementary. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor is required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.
- C. No third party contract rights. The Contract Documents shall not create a contractual relationship of any kind (1) between the Port and a Subcontractor of any tier (although the Port does not waive any third-party beneficiary rights it may otherwise have as to Subcontractors of any tier), (2) between the Contractor and the Engineer or other Port employees or consultants, or (3) between any persons or entities other than the Port and Contractor.

1.04 CORRELATION OF THE CONTRACT DOCUMENTS

- A. Precedence. In the event of a conflict or discrepancy between or among the Contract Documents, the conflict or discrepancy will be resolved by the following order of precedence: with an addendum or Change Order having precedence over an earlier document, and computed dimensions having precedence over scaled dimensions, and large scale drawings take precedence over small scale drawings:
 1. The signed Agreement
 - a. Supplemental Conditions
 - b. Division 00 General Conditions
 - c. Division 01 General Requirements of Specifications
 - d. All other Specifications, including all remaining divisions, material and system schedules and attachments, and Drawings
 - e. All other sections in Division 00 not specifically identified herein by Section
- B. Inconsistency between or among Contract Documents. If there is any inconsistency between the Drawings, schedules, or Specifications, or any attachments, the Contractor will make an inquiry to the Engineer to determine how to proceed, and, unless otherwise directed, the Contractor will provide the better quality or greater quantity of any work or materials, as reasonably interpreted by the Port, at no change in the Contract Sum or Contract Time. Thus, if Work is shown on Drawings, but not contained in Specifications or schedules, or contained in Specifications or schedules, but not shown on the Drawings, the Work as shown or contained will be provided at no change in the Contract Sum or Contract Time, according to Specifications or Drawings to be issued by the Port.
- C. Inconsistency with law. In the event of a conflict between the Contract Documents and applicable laws, codes, ordinances, regulations, or orders of governmental authorities having jurisdiction over the Work, or in the event of any conflict between such laws, the most stringent requirements govern.
- D. Organization of Contract Documents. The organization of the Specifications and Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the

extent of the Work to be performed. The Port assumes no responsibility for the division and proper coordination of Work between particular Subcontractors.

- E. Bid quantities are estimates only. Any "bid quantities" set forth in the Contract Documents are estimates only. The Port does not warrant that the actual amount of Work will correspond to any estimates. The basis of payment will be the actual quantities performed in accordance with the Contract Documents.

1.05 OWNERSHIP OF THE CONTRACT DOCUMENTS

- A. Port owns all Contract Documents. All Drawings, Specifications, and other Contract Documents furnished to the Contractor are Port property, and the Port retains all intellectual property rights, including copyrights. The Contract Documents are to be used only with respect to the Project.

ARTICLE 2 - PORT OF TACOMA

2.01 AUTHORITY OF THE ENGINEER

- A. Engineer will be Port's representative. The Engineer or the Engineer's designee will be the Port's representative during the Project and will administer the Project on the Port's behalf.
- B. Engineer may enforce all obligations. The Engineer has the authority to enforce all requirements imposed on the Contractor by the Contract Documents.
- C. Only Engineer is agent of Port. Other than the Engineer, no other Port employee or consultant is an agent of the Port, and none are authorized to agree on behalf of the Port to changes in the Contract Sum or Contract Time, nor to waive provisions of the Contract Documents, nor to direct the Contractor to take actions that change the Contract Sum or Contract Time, nor to accept notice of protests or claims on behalf of the Port.

2.02 ADMINISTRATION OF THE CONTRACT

- A. Port will administer Contract. The Port will provide administration of the Contract through the Engineer or the Engineer's designee. All communications with the Port or its consultants related to the Contract will be through the designated representative.
- B. Port not responsible for means and methods. The Port is not responsible for, and will have no control or charge of, the means, methods, techniques, sequences, or procedures of construction, or for safety precautions or programs incidental thereto, because these are the sole responsibility of the Contractor. If the Port makes any suggestion of means, methods, techniques, sequences, or procedures, the Contractor will exercise its independent judgment in deciding whether to adopt the suggestion, except as otherwise provided in the Contract Documents.
- C. Port not responsible for acts or omissions of Contractor or Subcontractors. The Port is not responsible for, and will have no control or charge of, the acts or omissions of the Contractor, Subcontractors of any tier, suppliers, or any of their agents or employees, or any other persons performing a portion of the Work.
- D. Port not responsible for the Work. The Port is not responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The presence of the Engineer or others at the Project site at any time does not relieve the Contractor from its responsibility for non-conforming Work.
- E. Port will have access to the Work. The Port and its representatives will at all times have access to the Work in progress, and the Contractor will provide proper facilities for such access and for inspection.

2.03 INFORMATION PROVIDED BY THE PORT

- A. Port to furnish information with reasonable promptness. The Port shall furnish information and services required of the Port by the Contract Documents with reasonable promptness.
- B. Subsurface investigation. The Port may have undertaken a limited investigation of the soil and other subsurface conditions at the Project site for design purposes only. The results of these investigations will be available for the convenience of the Contractor, but they are not Contract Documents. There is no warranty or guarantee, express or implied, that the conditions indicated are representative of those existing at the site or that unforeseen developments may not occur. The Contractor is solely responsible for interpreting the information.

2.04 CONTRACTOR REVIEW OF PROJECT INFORMATION

- A. Contractor to familiarize itself with site and conditions of Work. Prior to executing the Contract, the Contractor shall visit the site, become generally familiar with local conditions under which the Work is to be performed, and correlate personal observations with the requirements of the Contract Documents and all information provided with the Bid Documents. By signing the Contract, the Contractor confirms that the Contract Sum is reasonable compensation for the Work; that the Contract Time is adequate; that it has carefully examined the Contract Documents and the Project site; and that it has satisfied itself as to the nature, location, and character of the Work, the labor, materials, equipment, and other items required and all other requirements of the Contract Documents. The Contractor's failure fully to acquaint itself with any such condition does not relieve the Contractor from the responsibility for performing the Work in accordance with the Contract Documents, within the Contract Time, and for the Contract Sum.
- B. Contractor to review Contract Documents. Because the Contract Documents are complementary, the Contractor will, before starting each portion of the Work, carefully study and compare the various Drawings, Specifications, and other Contract Documents, as well as all information furnished by the Port.
- C. Contractor to confirm field conditions. Before starting each portion of the Work, the Contractor shall take field measurements of and verify any existing conditions, including all Work in place, and all general reference points; shall observe any conditions at the site affecting the Contractor; and shall carefully compare field measurements, conditions and other information known to the Contractor with the Contract Documents.

2.05 PORT'S RIGHT TO REJECT, STOP, AND/OR CARRY-OUT THE WORK

- A. Port may reject Work. The Port has the authority, but not the obligation, to reject work, materials, and equipment that is defective or that otherwise does not conform to the Contract Documents, and to decide questions concerning the Contract Documents. However, the failure to so reject, or the presence of the Port at the site, shall not be construed as assurance that the Work is acceptable or being completed in compliance with the Contract Documents.
- B. Port may stop Work. If the Contractor fails to correct Work that does not comply with the requirements of the Contract Documents, or repeatedly or materially fails to properly carry out the Work, the Port may issue an order to stop all or a portion of the Work until the cause for the order has been eliminated. The Port's right to stop the Work shall not impose a duty on the Port to exercise this right for the benefit of the Contractor or any third party.
- C. Port may carry-out Work. If the Contractor fails to perform the Work properly, fails to perform any provision of this Contract, or fails to maintain the Baseline Project Schedule, or if the Port reasonably concludes that the Work will not be completed in the specified manner or within the Contract Time, then the Port may, after three (3) days' written notice to the Contractor and without prejudice to any other remedy the Port may have, perform itself or have performed any

or all of the Work and may deduct the cost thereof from any payment then or later due the Contractor.

2.06 SEPARATE CONTRACTORS

- A. Port may engage separate contractors or perform work with its own forces. The Port may contract with other contractors ("Separate Contractor") in connection with the Project or perform work with its own forces. The Contractor shall coordinate and cooperate with any Port forces or Separate Contractors, as applicable. The Contractor shall provide reasonable opportunity for the introduction and storage of materials and the execution of work by others.
- B. Contractor to inspect work of others. If any part of the Contractor's Work depends on the work of the Port or any Separate Contractor, the Contractor shall inspect and promptly report to the Port, in writing, any defects that impact the Contractor. Failure of the Contractor to so inspect and report defects in writing shall constitute an acceptance by Contractor of the work of the Port or Separate Contractor.
- C. Contractor to resolve claims of others. Should the Contractor, or any of its Subcontractors of any tier, cause damage of any kind, including but not limited to delay, to any Separate Contractor, the Contractor shall promptly, and using its best efforts, settle or otherwise resolve the dispute with the Separate Contractor. The Contractor shall also promptly remedy damage caused to completed or partially completed construction.

2.07 OFFICERS AND EMPLOYEES OF THE PORT

- A. No personal liability. Officers, employees, and representatives of the Port, including the Commissioners, acting within the scope of their employment, shall not be personally liable to Contractor for any acts or omissions arising out of the Project.

ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES

3.01 DUTY TO PERFORM THE ENTIRE WORK

- A. Contractor must perform entire Work in accordance with Contract Documents. The Contractor shall perform the entire Work required by the Contract in accordance with the Contract Documents. Unless otherwise specifically provided, the Contractor shall provide and pay for all labor, tools, equipment, materials, electricity, power, water, other utilities, transportation, and other facilities necessary for the execution and completion of the Work.
- B. Contractor shall be independent contractor. The Contractor shall be, and operate as, an independent contractor in the performance of the Work. The Contractor is not authorized to enter into any agreements or undertakings for, or on behalf of, the Port and is not an agent or employee of the Port.

3.02 OBSERVED ERRORS, INCONSISTENCIES, OMISSIONS, OR VARIANCES IN THE CONTRACT DOCUMENTS

- A. Contractor to notify Port of any discrepancy. The Contractor's obligations to review and carefully study the Contract Documents and field conditions are for the purpose of facilitating coordination and construction. If the Contractor at any time observes that the Contract Documents, including Drawings and Specifications, vary from the conditions of the Project site, are in error, or omit any necessary detail, the Contractor shall promptly notify the Engineer in writing through a Request for Information. Any Work done after such observation, until authorized by the Engineer, shall be at Contractor's risk. The Contractor shall also promptly report to the Engineer any observed error, inconsistency, omission, or variance with applicable laws through a Request for Information. If the Contractor fails either to carefully study and compare the Contract Documents, or to promptly report any observed error, inconsistency, omission, or variance, the Contractor shall assume full responsibility and shall bear all costs,

liabilities, and damages attributable to the error, inconsistency, omission, or variance.

- B. Requests for Information. The Contractor shall submit Requests for Information concerning the Contract Documents by following the procedure and using such form as the Port may require. The Contractor shall minimize Requests for Information by thoroughly studying the Contract Documents and reviewing all Subcontractor requests. The Contractor shall allow adequate time in its planning and scheduling for a response from the Port to a Request for Information.
- C. Port may provide information to supplement Drawings and Specifications. Minor items of work or detail that are omitted from the Drawings and Specifications, but inferable from the information presented and normally provided by accepted good practice, shall be provided and/or performed by the Contractor as part of the Contract Sum and within the Contract Time. Similarly, the Engineer may furnish to the Contractor additional Drawings and clarifications, consistent with the Contract Documents, as necessary to detail and illustrate the Work. The Contractor shall conform its Work to such additional Drawings and clarifications at no increase in the Contract Sum or Contract Time.

3.03 SUPERVISION AND RESPONSIBILITY FOR SUBCONTRACTORS

- A. Contractor responsible for Work and workers. The Contractor shall have complete control of the means, methods, techniques, sequences, or procedures related to the Work, and for all safety precautions or programs. The Contractor shall have complete control over, and responsibility for, all personnel performing the Work. The Contractor is also responsible for the acts and omissions of the Contractor's principals, employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors of any tier.
- B. Contractor to supervise the Work. The Contractor shall continuously supervise and direct the Work using competent and skilled personnel and the Contractor's best skill and attention.
- C. Contractor to enforce discipline and good order. The Contractor shall enforce strict discipline and good order among all workers on the Project, and shall not employ any unfit person or anyone not skilled in the work to which they are assigned. Incompetent, careless, or negligent workers shall immediately be removed from the Work. The Port may, but is not obligated to, require the Contractor to remove from the Work, at no change in the Contract Sum or Contract Time, anyone whom the Port considers objectionable.

3.04 MATERIALS AND EQUIPMENT

- A. Material and equipment to be new. All materials and equipment to be incorporated into the Work shall be new, unless specifically provided otherwise in the Contract Documents. The Contractor shall, if required in writing by the Port, furnish satisfactory evidence regarding the kind and quality of any materials, identify the source, and warrant compliance with the Contract Documents. The Contractor shall ensure that all materials and equipment are protected, kept dry, and stored under cover in a manner to protect such materials and equipment.
- B. Material and equipment shall conform to manufacturer instructions. All materials and equipment shall conform, and shall be applied, installed, used, maintained, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processor, unless otherwise specifically provided by the Engineer.

3.05 CONTRACTOR WARRANTIES

- A. Work will be of good quality and performed in workmanlike manner. In addition to any specific warranties set forth in the Contract Documents, the Contractor warrants that the Work, including all materials and equipment furnished under the Contract, will be of good quality and new, will be performed in a skillful and workmanlike manner, and will conform to the requirements of the Contract Documents. Any Work not conforming to this warranty, including unapproved or

unauthorized substitutions, shall be considered defective.

- B. Work will be free from defects. The Contractor warrants that the Work will be free from defects for a period of one (1) year from the date of Substantial Completion of the Project.
- C. Contractor to collect and deliver warranties to Port. The Contractor shall collect and deliver to the Port any written warranties required by the Contract Documents. These warranties shall be obtained and enforced by the Contractor for the benefit of the Port without the necessity of separate assignment. These warranties shall extend to the Port all rights, claims, benefits, and interests that the Contractor may have under express or implied warranties or guarantees against a Subcontractor of any tier, supplier, or manufacturer for defective or non-conforming Work. Warranty provisions that purport to limit or alter the Port's rights under the Contract Documents, or the laws of the State of Washington, are null and void.
- D. General requirements. The Contractor is not relieved of its general warranty obligations by the specification of a particular product or procedure in the Contract Documents. Warranties in the Contract Documents shall survive completion, acceptance, and final payment.

3.06 REQUIRED WAGES

- A. Contractor will pay required wages. The Contractor shall pay (and shall ensure that all Subcontractors of any tier pay) all prevailing wages and other wages (such as Davis-Bacon Act wages) applicable to the Project. See Specification Section 00 73 46.
- B. The Contractor shall defend (at Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold the Port harmless from all liabilities, obligations, claims, demands, damages, disbursements, lawsuits, losses, fines, penalties, costs, and expenses, whether direct or indirect, and including, but not limited to, attorneys' fees and consultants' fees and other costs and expenses of litigation, from any violation or alleged violation by the Contractor or any Subcontractor of any tier of RCW 39.12 ("Prevailing Wages on Public Works") or Chapter 51 RCW ("Industrial Insurance").

3.07 STATE AND LOCAL TAXES

- A. Contractor will pay taxes on consumables. The Contractor will pay the retail sales tax on all consumables used during performance of the Work and on all items that are not incorporated into the final Work; this tax shall be included in the Contract Sum.
- B. Port will pay taxes on the Contract Sum. The Port will pay state and local retail sales tax on the Contract Sum with each progress payment, and on final payment, for transmittal by the Contractor to the Washington State Department of Revenue or to the applicable local taxing authority. Rule 170: WAC 458-20-170.
- C. Direct all tax questions to the Department of Revenue. The Contractor should direct all questions concerning taxes on any portion of the Work to the State of Washington Department of Revenue or to the local taxing authority.
- D. State Sales Tax - Rule 171: WAC 458-20-171. For work performed related to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used, primarily, for foot or vehicular traffic, the Contractor shall include Washington State Retail Sales Taxes in the various schedule prices, or other contract amounts, including those that the Contractor pays on the purchase of materials, equipment, or supplies used or consumed in doing the Work.
 - 1. The bid form will indicate which bid items are subject to Rule 171. Any such identification by the Port is not binding upon the Department of Revenue.

3.08 PERMITS, LICENSES, FEES, AND ROYALTIES

- A. Contractor to provide and pay for permits unless otherwise specified. Unless otherwise specified, the Contractor shall procure and pay for all permits, licenses, and governmental inspection fees necessary or incidental to the performance of the Work. All costs related to these permits, licenses, and inspections shall be included in the Contract Sum. Any action taken by the Port to assist the Contractor in obtaining permits or licenses shall not relieve the Contractor of its sole responsibility to obtain and pay for permits, licenses, and inspections as part of the Contract Sum.
- B. Contractor's obligations when permit must be in Port's name. When applicable law or agency requires a permit to be issued to a public agency, the Port will support the Contractor's request for the permit and accept the permit in the Port's name, if:
 1. The Contractor takes all necessary steps required for the permit to be issued;
 2. The permit applies to Work performed in connection with the Project; and
 3. The Contractor agrees in writing to abide by all requirements of the permit and to defend and hold harmless the Port from any liability in connection with the permit.
- C. Contractor to pay royalties. The Contractor shall pay all royalties and license fees required for the Work unless otherwise specified in the Contract Documents.

3.09 SAFETY

- A. Contractor solely responsible for safety. The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work and the performance of the Contract.
- B. Port not responsible for safety. The Port may identify safety concerns to the Contractor; however, no action or inaction of the Port or any third party relating to safety will: (1) relieve the Contractor of its sole and complete responsibility for safety and sole liability for any consequences, (2) impose any obligation on the Port or a third party to inspect or review the Contractor's safety program or precautions, (3) impose any continuing obligation on the Port or a third party to ensure the Contractor performs the Work safely, or (4) affect the Contractor's responsibility for the protection of property, workers, and the general public.
- C. Contractor to maintain a safe Work site. The Project site may be occupied during performance of the Work. The safety of these site occupants is of paramount importance to the Port. The Contractor shall maintain the Work site and perform the Work in a safe manner and in accordance with the Washington Industrial Safety and Health Act (WISHA) and all other applicable safety laws, rules, and regulations. This requirement shall apply continuously and not be limited to working hours.
- D. Contractor to protect Work site and adjacent property until Final Completion. The Contractor shall continuously protect the Work and adjacent property from damage. At all times until Final Completion, the Contractor shall be responsible for, and protect from damage, weather, deterioration, theft, and vandalism, the Work and all materials, equipment, tools, and other items incorporated or to be incorporated in the Work, and shall repair any damage, injury, or loss.

3.10 CORRECTION OF WORK

- A. Contractor to correct defective Work. The Contractor shall, at no cost to the Port, promptly correct Work that is defective or that otherwise fails to conform to the requirements of the Contract Documents. Such Work shall be corrected, whether before or after Substantial Completion, and even if it was previously inspected or observed by the Port.

- B. One-year correction period. The Contractor shall correct all defects in the Work appearing within one (1) year of Substantial Completion or within any longer period prescribed by law or by the Contract Documents. The Contractor shall initiate remedial action within fourteen (14) days of receipt of notice from the Port and shall complete remedial work within a reasonable time. Work corrected by the Contractor shall be subject to the provisions of this Section 3.10 for an additional one-year period following the Port's acceptance of the corrected Work.
- C. Contractor responsible for defects and failures to correct. The Contractor shall be responsible for any expenses incurred by the Port resulting from defects in the Work. If the Contractor refuses or neglects to correct the defects, or does not timely accomplish corrections, the Port may correct the Work and charge the Contractor the cost of the corrections. If damage or loss of service may result from a delay in correction, the corrections may be made by the Port and reimbursed by the Contractor.
- D. Port may accept defective work. The Port may, at its sole option, elect to retain defective or nonconforming Work. In such a case, the Port shall reduce the Contract Sum by a reasonable amount to account for the defect or non-conformance.
- E. No period of limitation established. Nothing contained in this Section 3.10 establishes a period of limitation with respect to any obligations under the Contract Documents or law. The establishment of the one (1) year correction period relates only to the specific obligation of the Contractor to correct defective or non-conforming Work.

3.11 UNCOVERING OF WORK

- A. Contractor to uncover work covered prior to inspection. If any portion of the Work is covered prior to inspection and approval, the Contractor shall, at its expense, uncover or remove the Work for inspection by the Port or others, and replace the Work to the standard required by the Contract Documents.
- B. Contractor to uncover work at Port's request. After initial inspection and observation, the Port may order a reexamination of Work, and the Work must be uncovered by the Contractor. If the uncovered Work complies with the Contract Documents, the Port shall pay the cost of reexamination and replacement. If the Work is found not to comply with the Contract Documents, the Contractor shall pay the cost of replacement, unless the Contractor demonstrates that it did not cause the defect in the Work.

3.12 RELOCATION OF UTILITIES

- A. Contractor should assume underground utilities are in approximate locations. The Contractor should assume that the locations of any underground or hidden utilities, underground tanks, and plumbing or electrical runs indicated in surveys or the Contract Documents are shown in approximate locations. The accuracy of this information is not guaranteed by the Port and shall be verified by the Contractor. The Contractor shall comply with RCW 19.122.030 and utilize a utility locator service to locate utilities on Port property. The Contractor shall bear the risk of loss if any of its Work directly or indirectly damages or interrupts any utility service or causes or contributes to damages of any nature.
- B. Utility relocation or removal. Where relocation or removal of utilities is necessary or required, it shall be performed at the Contractor's sole expense, unless the Contract Documents specify otherwise. If a utility owner is identified as being responsible for relocating or removing utilities, the work will be accomplished at the utility owner's convenience, either during, or in advance of, construction. Unless otherwise specified, it shall be the Contractor's sole responsibility to coordinate, schedule, and pay for work performed by a utility owner.

C. Contractor to notify Port of unknown utilities. If the Contractor discovers the presence of any unknown utilities, it shall immediately notify the Engineer in writing.

3.13 LABOR

- A. Contractor responsible for labor peace. The Contractor is responsible for labor peace relating to the Work and shall cooperate in maintaining Project-wide labor harmony. The Contractor shall use its best efforts as an experienced contractor to adopt and implement policies and practices designed to avoid work stoppages, slowdowns, disputes, or strikes.
- B. Contractor to minimize impact of labor disputes. The Contractor will take all necessary steps to prevent labor disputes from disrupting or otherwise interfering with access to Port property. If a labor dispute disrupts the progress of the Work or interferes with access, the Contractor shall promptly and expeditiously take all necessary action to eliminate or minimize the disruption or interference.

3.14 INDEMNIFICATION

- A. Duty to defend, indemnify, and hold harmless. To the fullest extent permitted by law and subject to this Section 3.14, the Contractor shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold harmless the Port and the Northwest Seaport Alliance, including their respective Commissions, officers, managers, and employees, the Engineer, any consultants, and the agents and employees, successors and assigns of any of them (the "Indemnified Parties") from and against claims, damages, lawsuits, losses (including loss of use), disbursements, liabilities, obligations, fines, penalties, costs, and expenses, whether direct and indirect or consequential, including but not limited to, consultants' fees, and attorneys' fees incurred on such claims and in proving the right to indemnification ("Claims"), arising out of, or resulting from, the acts or omissions of the Contractor, a Subcontractor of any tier, their agents, and anyone directly or indirectly employed by any of them or anyone for whose acts they may be liable (individually and collectively, the "Indemnitor").
- B. Duty to defend, indemnify, and hold harmless for sole negligence. The Contractor will fully defend, indemnify, and hold harmless the Indemnified Parties for the sole negligence or willful misconduct of the Indemnitor.
- C. Duty to defend, indemnify, and hold harmless for concurrent negligence. Where Claims arise from the concurrent negligence of (1) the Port; and (2) the Indemnitor, the Contractor's obligations to indemnify and defend the Indemnified Parties under this Section 3.14 shall be effective only to the extent of the Indemnitor's negligence.
- D. Duty to indemnify not limited by workers' compensation or similar employee benefit acts. In claims against any of the Indemnified Parties by an employee of the Contractor, a Subcontractor of any tier, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under this Section 3.14 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefit acts. After mutual negotiation of the parties, the Contractor waives immunity as to the Indemnified Parties under Title 51 RCW, "Industrial Insurance."
- E. Intellectual property indemnification. The Contractor will be liable for and shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold the Indemnified Parties harmless for Claims for infringement by the Contractor of copyrights or patent rights arising out of, or relating to, the Project.
- F. Labor peace indemnification. If the Contractor fails to satisfy its labor peace obligations under the Contract, the Contractor will be liable for and shall defend (at the Contractor's sole cost, with

legal counsel approved by Port), indemnify, and hold harmless the Indemnified Parties for Claims brought against the Port by third parties (including but not limited to lessees, tenants, contractors, customers, licensees, and invitees of the Port) for injunctive relief or monetary loss.

- G. Cyber risk indemnification. Contractor shall defend, indemnify, and hold harmless the Indemnified Parties from and against any liability, expense, fines, penalties, cost, demand, or other obligation, resulting from or out of any cyber-related risk that includes theft, loss or misuse of data, release of private information as result of a network breach, penetration, compromise, or loss of IT systems control.
- H. Joinder. The Contractor agrees to being added by the Port as a party to any arbitration or litigation with third parties in which the Port alleges indemnification or seeks contribution from the Indemnitor. The Contractor shall cause each of its Subcontractors of any tier to similarly stipulate in their subcontracts; in the event any does not, the Contractor shall be liable in place of such Subcontractor(s) of any tier.
- I. Other. To the extent that any portion of this Section 3.14 is stricken by a court or arbitrator for any reason, all remaining provisions shall retain their vitality and effect. The obligations of the Contractor under this Section 3.14 shall not be construed to negate, abridge, or otherwise reduce any other right or obligations of indemnity which would otherwise exist. To the extent the wording of this Section 3.14 would reduce or eliminate an available insurance coverage, it shall be considered modified to the extent necessary so that the insurance coverage is not affected. This Section 3.14 shall survive completion, acceptance, final payment, and termination of the Contract.

3.15 WAIVER OF CONSEQUENTIAL DAMAGES

- A. Mutual waiver of consequential damages. The Contractor and Port waive claims against each other for consequential damages arising out of, or relating to, this Contract. This mutual waiver includes, but is not limited to: (1) damages incurred by the Port for rental expenses, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons, and (2) damages incurred by the Contractor for principal and home office overhead and expenses including, but not limited to, the compensation of personnel stationed there, for losses of financing, business, and reputation, for losses on other projects, for loss of profit, and for interest or financing costs. This mutual waiver includes, but is not limited to, all consequential damages due to either party's termination.
- B. Limitation. Nothing contained in this Section 3.15; however, shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents, to preclude damages specified in the Agreement, or to affect the Contractor's obligation to indemnify the Port for direct, indirect, or consequential damages alleged by a third party.

ARTICLE 4 - SUBCONTRACTORS AND SUPPLIERS

4.01 RESPONSIBILITY FOR ACTIONS OF SUBCONTRACTORS AND SUPPLIERS.

- A. Contractor responsible for Subcontractors. The Contractor is fully responsible to the Port for the acts and omissions of its Subcontractors of any tier and all persons either directly or indirectly employed by the Contractor or its Subcontractors.

4.02 AWARD OF CONTRACTS TO SUBCONTRACTORS AND SUPPLIERS

- A. Contractor to provide proposed Subcontractor information. The Contractor, within ten (10) days after the Port's notice of award of the Contract, shall provide the Engineer with the names of the persons or entities proposed to perform each of the principal portions of the Work (i.e., either a Subcontractor listed in a bid or proposal or a Subcontractor performing Work valued at least ten

percent (10%) of the Contract Sum) and the proprietary names, and the suppliers of, the principal items or systems of materials and equipment proposed for the Work. No progress payment will become due until after this information has been furnished.

- B. Port to respond promptly with objections. The Port may respond promptly to the Contractor in writing stating: (1) whether the Port has reasonable objection to any proposed person or entity, or (2) whether the Port requires additional time for review. If the Port makes a reasonable objection, the Contractor shall replace the Subcontractor with no increase to the Contract Sum or Contract Time. Such a replacement shall not relieve the Contractor of its responsibility for the performance of the Work and compliance with all of the requirements of the Contract within the Contract Sum and Contract Time.
- C. Reasonable objection defined. "Reasonable objection" as used in this Section 4.02 includes, but is not limited to: (1) a proposed Subcontractor of any tier different from the entity listed with the bid, (2) lack of "responsibility" of the proposed Subcontractor, as defined by Washington law and the Bidding Documents, or lack of qualification or responsibility of the proposed Subcontractor based on the Contract or Bidding Documents, or (3) failure of the Subcontractor to perform satisfactorily in the Port's opinion (such as causing a material delay or submitting a claim that the Port considers inappropriate) on one or more projects for the Port within five (5) years of the bid date.
- D. No substitution allowed without permission. The Contractor shall not substitute a Subcontractor, person, or organization without the Engineer's written consent.

4.03 SUBCONTRACTOR AND SUPPLIER RELATIONS

- A. Contractor to schedule, supervise, and coordinate Subcontractors. The Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors of any tier, including suppliers. The Contractor shall ensure that appropriate Subcontractors coordinate the Work of lower-tier Subcontractors.
- B. Subcontractors to be bound to Contract Documents. By appropriate agreement, the Contractor shall require each Subcontractor and supplier to be bound to the terms of the Contract Documents and to assume toward the Contractor, to the extent of their Work, all of the obligations that the Contractor assumes toward the Port under the Contract Documents. Each subcontract shall preserve and protect the rights of the Port and shall allow to the Subcontractor, unless specifically provided in the subcontract, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Port. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with lower-tier Subcontractors.
- C. Contractor to correct deficiencies in Subcontractor performance. When a portion of the Work subcontracted by the Contractor is not being prosecuted in accordance with the Contract Documents, or if such subcontracted Work is otherwise being performed in an unsatisfactory manner in the Port's opinion, the Contractor shall, on its own initiative or upon the written request of the Port, take immediate steps to correct the deficiency or remove the non-performing party from the Project. The Contractor shall replace inadequately performing Subcontractors upon request of the Port at no change in the Contract Sum or Contract Time.
- D. Contractor to provide subcontracts. Upon request, the Contractor will provide the Port copies of written agreements between the Contractor and any Subcontractor.

ARTICLE 5 - WORKFORCE AND NON-DISCRIMINATION REQUIREMENTS

5.01 COMPLIANCE WITH NON-DISCRIMINATION LAWS

- A. Contractor to comply with non-discrimination laws. The Contractor shall fully comply with all applicable laws, regulations, and ordinances pertaining to non-discrimination.

5.02 MWBE, VETERAN-OWNED, AND SMALL BUSINESS ENTERPRISE PARTICIPATION.

- A. In accordance with the legislative findings and policies set forth in RCW 39.19, the Port encourages participation in all of its contracts by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this invitation or as a subcontractor to a Bidder. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the Contract Documents, no preference will be included in the evaluation of Bids, no minimum level of MWBE participation shall be required as a condition for receiving an award, and Bids will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the Contract Documents will apply.

The Port encourages participation in all of its contracts by Veteran-owned businesses (defined in RCW 43.60.010) and located at <http://www.dva.wa.gov/program/certified-veteran--and-servicemember-owned-businesses> and Small, Mini, and Micro businesses (defined in RCW 39.26.010)

5.03 APPRENTICESHIP PARTICIPATION

- A. In accordance with RCW 39.04.320, fifteen (15) percent Apprenticeship Participation is required for all projects estimated to cost one million (\$1,000,000) dollars or more.
- B. Apprentice participation, under this contract, may be counted towards the required percentage (%) only if the apprentices are from an apprenticeship program registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-05).
- C. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 by phone at (360) 902-5320, or e-mail at Apprentice@lni.wa.gov, to obtain information on available apprenticeship programs.
- D. For each project that has apprentice requirements, the contractor shall submit a "Statement of Apprentice and Journeyman Participation" on forms provided by the Port of Tacoma, with every request for project payment. The Contractor shall submit consolidated and cumulative data collected by the Contractor and collected from all subcontractors by the Contractor. The data to be collected and submitted includes the following:
 1. Contractor name and address
 2. Contract number
 3. Project name
 4. Contract value
 5. Reporting period "Beginning Date" through "End Date"
 6. Name and registration number of each apprentice by contractor
 7. Total number of apprentices and labor hours worked by them, categorized by trade or craft.
 8. Total number of journeymen and labor hours worked by them, categorized by trade or craft

9. Cumulative combined total of apprentice and journeymen labor hours
10. Total percentage of apprentice hours worked

E. No changes to the required percentage (%) of apprentice participation shall be allowed without written approval of the Port. In any request for the change, the Contractor shall clearly demonstrate a good faith effort to comply with the requirements for apprentice participation.

ARTICLE 6 - CONTRACT TIME AND COMPLETION

6.01 CONTRACT TIME

- A. Contract Time is measured from Contract execution. Unless otherwise provided in the Agreement, the Contract Time is the period of time, including authorized adjustments, specified in the Contract Documents from the date the Contract is executed to the date Substantial Completion of the Work is achieved.
- B. Commencement of the Work. The Contractor shall begin Work in accordance with the notice of award and the notice to proceed and shall complete all Work within the Contract Time. When the Contractor's signed Agreement, required insurance certificate with endorsements, bonds, and other submittals required by the notice of award have been accepted by the Port, the Port will execute the Contract and, following receipt of other required pre-work submittals, will issue a notice to proceed to allow the Contractor to mobilize and commence physical Work at the Project site, as further described in these contract documents. No Work at the Project site may commence until the Port issues a notice to proceed.
- C. Contractor shall achieve specified completion dates. The Contractor shall achieve Substantial Completion within the Contract Time and shall achieve Final Completion within the time period thereafter stated in the Contract Documents.
- D. Time is of the essence. Time limits stated in the Contract Documents, including any interim milestones, are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

6.02 PROGRESS AND COMPLETION

- A. Contractor to maintain schedule. The Contractor's sequence and method of operations, application of effort, and work force shall at all times be created and implemented to ensure the orderly, expeditious, and timely completion of the Work and performance of the Contract. The Contractor shall furnish sufficient forces and shall work such hours, including extra shifts, overtime operations, and weekend and holiday work as may be necessary to ensure completion of the Work within the Contract Time and the approved Baseline Project Schedule.
- B. Contractor to take necessary steps to meet schedule. If the Contractor fails substantially to perform in a timely manner in accordance with the Contract Documents and, through the fault of the Contractor or Subcontractor(s) of any tier, fails to meet the Baseline Project Schedule, the Contractor shall take such steps as may be necessary to immediately improve its progress by increasing the number of workers, shifts, overtime operations, or days of work, or by other means and methods, all without additional cost to the Port. If the Contractor believes that any action or inaction of the Port constitutes acceleration, the Contractor shall immediately notify the Port in writing and shall not accelerate the Work until the Port either directs the acceleration in writing or denies the constructive acceleration.
- C. Liquidated damages not exclusive. Any provisions in the Contract Documents for liquidated damages shall not preclude other damages due to breaches of Contract of the Contractor.

6.03 SUBSTANTIAL COMPLETION

- A. Substantial Completion defined. Substantial Completion is the stage in the progress of the Work, or portion or phase thereof, when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Port can fully occupy or utilize the Work, or the designated portion thereof, for its intended use, all requirements in the Contract Documents for Substantial Completion have been achieved, and all required documentation has been properly submitted to the Port in accordance with the Contract Documents. All Work, other than incidental corrective or punch list Work and final cleaning, must be completed. The fact that the Port may occupy the Work or a designated portion thereof does not indicate that Substantial Completion has occurred or that the Work is acceptable in whole or in part.
- B. Work not Substantially Complete unless Final Completion attainable. The Work is not Substantially Complete unless the Port reasonably judges that the Work can achieve Final Completion within the period of time specified in the Contract Documents.
- C. Notice of Substantial Completion. When the Work or designated portion has achieved Substantial Completion, the Port will provide a notice to establish the date of Substantial Completion. The notice shall establish responsibilities of the Port and Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall finish all remaining Work. If the notice of Substantial Completion does not so state, all responsibility for the foregoing items shall remain with the Contractor until Final Completion.

6.04 COMPLETION OF PUNCH LIST

- A. Contractor shall complete punch list items prior to Final Completion. The Contractor shall cause punch list items to be completed prior to Final Completion. If, after Substantial Completion, the Contractor does not expeditiously proceed to correct punch list items or if the Port considers that the punch list items, are unlikely to be completed prior to the date established for Final Completion (or such other period of time as is specified in the Contract Documents), the Port may, upon seven (7) days' written notice to the Contractor, take over and perform some or all of the punch list items. The Port may also take over and complete any portion of the Work at any time following Substantial Completion and deduct the actual cost of performing the Work (including direct and indirect costs) from the Contract Sum. The Port's rights under this Section 6.04 are not obligations and shall not relieve the Contractor of its responsibilities under any other provisions of the Contract Documents.

6.05 FINAL COMPLETION

- A. Final Completion. Upon receipt of written notice from the Contractor that all punch list items and other Contract requirements are completed, the Contractor will notify the Port, and the Port will perform a final inspection. If the Port determines that some or all of the punch list items have not been addressed, the Contractor shall be responsible to the Port for all costs, including re-inspection fees, for any subsequent reviews to determine completion of the punch list. When the Port determines that all punch list items have been satisfactorily addressed, that the Work is acceptable under the Contract Documents, and that the Work has fully been performed, the Port will promptly notify the Contractor of Final Completion.
- B. Contractor responsible for costs if Final Completion is not timely achieved. In addition to any liquidated damages, the Contractor is liable for, and the Port may deduct from any amounts due the Contractor, all costs incurred by the Port for services performed after the contractual date of Final Completion, whether or not those services would have been performed prior to that date had Final Completion been timely achieved.

- C. Final Completion submittals. The Port is not obligated to accept the Project as complete until the Contractor has submitted all required submittals to the Port.
- D. Contractor responsible for the Work until Final Completion. The Contractor shall assume the sole risk of loss and responsibility for all Work under the Contract, and all materials to be incorporated in the Work, whether in storage or at the Project site, until Final Completion. Damage from any cause to either permanent or temporary Work, utilities, materials, equipment, existing structures, the site, or other property owned by the Port or others, shall be repaired by the Contractor to the reasonable satisfaction of the Port at no change in the Contract Sum.

6.06 FINAL ACCEPTANCE

- A. Final Acceptance. Final Acceptance is the formal action of the Port accepting the Project as complete. Public notification of Final Acceptance will be posted on the Port's external website (<http://www.portoftacoma.com/final-acceptance>).
- B. Final Acceptance not an acceptance of defective Work. Final Acceptance shall not constitute acceptance by the Port of unauthorized or defective Work, and the Port shall not be prevented from requiring the Contractor to remove, replace, repair, or dispose of unauthorized or defective Work or recovering damages due to the same.
- C. Completion of Work under RCW 60.28. Pursuant to RCW 60.28, "Lien for Labor, Materials, Taxes on Public Works," completion of the Contract Work shall occur upon Final Acceptance.

6.07 PORT'S RIGHT TO USE THE PREMISES

- A. Port has right to use and occupy Work. The Port reserves the right to occupy or use any part of the Work before or after Substantial Completion of some or all of the Work without relieving the Contractor of any of its obligations under the Contract. Such occupancy or use shall not constitute acceptance by the Port of any of the Work, and shall not cause any insurance to be canceled or lapse.
- B. No compensation due if Port elects to use and occupy Work. No additional compensation shall be due to the Contractor as a result of the Port's use or occupancy of the Work or a designated portion.

ARTICLE 7 - PAYMENT

7.01 ALL PAYMENTS SUBJECT TO APPLICABLE LAWS AND SCHEDULE OF VALUES

- A. Payment of the Contract Sum. The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Port to the Contractor for performance of the Work under the Contract Documents. Payments made to the Contractor are subject to all laws applicable to the Port and the Contractor. Payment of the Contract Sum constitutes full compensation to the Contractor for performance of the Work, including all risk, loss, damages, or expense of whatever character arising out of the nature or prosecution of the Work. The Port is not obligated to pay for extra work or materials furnished without prior written approval of the Port.
- B. Schedule of Values. All payments will be based upon an approved Schedule of Values. Prior to submitting its first Application for Payment, the Contractor shall submit a Schedule of Values to the Port allocating the entire Contract Sum to the various portions of the Work. The Schedule of Values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Port may require. This schedule, unless objected to by the Port, shall be used as a basis for reviewing the Contractor's applications for payment.

7.02 APPLICATIONS FOR PAYMENT

- A. Applications for Payment. Progress payments will be made monthly for Work duly certified, approved by the Engineer, and performed (based on the Schedule of Values and actual quantities of Work performed) during the calendar month preceding the Application for Payment. These amounts are paid in trust to the Contractor for distribution to Subcontractors to the extent, and in accordance with, the approved Application for Payment.

7.03 PROGRESS PAYMENTS

- A. Progress payments. Following receipt of a complete Application for Payment, the Engineer will either authorize payment or indicate in writing to the Contractor the specific reasons why the payment request is being denied, in whole or in part, and the remedial action the Contractor must take to receive the withheld amount. After a complete Application for Payment has been received and approved by the Port, payment will be made within thirty (30) days. Any payments made by, or through, or following receipt of, payment from third parties will be made in accordance with the third party's policies and procedures.
- B. Port may withhold payment. The Port may withhold payment in whole or in part as provided in the Contract Documents or to the extent reasonably necessary to protect the Port from loss or potential loss for which the Contractor is responsible, including loss resulting from the Contractor's acts and omissions.

7.04 PAYMENT BY CONTRACTOR TO SUBCONTRACTORS

- A. Payment to Subcontractors. With each Application for Payment, the Contractor shall provide a list of Subcontractors to be paid by the Contractor. No payment request shall include amounts the Contractor does not intend to pay to a Subcontractor because of a dispute or other reason. If, however, after submitting an Application for Payment, but before paying a Subcontractor, the Contractor discovers that part or all of a payment otherwise due to the Subcontractor is subject to withholding from the Subcontractor under the subcontract (such as for unsatisfactory performance or non-payment of lower-tier Subcontractors), the Contractor may withhold the amount as allowed under the subcontract, but it shall give the Subcontractor and the Port written notice of the remedial actions that must be taken and pay the Subcontractor within eight (8) working days after the Subcontractor satisfactorily completes the remedial action identified in the notice.
- B. Payment certification to be provided upon request. The Contractor shall provide, with each Application for Payment, a certification signed by Contractor attesting that all payments by the Contractor to Subcontractors from the last Application for Payment were made within ten (10) days of the Contractor's receipt of payment. The certification will also attest that the Contractor will make payment to Subcontractors for the current Application for Payment within ten (10) days of receipt of payment from the Port.

7.05 FINAL PAYMENT

- A. Final payment. Final applications for payment are due within seven (7) days following Final Completion. Final payment of the unpaid balance of the Contract Sum, except retainage, will be made following Final Completion and within thirty (30) days of the Contractor's submission of an approved final Application for Payment.
- B. Releases required for final payment. The final payment shall not become due until the Contractor delivers to the Port a complete release of all liens arising out of the Contract, as well as an affidavit stating that, to the best of Contractor's knowledge, its release includes all labor and materials for which a lien could be filed. If a Subcontractor of any tier refuses to furnish a release or waiver required by the Port, the Port may (a) retain in the fund, account, or escrow funds in such amount as to defray the cost of foreclosing the liens of such claims and to pay

attorneys' fees, the total of which shall be no less than 150% of the claimed amount, or (b) accept a bond from the Contractor, satisfactory to the Port, to indemnify the Port against the lien. If any such lien remains unsatisfied after all payments from the retainage are made, the Contractor shall refund to the Port all moneys that the Port may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

C. Contractor to hold Port harmless from liens. The Contractor shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold harmless the Port from any liens, claims, demands, lawsuits, losses, damages, disbursements, liabilities, obligations, fines, penalties, costs, and expenses, whether direct or indirect, including but not limited to, attorneys' fees and consultants' fees and other costs and expenses, except to the extent a lien has been filed because of the failure of the Port to make a contractually required payment.

7.06 RETAINAGE

A. Retainage to be withheld. In accordance with RCW 60.28, a sum equal to five percent (5%) of each approved Application for Payment shall be retained. Prior to submitting its first Application for Payment, the Contractor shall exercise one of the options listed below:

1. Retained percentages will be retained by the Port in a fund; or
2. Deposited by the Port in an interest-bearing account or escrow account in a bank, mutual savings bank, or savings and loan association designated by the Contractor, not subject to withdrawal until after the final acceptance of said improvement or work as completed, or until agreed to by both parties; provided that interest on such account shall be paid to the Contractor. Contractor to complete and submit Port provided Retainage Escrow Agreement (Section 00 61 23.13); or
3. If the Contractor provides a bond in place of retainage, it shall be in an amount equal to 5% of the Contract Sum plus Change Orders. The retainage bond shall be based on the form furnished in Section 00 61 23 or otherwise acceptable to the Port and duly completed and signed by a licensed surety or sureties registered with the Washington State Insurance Commissioner and on the currently authorized insurance list published by the Washington State Insurance Commissioner. The surety or sureties must be rated at least "A-, FSC(6)" or higher by A.M. Best Rating Guide and be authorized by the Federal Department of the Treasury. Attorneys-in-fact who sign the retainage bond must file with each bond a certified and effective Power of Attorney statement.

B. Contractor may withhold retainage from Subcontractors. The Contractor or a Subcontractor may withhold not more than five percent (5%) retainage from the monies earned by any Subcontractor or lower-tier Subcontractor, provided that the Contractor pays interest to the Subcontractor at the same interest rate it receives from its reserved funds. If requested by the Port, the Contractor shall specify the amount of retainage and interest due a Subcontractor.

C. Release of retainage. Retainage will be withheld and applied by the Port in a manner required by RCW 60.28 and released in accordance with the Contract Documents and statutory requirements. Release of the retainage will be processed in the ordinary course of business within sixty (60) days following Final Acceptance of the Work by the Port provided that no notice of lien has been given as provided in RCW 60.28, that no claims have been brought to the attention of the Port, that the Port has no claims under this Contract, and that release of retention has been duly authorized by the State. The following items must also be obtained prior to release of retainage: pursuant to RCW 60.28, a certificate from the Department of Revenue; pursuant to RCW 50.24, a certificate from the Department of Employment Security; and appropriate information from the Department of Labor and Industries including approved affidavits of wages paid for the Contractor and each subcontractor.

7.07 DISPUTED AMOUNTS

- A. Disputed amounts. If the Contractor believes it is entitled to payment for Work performed during the prior calendar month in addition to the agreed-upon amount, the Contractor may submit to the Port, along with the approved Application for Payment, a separate written payment request specifying the exact additional amount claimed to be due, the category in the Schedule of Values to which the payment would apply, the specific Work for which additional payment is sought, and an explanation of why the Contractor believes additional payment is due.

7.08 EFFECT OF PAYMENT

- A. Payment does not relieve Contractor of obligations. Payment to the Contractor of progress payments or final payment does not relieve the Contractor from its responsibility for the Work or its responsibility to repair, replace, or otherwise make good defective Work, materials, or equipment. Likewise, the making of a payment does not constitute a waiver of the Port's right to reject defective or non-conforming Work, materials, or equipment (even though they are covered by the payment), nor is it a waiver of any other rights of the Port.
- B. Acceptance of final payment waives claims. Acceptance of final payment by the Contractor, a Subcontractor of any tier, or a supplier shall constitute a waiver of claims except those previously made in writing and identified as unsettled in Contractor's final Application for Payment.
- C. Execution of Change Order waives claims. The execution of a Change Order shall constitute a waiver of claims by the Contractor arising out of the Work to be performed or deleted pursuant to the Change Order, except as specifically described in the Change Order.

7.09 LIENS

- A. Contractor to discharge liens. The Contractor shall promptly pay (and secure the discharge of any liens asserted by) all persons properly furnishing labor, equipment, materials, or other items in connection with the performance of the Work including, but not limited to, any Subcontractors of any tier.

ARTICLE 8 - CHANGES IN THE WORK

8.01 CHANGES IN THE WORK

- A. Changes in the Work authorized. Without invalidating the Contract and without notice to the Contractor's surety, the Port may authorize changes in the Work after execution of the Contract, including changes in the Contract Sum or Contract Time. Changes shall occur solely by Change Order, Unilateral Change Directive, or Minor Change in Work. All changes in the Work are effective immediately, and the Contractor shall proceed promptly to perform the change, unless otherwise provided in the Change Order or Directive.
- B. Changes in the Work Defined.
 1. A Change Order is a written instrument signed by the Port and Contractor stating their agreement to a change in the Work and the adjustment, if any, in the Contract Sum and/or Contract Time.
 2. A Unilateral Change Directive is a written instrument issued by the Port to transmit new or revised Drawings, issue additions or modifications to the Contract, furnish other direction and documents adjustment, if any, to the Contract Sum and/or Contract Time. A Unilateral Change Directive is signed only by the Port, without requiring the consent or signature of the Contractor.

3. A Minor Change in the Work is a written order from the Port directing a change that does not involve an adjustment to the Contract Sum or the Contract Time.
- C. Request for Proposal: At any time, the Port may issue a Proposal Request directing the Contractor to propose a change to the Contract Sum and/or Contract Time, if any, based on a proposed change in the Work. The Contractor shall submit a responsive Change Order proposal as soon as possible, and no later than fourteen (14) days after receipt, in which the Contractor specifies in good faith the extent to which the Contract Sum and/or Contract Time would change. All cost components shall be limited to the manner described in Section 8.02(B). If the Contractor fails to timely respond to a Proposal Request, the Port may issue the change as a Unilateral Change Directive.
 1. Fixed price method is default for Contractor Change Order proposal. When the Port has requested that the Contractor submit a Change Order proposal, the Port may specify the basis on which the Contract Sum will be adjusted by the Contractor. The Engineer's preference, unless otherwise indicated, is for changes in the Work to be priced using Lump Sums or Unit Prices or on a time and material (Force Account) basis if unit pricing or lump sums cannot be negotiated or determined. In all instances, however, proposed changes shall include a not-to-exceed price for the change and shall be itemized for evaluation purposes in accordance with Section 8.02(B), as requested by the Engineer.
 2. The Port may accept or reject the Contractor's Change Order proposal, request further documentation, or negotiate acceptable terms with the Contractor. If The Port and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order.
 3. The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment. The Port may reject a proposal, in which case the Port may either not effectuate the change or issue a Unilateral Change Directive. The Port will not make payment to the Contractor for any work until that work has been incorporated into an executed Change Order.
- D. Unforeseen Conditions: If the Contractor encounters conditions at the site that are: (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or any soils reports made available by the Port to the Contractor, or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall immediately provide oral notice to the Engineer before conditions are disturbed, followed within 24 hours by an initial written notice. The Contractor shall submit a detailed proposal no later than seven (7) days following discovery of differing site conditions. The Engineer will promptly investigate these conditions and, if the Engineer determines that they differ materially and cause an increase or decrease in the Contractor's cost or time required for performance of any part of the Work, will establish a change in the Contract Sum or Contract Time, or both, consistent with the requirements of the Contract Documents. If the Contractor disputes the Engineer's determination, the Contractor may proceed as provided in the dispute resolution procedure (Article 11). No increase to the Contract Sum or the Contract Time shall be allowed if the Contractor does not comply with the contractual requirements or if the Contractor knew, or reasonably should have known, of the concealed conditions prior to executing the Contract.

- E. Proceed Immediately: Pending agreement on the terms of the Change Order or upon determination of a differing site condition as defined in 8.01(D), the Engineer may direct Contractor to proceed immediately with the change in the Work. Contractor shall not proceed with any change in the Work until it has obtained the Engineer's written approval and documentation of the following:
 - 1. The scope of work
 - 2. An agreed upon maximum not-to-exceed amount
 - 3. The method of final cost determination
 - 4. Estimated time to complete the changed work
 - 5. As a change in the Work is performed, unless the parties have signed a written Change Order to establish the cost of the change, the Contractor shall maintain an itemized accounting of all costs related to the change based on the categories in Section 8.02(B) and provide such data to the Port upon request. This includes, without limitation, invoices, including freight and express bills, and other support for all material, equipment, Subcontractor, and other charges related to the change and, for material furnished from the Contractor's own inventory, a sworn affidavit certifying the actual cost of such material. Failure to provide data to the Port within seven (7) days of a request constitutes a waiver of any claim. The Port may furnish any material or equipment to the Contractor that it deems advisable, and the Contractor shall have no claim for any costs or fee on such material or equipment.
- F. Procedure for Unilateral Change Directive. Whether or not the Port has rejected a Contractor's proposal, the Port may issue a Unilateral Change Directive and the Contractor shall promptly proceed with the specified Work. If the Contractor disagrees with a Unilateral Change Directive, the Contractor shall advise the Port in writing through a Change Order proposal within seven (7) days of receipt. The Contractor's Change Order proposal shall reasonably specify the reasons for any disagreement and the adjustment it proposes. Without this timely Change Order proposal, the Contractor shall conclusively be deemed to have accepted the Port's proposal.
- G. Payment pending final determination of Force Account work. Pending final determination of the total cost of Force Account Work, and provided that the Work to be performed under Force Account is complete and any reservations of rights have been signed by the Port, the Contractor may request payment for amounts not in dispute in the next Application for Payment accompanied by documentation indicating the parties' agreement. Work done on a Force Account basis must be approved in writing on a daily basis by the Engineer or the Engineer's designee and invoices shall be submitted with an Application for Payment within sixty (60) days of performance of the Work.

8.02 CHANGES IN THE CONTRACT SUM

- A. Port to Decide How Changes are Measured. The Port may elect, in its sole discretion, how changes in the Work will be measured for payment. Change in the Work may be priced on a lump sum basis, through Unit Prices, as Force Account, or by another method documented in the executed Change Order, Unilateral Change Directive, or Minor Change in the Work.
- B. Determination of Cost of Change. The total cost of any change in the Work, including a claim under Article 11, shall not exceed the prevailing cost for the Work in the locality of the Project. In all circumstances, the change in the Work shall be limited to the reasonable, actual cost of the following components:
 - 1. Direct labor costs: These are the actual labor costs determined by the number of additional craft hours at their normal hourly rate necessary to perform a change in the Work. The

hourly cost of labor will be based upon the following:

- a. Basic wages and fringe benefits: The hourly wage (without markup or labor burden) and fringe benefits paid by the Contractor as established by the Washington Department of Labor and Industries or contributed to labor trust funds as itemized fringe benefits, whichever is applicable, not to exceed that specified in the applicable "Intent to Pay Prevailing Wage," for the laborers, apprentices, journeymen, and foremen performing or directly supervising the change in the Work on site. These wages do not include the cost of Contractor's project manager or superintendent or above, and the premium portion of overtime wages is not included unless pre-approved in writing by the Port. Costs paid or incurred by the Contractor for vacations, per diem, subsistence, housing, travel, bonuses, stock options, or discretionary payments to employees are not separately reimbursable. The Contractor shall provide to the Port copies of payroll records, including certified payroll statements for itself and Subcontractors of any tier, upon the Port's request.
- b. Workers' insurance: Direct contributions to the State of Washington as industrial insurance; medical aid; and supplemental pension by class and rates established by the Washington Department of Labor and Industries.
- c. Federal insurance: Direct contributions required by the Federal Insurance Compensation Act (FICA); Federal Unemployment Tax Act (FUTA); and State Unemployment Compensation Act (SUCA).

2. Direct material costs: This is an itemization, including material invoices, of the quantity and actual cost of additional materials necessary to perform the change in the Work. The cost will be the net cost after all discounts or rebates, freight costs, express charges, or special delivery costs, when applicable. No lump sum costs will be allowed unless approved in advance by the Port.
3. Construction equipment usage costs: This is an itemization of the actual length of time that construction equipment necessary and appropriate for the Work is used solely on the changed Work times the applicable rental cost as established by the lower of the local prevailing rates published in www.equipmentwatch.com, as modified by the AGC/WSDOT agreement, or the actual rate paid to an unrelated third party. If more than one rate is applicable, the lowest available rate will be utilized. Rates and quantities of equipment rented that exceed the local fair market rental costs shall be subject to the Port's prior written approval. Total rental charges for equipment or tools shall not exceed 75% of the fair market purchase value of the equipment or the tool. Actual, reasonable mobilization costs are permitted if the equipment is brought to the site solely for the change in the Work. Mobilization and standby costs shall not be charged for equipment already present on the site.

The rates in effect at the time of the performance of the changed Work are the maximum rates allowable for equipment of modern design, and in good working condition, and include full compensation for furnishing all fuel, oil, lubrication, repairs, maintenance, and insurance. No gas surcharges are payable. Equipment not of modern design and/or not in good working condition will have lower rates. Hourly, weekly, and/or monthly rates, as appropriate, will be applied to yield the lowest total cost.

4. Subcontractor costs: These are payments the Contractor makes to Subcontractors for changed Work performed by Subcontractors. The Subcontractors' cost of changed Work shall be determined in the same manner as prescribed in this Section 8.02 and, among other things, shall not include consultant costs, attorneys' fees, or claim preparation expenses.

5. Service provider costs: These are payments the Contractor makes to service providers for changed Work performed by service providers. The service providers' cost of changed Work shall be determined in the same manner as prescribed in this Section 8.02.
6. Markup: This is the maximum total amount for overhead, profit, and other costs, including office, home office and site overhead (including purchasing, project manager, superintendent, project engineer, estimator, and their vehicles and clerical assistants), taxes (except for sales tax on the Contract Sum), warranty, safety costs, printing and copying, layout and control, quality control/assurance, small or hand tools (a tool that costs \$500 or less and is normally furnished by the performing contractor), preparation of as-built drawings, impact on unchanged Work, Change Order and/or claim preparation, and delay and impact costs of any kind (cumulative, ripple, or otherwise), added to the total cost to the Port of any Change Order work. No markup shall be due, however, for direct settlements of Subcontractor claims by the Port after Substantial Completion. The markup shall be limited in all cases to the following schedule:
 - a. Direct labor costs -- 20% markup on the direct cost of labor for the party (Contractor or Subcontractor) providing labor related to the change in the Work;
 - b. Direct material costs -- 20% markup on the direct cost of material for the party (Contractor or Subcontractor) providing material related to the change in the Work;
 - c. Construction equipment usage costs -- 10% markup on the direct cost of equipment for the party (Contractor or Subcontractor) providing equipment related to the change in the Work;
 - d. Contractor markup on Subcontractor costs -- 10% markup for the Contractor on the direct cost (excluding markup) of a change in the Work performed by Subcontractors (and for Subcontractors, for a change in the Work performed by lower-tier Subcontractors); and
 - e. Service provider costs -- 5% markup for the Contractor on the direct cost (excluding markup) of a change in the Work performed by service providers.

The total summed markup of the Contractor and all Subcontractors of any tier shall not exceed 30% of the direct costs of the change in the Work. If the markup would otherwise exceed 30%, the Contractor shall proportionately reduce the markup for the Contractor and all Subcontractors of any tier.

7. Cost of change in insurance or bond premium. This is defined as:
 - a. Contractor's liability insurance: The actual cost (expressed as a percentage submitted with the certificate of insurance provided under the Contract Documents and subject to audit) of the Contractor's liability insurance arising directly from the changed Work; and
 - b. Public works bond: The actual cost (expressed as a percentage submitted under the Contract Documents and subject to audit) of the Contractor's performance and payment bond arising directly from the changed Work.

Upon request, the Contractor shall provide the Port with supporting documentation from its insurer or surety of any associated cost incurred. The cost of the insurance or bond premium together shall not exceed 2.0% of the cost of the changed Work.

8. Unit Prices. If Unit Prices are specified in the Contract Documents or established by agreement of the parties for certain Work, the Port may apply them to the changed Work. Unit Prices shall include pre-agreed rates for material quantities and shall include reimbursement for all direct and indirect costs of the Work, including overhead, profit,

bond, and insurance costs arising out of, or related to, the Unit Priced item. Quantities must be supported by field measurement statements signed by the Port, and the Port shall have access as necessary for quantity measurement. The Port shall not be responsible for not-to-exceed limit(s) without its prior written approval.

8.03 CHANGES IN THE CONTRACT TIME

- A. Extension of the Contract Time. If the Contractor is delayed at any time in the commencement or progress of the Work by events for which the Port is responsible, by unanticipated abnormal weather (subject to Section 8.03(E) below), or by other causes not the fault or responsibility of the Contractor that the Port determines may justify a delay in the Contract Time, then the Contract Time shall be extended by Change Order for such reasonable time as the Port may determine. In no event, however, shall the Contractor be entitled to any extension of time absent proof of: (1) delay to an activity on the critical path of the Project, or (2) delay transforming an activity to the critical path, so as to actually delay the anticipated date of Substantial Completion.
- B. Allocation of responsibility for delay not caused by Port or Contractor. If a delay was not caused by the Port, the Contractor, or anyone acting on behalf of any of them, the Contractor is entitled only to an increase in the Contract Time but not an increase in the Contract Sum.
- C. Allocation of responsibility for delay caused by Port. If a delay was caused by the Port or someone acting on behalf of the Port and affected the critical path, the Contractor shall be entitled to a change in the Contract Time and Contract Sum in accordance with Section 8.02. The Contractor shall not recover damages, an equitable adjustment, or an increase in the Contract Sum or Contract Time from the Port; however, where the Contractor could reasonably have avoided the delay. The Port is not obligated directly or indirectly for damages for any delay suffered by a Subcontractor of any tier that does not increase the Contract Time.
- D. Allocation of responsibility for delay caused by Contractor. If a delay was caused by the Contractor, a Subcontractor of any tier, or anyone acting on behalf of any of them, the Contractor is not entitled to an increase in the Contract Time or in the Contract Sum.
- E. Adverse weather. If adverse weather is identified as the basis for a claim for additional time, the claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not reasonably have been anticipated and had an adverse effect on the critical path of construction, and that the Work was on schedule (or not behind schedule through the fault of the Contractor) at the time the adverse weather conditions occurred. Neither the Contract Time nor the Contract Sum will be adjusted for normal inclement weather. For a claim based on adverse weather, the Contractor shall be eligible only for a change in the Contract Time (but not a change in the Contract Sum) if the Contractor can substantiate that there was significantly greater than normal inclement weather considering the full term of the Contract Time.
- F. Damages for delay. In the event the Contractor (including any Subcontractors of any tier) is held to be entitled to damages from the Port for delay beyond the amount permitted in Section 8.02(B), the total combined damages to the Contractor and any Subcontractors of any tier for each day of delay shall be limited to the reasonable, actual costs of the delay for which the Port is wholly responsible. The limitation on damages set forth in this Section does not apply to any damages arising exclusively from delay to which the Contractor is entitled to recover under Section 8.03(F).
- G. Limitation on damages. The Contractor shall not be entitled to damages arising out of loss of efficiency; morale, fatigue, attitude, or labor rhythm; constructive acceleration; home office overhead; expectant under run; trade stacking; reassignment of workers; rescheduling of Work, concurrent operations; dilution of supervision; learning curve; beneficial or joint occupancy;

logistics; ripple; season change; extended or increased overhead or general conditions; profit upon damages for delay; impact damages including cumulative impacts; or similar damages. Any effect that such alleged costs may have upon the Contractor or its Subcontractors of any tier is fully compensated through the markup on Change Orders paid through Section 8.02(B).

8.04 RESERVATION OF RIGHTS

- A. Reservations of rights void unless signed by Port. Reservations of rights will be deemed waived and are void unless any reserved rights are described in detail and are signed by the Contractor and the Port.
- B. Procedure for unsigned reservations of rights. If the Contractor adds a reservation of rights not signed by the Port to any Change Order, Unilateral Change Directive, Change Order proposal, Application for Payment, or any other document, all amounts and all Work therein shall be considered disputed and not payable until costs are re-negotiated or the reservation is withdrawn or changed in a manner satisfactory to, and signed by, the Port. If the Port makes payment based on a document that contains a reservation of rights not signed by the Port, and if the Contractor cashes such payment, then the reservation of rights shall be deemed waived, withdrawn, and of no effect.

8.05 UNIT PRICES

- A. Adjustment to Unit Prices. If Unit Prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed (less than eighty percent (80%) or more than one hundred and twenty percent (120%) of the quantity estimated) so that application of a Unit Price would be substantially unfair, the applicable Unit Price but not the Contract Time, shall be adjusted if the Port prospectively approves a Change Order revising the Unit Price.
- B. Procedure to change Unit Prices. The Contractor or Port may request a Change Order revising a Unit Price by submitting information to support the change. A proposed change to a Unit Price will be evaluated by the Port based on the change in cost resulting solely from the change in quantity, any change in production rate or method as compared to the original plan, and the share, if any, of fixed expenses properly chargeable to the item. If the Port and Contractor agree on the change, a Change Order will be executed. If the parties cannot agree, the Contractor shall comply with the dispute resolution procedures (Article 11).

ARTICLE 9 - SUSPENSION AND TERMINATION OF CONTRACT

9.01 PORT'S RIGHT TO SUSPEND WORK

- A. Port may suspend the Work. The Port may at any time suspend the Work, or any part thereof, by giving notice to the Contractor. The Work shall be resumed by the Contractor as soon as possible, but no later than fourteen (14) days after the date fixed in a notice to resume the Work. The Port shall reimburse the Contractor for appropriate and reasonable expenses consistent with Section 8.02 incurred by the Contractor as a result of the suspension, except where a suspension is the result of the Contractor repeatedly or materially failing to carry out or correct the Work in accordance with the Contract Documents, and the Contractor shall take all necessary steps to minimize expenses.
- B. Contractor obligations. During any suspension of Work, the Contractor shall take every precaution to prevent damage to, or deterioration of, the Work. The Contractor shall be responsible for all damage or deterioration to the Work during the period of suspension and shall, at its sole expense, correct or restore the Work to a condition acceptable to the Port prior to resuming Work.

9.02 TERMINATION OF CONTRACT FOR CAUSE BY THE PORT

- A. Port may terminate for cause. If the Contractor is adjudged bankrupt or makes a general assignment for the benefit of the Contractor's creditors, if a receiver is appointed due to the Contractor's insolvency, or if the Contractor, in the opinion of the Port, persistently or materially refuses or fails to supply enough properly skilled workmen or materials for proper completion of the Contract, fails to make prompt payment to Subcontractors or suppliers for material or labor, disregards laws, ordinances, or the instructions of the Port, fails to prosecute the Work continuously with promptness and diligence, or otherwise materially violates any provision of the Contract, then the Port, without prejudice to any other right or remedy, may terminate the Contractor after giving the Contractor seven (7) days' written notice (during which period the Contractor shall have the right to cure).
- B. Procedure following termination for cause. Following a termination for cause, the Port may take possession of the Project site and all materials and equipment, and utilize such materials and equipment to finish the Work. The Port may also exclude the Contractor from the Project site(s). If the Port elects to complete all or a portion of the Work, it may do so as it sees fit. The Port shall not be required to accept the lowest bid for completion of the Work and may choose to complete all or a portion of the Work using its own work force. If the Port elects to complete all or a portion of the Work, the Contractor shall not be entitled to any further payment until the Work is finished. If the expense of finishing the Work, including compensation for additional managerial and administrative services of the Port, exceeds the unpaid balance of the Contract Sum, the excess shall be paid by the Contractor.
- C. Port's remedies following termination for cause. The Port may exercise any rights, claims, or demands that the Contractor may have against third persons in connection with the Contract, and for this purpose the Contractor assigns and transfers to the Port all such rights, claims, and demands.
- D. Inadequate termination for cause converted to termination for convenience. If, after the Contractor has been terminated for cause, it is determined that inadequate "cause" for such termination exists, then the termination shall be considered a termination for convenience pursuant to Section 9.03.

9.03 TERMINATION OF CONTRACT FOR CONVENIENCE BY THE PORT

- A. Port may terminate for convenience. The Port may, at any time (without prejudice to any right or remedy of the Port), terminate all, or any portion of, the Contract for the Port's convenience and without cause. The Contractor shall be entitled to receive payment consistent with the Contract Documents only for Work properly executed through the date of termination, and costs necessarily incurred by reason of the termination (such as the cost of settling and paying claims arising out of the termination under subcontracts or orders), along with a fee of one percent (1%) of the Contract Sum not yet earned on the whole or part of the Work. The total amount to be paid to the Contractor shall not exceed the Contract Sum as reduced by the amount of payments otherwise made. The Port shall have title to all Work performed through the date of termination.

9.04 TERMINATION OF CONTRACT BY THE CONTRACTOR

- A. Contractor may terminate for cause. The Contractor may terminate the Contract if the Work is stopped for a period of sixty (60) consecutive days through no act or fault of the Contractor or a Subcontractor of any tier, for either of the following reasons:
 1. Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped; or

2. An act of government, such as a declaration of national emergency, that requires all Work to be stopped.
- B. Procedure for Contractor termination. If one of the reasons described in Section 9.04A exists, the Contractor may, upon seven (7) days' written notice to the Port (during which period the Port has the opportunity to cure), terminate the Contract and recover from the Port payment for Work executed through the date of termination in accordance with the Contract Documents and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including reasonable overhead and profit on Work executed and direct costs incurred by reason of such termination. The total recovery of the Contractor shall not exceed the unpaid balance of the Contract Sum.
- C. Contractor may stop the Work for failure of Port to pay undisputed amounts. The Contractor may stop Work under the Contract if the Port does not pay undisputed amounts due and owing to the Contractor within fifteen (15) days of the date established in the Contract Documents. If the Port fails to pay undisputed amounts, the Contractor may, upon fifteen (15) additional days' written notice to the Port, during which the Port can cure, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately, and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay, and start-up.

9.05 SUBCONTRACT ASSIGNMENT UPON TERMINATION

- A. Subcontracts assigned upon termination. Each subcontract is hereby assigned by the Contractor to the Port provided that:
 1. The Port requests that the subcontract be assigned.
 2. The assignment is effective only after termination by the Port and only for those subcontracts that the Port accepts in writing.
 3. The assignment is subject to the prior rights of the surety, if any, under any bond issued in accordance with the Contract Documents.

When the Port accepts the assignment of a subcontract, the Port assumes the Contractor's rights and obligations under the subcontract, but only for events and payment obligations that arise after the date of the assignment.

ARTICLE 10 - BONDS

10.01 CONTRACTOR PERFORMANCE AND PAYMENT BONDS

- A. Contractor to furnish performance and payment bonds. Within fifteen (15) days following its receipt of a notice of award, and as part of the Contract Sum, the Contractor shall secure and furnish duly executed performance and payment bonds using the forms furnished by the Port. The bonds shall be executed by a surety (or sureties) reasonably acceptable to the Port, admitted and licensed in the State of Washington, registered with the Washington State Insurance Commissioner, and possessing an A.M. Best rating of "A-, FSC (6)" or better and be authorized by the U.S. Department of the Treasury. Pursuant to RCW 39.08, the bonds shall be in an amount equal to the Contract Sum, and shall be conditioned only upon the faithful performance of the Contract by the Contractor within the Contract Time and upon the payment by the Contractor of all taxes, fees, and penalties to the State of Washington and all laborers, Subcontractors, and suppliers, and others who supply provisions, equipment, or supplies for the performance of the Work covered by this Contract. The bonds shall be signed by the person or persons legally authorized to bind the Contractor.

B. On contracts of one hundred fifty thousand dollars or less, at the option of the contractor as defined in RCW 39.10.210, the Port may, in lieu of the bond, retain ten percent of the contract amount for a period of thirty days after date of final acceptance, or until receipt of all necessary releases from the department of revenue, the Employment Security Department, and the Department of Labor and Industries and settlement of any liens filed under chapter 60.28 RCW, whichever is later. The recovery of unpaid wages and benefits must be the first priority for any actions filed against retainage held by a state agency or authorized local government.

For contracts of one hundred fifty thousand dollars or less, the Port may accept a full payment and performance bond from an individual surety or sureties.

C. Port may notify surety. If the Port makes or receives a claim against the Contractor, the Port may, but is not obligated to, notify the Contractor's surety of the nature and amount of the claim. If the claim relates to a possibility of a Contractor's default, the Port may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

ARTICLE 11 - DISPUTE RESOLUTION

11.01 NOTICE OF PROTEST AND CLAIM

A. Dispute resolution procedure mandatory. All claims, direct or indirect, arising out of, or relating to, the Contract Documents or the breach thereof, shall be decided exclusively by the following alternative dispute resolution procedure, unless the parties mutually agree otherwise. If the Port and Contractor agree to a partnering process to assist in the resolution of disputes, the partnering process shall occur prior to, and not be in place of, the mandatory dispute resolution procedures set forth below.

B. Notice of protest defined. Except for claims requiring notice before proceeding with the affected Work as otherwise described in the Contract Documents, the Contractor shall provide immediate oral notice of protest to the Engineer prior to performing any disputed Work and shall submit a written notice of protest to the Port within seven (7) days of the occurrence of the event giving rise to the protest that includes a clear description of the event(s). The protest shall identify any point of disagreement, those portions of the Contract Documents believed to be applicable, and an estimate of quantities and costs involved. When a protest relates to cost, the Contractor shall keep full and complete records and shall permit the Port to have access to those records at any time as requested by the Port.

C. Claim defined. A claim is a demand by one of the parties seeking adjustment or interpretation of the Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract Documents. The term "claim" also includes all disputes and matters in question between the Port and Contractor arising out of, or relating to, the Contract Documents. Claims must be initiated in writing and include a detailed factual statement and clear description of the claim providing all necessary dates, locations, and items of Work, the date or dates on which the events occurred that give rise to the claim, the names of employees or representatives knowledgeable about the claim, the specific provisions of the Contract Documents that support the claim, any documents or oral communications that support the claim, any proposed change in the Contract Sum (showing all components and calculations) and/or Contract Time (showing cause and analysis of the resultant delay in the critical path), and all other data supporting the claim. Claims shall also be submitted with a statement certifying, under penalty of perjury, that the claim as submitted is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor's knowledge and belief, that the claim is fully supported, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes the Port is liable. A claim shall be deemed to include all changes, direct and indirect, in cost and in time to which the Contractor and Subcontractors of any tier are entitled and may not contain

reservations of rights without the Port's written approval; any unapproved reservations of rights shall be without effect.

- D. Claim procedure. The Contractor shall submit a written claim within thirty (30) days of providing written notice of protest. The Contractor may delay submitting supporting data by an additional thirty (30) days if it notifies the Port in its claim that substantial data must be assembled. Any claim of a Subcontractor of any tier may be brought only through, and after review by and concurrence of, the Contractor.
- E. Failure to comply with notice of protest and claim requirements waives claims. Any notice of protest by the Contractor and any claim of the Contractor, whether under the Contract or otherwise, must be made pursuant to, and in strict accordance with, the applicable provisions of the Contract. Failure to properly and timely submit a notice of protest or to timely submit a claim shall waive the claim. No act, omission, or knowledge, actual or constructive, of the Port shall waive the requirement for timely written notice of protest and a timely written claim, unless the Port and the Contractor sign an explicit, unequivocal written waiver approved by the Port. The Contractor expressly acknowledges and agrees that the Contractor's failure to timely submit required notices of protest and/or timely submit claims has a substantial impact upon, and prejudices, the Port. For the purpose of calculating time periods, an "event giving rise to a claim," among other things, is not a Request for Information, but rather is a response that the Contractor believes would change the Contract Sum and/or Contract Time.
- F. False claims. The Contractor shall not make any fraudulent misrepresentations, concealments, errors, omissions, or inducements to the Port in the formation or performance of the Contract. If the Contractor or a Subcontractor of any tier submits a false or frivolous claim to the Port, which for purposes of this Section 11.01(F) is defined as a claim based in whole or in part on a materially incorrect fact, statement, representation, assertion, or record, the Port shall be entitled to collect from the Contractor by offset or otherwise (without prejudice to any right or remedy of the Port) any and all costs and expenses, including investigation and consultant costs, incurred by the Port in investigating, responding to, and defending against the false or frivolous claim.
- G. Compliance with lien and retainage statutes required. If a claim relates to, or is the subject of, a lien or retainage claim, the party asserting the claim may proceed in accordance with applicable law to comply with the notice and filing deadlines prior to resolution of the claim by mediation or by litigation.
- H. Performance required pending claim resolution. Pending final resolution of a claim, the Contractor shall continue to perform the Contract and maintain the Baseline Project Schedule, and the Port shall continue to make payments of undisputed amounts due in accordance with the Contract Documents.

11.02 MEDIATION

- A. Claims must be subject to mediation. At any time following the Port's receipt of a written claim, the Port may require that an officer of the Contractor and the Port's designee (all with authority to settle) meet, confer, and attempt to resolve a claim. If the claim is not resolved during this meeting, the claim shall be subject to mandatory mediation as a condition precedent to the initiation of litigation. This requirement can be waived only by an explicit, written waiver signed by the Port and the Contractor.
- B. Mediation procedure. A request for mediation shall be filed in writing with the other party to the Contract, and the parties shall promptly attempt to agree upon a mediator. If the parties have not reached agreement within thirty (30) days of the request, either party may file the request with the American Arbitration Association, or such other alternative dispute resolution service to which the parties mutually agree, with a copy to the other party, and the mediation shall be

administered by the American Arbitration Association (or other agreed service). The parties to the mediation shall share the mediator's fee and any filing fees equally. The mediation shall be held in Pierce County, Washington, unless another location is mutually agreed upon.

Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof. Unless the Port and the Contractor mutually agree in writing otherwise, all claims shall be considered at a mediation session that shall occur prior to Final Completion.

11.03 LITIGATION

- A. Claims not resolved by mediation are subject to litigation. Claims not resolved through mediation shall be resolved by litigation, unless the parties mutually agree otherwise. The venue for any litigation shall be Pierce County, Washington. The Contractor may bring no litigation on claims, unless such claims have been properly raised and considered in the procedures of this Article 11. The Contractor must demonstrate in any litigation that it complied with all requirements of this Article.
- B. Litigation must be commenced promptly. All unresolved claims of the Contractor shall be waived and released, unless the Contractor has complied with the requirements of the Contract Documents, and litigation is served and filed within 180 days of the date of Substantial Completion approved in writing by the Port or termination of the Contract. The pendency of mediation (the time period between receipt by the non-requesting party of a written mediation request and the date of mediation) shall toll these deadlines until the earlier of the mediator providing written notice to the parties of impasse, or thirty (30) days after the date of the mediation session.
- C. Port not responsible for attorneys' fees. Neither the Contractor nor a Subcontractor of any tier, whether claiming under a bond or lien statute or otherwise, shall be entitled to attorneys' fees directly or indirectly from the Port (but may recover attorneys' fees from the bond or statutory retainage fund itself to the extent allowable under law).
- D. Port may join Contractor in dispute. The Port may join the Contractor as a party to any litigation or arbitration involving the alleged fault, responsibility, or breach of contract of the Contractor or Subcontractor of any tier.

ARTICLE 12 - MISCELLANEOUS

12.01 GENERAL

- A. Rights and remedies are cumulative. The rights and remedies of the Port set forth in the Contract Documents are cumulative, and in addition to and not in limitation of, any rights and remedies otherwise available to the Port. The pursuit of any remedy by the Port shall not be construed to bar the Port from the pursuit of any other remedy in the event of similar, different, or subsequent breaches of this Contract. All such rights of the Port shall survive completion of the Project or termination of the Contractor.
- B. Reserved rights do not give rise to duty. The rights reserved or possessed by the Port to take any action shall not give rise to a duty for the Port to exercise any such right.

12.02 WAIVER

- A. Waiver must be in writing and authorized by Port. Waiver of any provisions of the Contract Documents must be in writing and authorized by the Port. No other waiver is valid on behalf of the Port.
- B. Inaction or delay not a waiver. No action, delay in acting, or failure to act by the Port shall constitute a waiver of any right or remedy of the Port, or constitute an approval or acquiescence of any breach or defect in the Work, nor shall any delay or failure of the Port to act waive or

otherwise prejudice the right of the Port to enforce a right or remedy at any subsequent time.

- C. Claim negotiation not a waiver. The fact that the Port and the Contractor may consider, discuss, or negotiate a claim that has or may have been defective or untimely under the Contract, shall not constitute a waiver of the provisions of the Contract Documents, unless the Port and the Contractor sign an explicit, unequivocal waiver.

12.03 GOVERNING LAW

- A. Washington law governs. This Contract and the rights and duties of the parties hereunder shall be governed by the internal laws of the State of Washington, without regard to its conflict of law principles.

12.04 COMPLIANCE WITH LAW

- A. Contractor to comply with applicable laws. The Contractor shall at all times comply with all applicable Federal, State and local laws, ordinances, and regulations. This compliance shall include, but is not limited to, the payment of all applicable taxes, royalties, license fees, penalties, and duties.
- B. Contractor to provide required notices. The Contractor shall give notices required by all applicable Federal, State and local laws, ordinances, and regulations bearing on the Work.
- C. Contractor to confine operations at site to permitted areas. The Contractor shall confine operations at the Project site to areas permitted by applicable laws, ordinances, permits, rules and regulations, and lawful orders of public authorities and the Contract Documents.

12.05 ASSIGNMENT

- A. Assignment. The Port and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party and to the partners, successors, assigns, and legal representatives of such other party. The Contractor may not assign, transfer, or novate all or any portion of the Contract, including but not limited to, any claim or right to the Contract Sum, without the Port's prior written consent. If the Contractor attempts to make an assignment, transfer, or novation without the Port's consent, the assignment shall be of no effect, and Contractor shall nevertheless remain legally responsible for all obligations under the Contract. The Contractor also shall not assign or transfer, to any third party, any claims it may have against the Port arising under the Contract or otherwise related to the Project.

12.06 TIME LIMIT ON CAUSES OF ACTION

- A. Time limit on causes of action. The Port and Contractor shall commence all causes of action, whether in contract, tort, breach of warranty, or otherwise, against the other arising out of, or related to, the Contract in accordance with the requirements of the dispute resolution procedure set forth in Article 11 of these General Conditions, within the time period specified by applicable law, and within the time limits identified in the Contract Documents. The Contractor waives all claims and causes of action not commenced in accordance with this Section 12.06.

12.07 SERVICE OF NOTICE

- A. Notice. Written notice under the Contract Documents by either the Contractor or Port may be served on the other party by personal service, electronic or facsimile transmission, or delivery service to the last address provided in writing to the other party. For the purpose of measuring time, notice shall be deemed to be received by the other party on the next business day following the sender's electronic or facsimile transmittal or delivery by delivery service.

12.08 RECORDS

- A. Contractor and Subcontractors to maintain records and cooperate with Port audit. The Contractor and Subcontractors of any tier shall maintain books, ledgers, records, documents, estimates, bids, correspondence, logs, schedules, emails, and other tangible and electronic data and evidence relating or pertaining to costs and/or performance of the Contract ("records") to such extent, and in such detail, as will properly reflect and fully support compliance with the Contract Documents and with all costs, charges, and other amounts of whatever nature. The Contractor shall preserve these records for a period of six (6) years following the date of Final Acceptance under the Contract. Within seven (7) days of the Port's request, both during the Project and for six (6) years following Final Acceptance, the Contractor and Subcontractors of any tier shall make available, at their office during normal business hours, all records for inspection, audit, and reproduction (including electronic reproduction) by the Port or its representatives; failure to fully comply with this requirement shall constitute a material breach of contract and a waiver of all claims by the Contractor and Subcontractors of any tier.
- B. Rights under RCW 42.56. The Contractor agrees, on behalf of itself and Subcontractors of any tier, that any rights under Chapter 42.56 RCW will commence at Final Acceptance, and that the invocation of such rights at any time by the Contractor or a Subcontractor of any tier, or their respective representatives, shall initiate an equivalent right to disclosures from the Contractor and Subcontractors of any tier for the benefit of the Port.

12.09 STATUTES

- A. Contractor to comply with Washington statutes. The Contractor shall abide by the provisions of all applicable statutes, regulations, and other laws. Although a number of statutes are referenced in the Contract Documents, these references are not meant to be, and are not, a complete list.
 1. Pursuant to RCW 39.06, "Registration, Licensing of Contractors," the Contractor shall be registered and licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27, "Registration of Contractors," and shall satisfy all State of Washington bonding and insurance requirements. The Contractor shall also have a current state Unified Business Identifier number; have industrial insurance coverage for the Contractor's employees working in Washington as required by Title 51 RCW; have an Employment Security Department number as required by Title 50 RCW; have a state excise tax registration number as required in Title 82 RCW; and not be disqualified from bidding on any public works contract under RCW 39.06.010 (unregistered or unlicensed contractors) or RCW 39.12.065(3) (prevailing wage violations).
 2. The Contractor shall comply with all applicable provisions of RCW 49.28, "Hours of Labor."
 3. The Contractor shall comply with pertinent statutory provisions relating to public works of RCW 49.60, "Discrimination."
 4. The Contractor shall comply with pertinent statutory provisions relating to public works of RCW 70.92, "Provisions in Buildings for Aged and Handicapped Persons," and the Americans with Disabilities Act.
 5. Pursuant to RCW 50.24, "Contributions by Employers," in general, and RCW 50.24.130 in particular, the Contractor shall pay contributions for wages for personal services performed under this Contract or arrange for an acceptable bond.
 6. The Contractor shall comply with pertinent provisions of RCW 49.17, "Washington Industrial Safety and Health Act," and Chapter 296-155 WAC, "Safety Standards for Construction Work."

7. Pursuant to RCW 49.70, "Worker and Community Right to Know Act," and WAC 296-62-054 et seq., the Contractor shall provide to the Port, and have copies available at the Project site, a workplace survey or material safety data sheets for all "hazardous" chemicals under the control or use of Contractor or any Subcontractor of any tier.
8. All products and materials incorporated into the Project as part of the Work shall be certified as "asbestos-free" and "lead-free" by United States standards, and shall also be free of all hazardous materials or substances. At the completion of the Project, the Contractor shall submit certifications of asbestos-free and of lead-free materials certifying that all materials and products incorporated into the Work meet the requirements of this Section, and shall also certify that materials and products incorporated into the Work are free of hazardous materials and substances.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes requirements for the Contractor's insurance.

1.02 SUBMITTAL REQUIREMENTS

- A. Evidence of the required insurance within ten (10) days of the issued Notice of Award to the Contractor.
- B. Updated evidence of insurance as required until final completion.

1.03 COMMERCIAL GENERAL LIABILITY (CGL) INSURANCE

- A. The Contractor shall secure and maintain until Final Completion, at its sole cost and expense, the following insurance in carriers reasonably acceptable to the Port, licensed in the State of Washington, registered with the Washington State Insurance Commissioner, and possessing an A.M. Best rating of "A-, FSC six (6)" or better.
- B. The Port of Tacoma (Port) and the Northwest Seaport Alliance (NWSA) will be included as additional insureds for both ongoing and completed operations by endorsement to the policy using ISO Form CG 20 10 11 85 or forms CG 20 10 04 13 and CG 20 37 04 13 (or equivalent coverage endorsements). The inclusion of the Port and the NWSA as additional insureds shall not create premium liability for either the Port nor the NWSA.

Also, by endorsement to the policy, there shall be:

1. An express waiver of subrogation in favor of the Port;
2. A cross liabilities clause; and
3. An endorsement stating that the Contractor's policy is primary and not contributory with any insurance carried by the Port.
- C. If the Contractor, Supplier, or Subcontractors will perform any work requiring the use of a licensed professional, per RCW 18, the Contractor shall provide evidence to the Port of professional liability insurance in amounts not less than \$1,000,000.
- D. This insurance shall cover all of the Contractor's operations, of whatever nature, connected in any way with the Contract, including any operations performed by the Contractor's Subcontractors of any tier. **It is the obligation of the Contractor to ensure that all Subcontractors (at whatever level) carry a similar program that provides the identified types of coverage, limits of liability, inclusion of the Port and the NWSA as additional insured(s), waiver of subrogation and cross liabilities clause.** The Port reserves the right to reject any insurance policy as to company, form, or substance. Contractor's failure to provide, or the Port's acceptance of, the Contractor's certificate of insurance does not waive the Contractor's obligation to comply with the insurance requirements of the Contract as specifically described below:
 1. Marine General Liability Insurance on an Occurrence Form Basis including, but not limited to:
 - a. Bodily Injury Liability;
 - b. Property Damage Liability;
 - c. Contractual Liability;
 - d. Products - Completed Operations Liability;

- e. Personal Injury Liability;
- f. Marine coverages as appropriate for the scope of work.

Alternatively, a Commercial General Liability (CGL) policy is acceptable if all of the above coverages are incorporated in the policy and there are no marine exclusions that will remove coverage for either vessels or work done by or above or around the water.

- 2. Marine Protection and Indemnity/Vessel Pollution Liability: Contractor shall obtain, at Contractor's expense and keep in effect during the term of the Contract, Marine Protection and Indemnity insurance which shall include Collision Liability and Jones Act coverages, including coverage for all masters, crew, and passengers. The limit of liability shall not be less than \$5,000,000. If Collision Liability is part of the Hull and Machinery coverage for the vessel, evidence of Hull and Machinery coverage in amounts not less than the actual cash value of the vessel shall also be provided.
 - a. Vessel Pollution Liability: Contractor shall obtain, at Contractor's expense and keep in effect during the term of the Contract, Vessel Pollution Liability on all vessels used under this Contract. Vessel Pollution Liability limits shall be the same as the Protection and Indemnity (P&I) limits called for in Section 2.
- 3. Comprehensive Automobile Liability including, but not limited to:
 - a. Bodily Injury Liability;
 - b. Property Damage Liability;
 - c. Personal Injury Liability;
 - d. Owned and Non-Owned Automobile Liability; and
 - e. Hired and Borrowed Automobile Liability.
- 4. Contractor's Pollution Liability (CPL) covering claims for bodily injury, property damage and cleanup costs, and environmental damages from pollution conditions arising from the performance of covered operations.
 - a. If the Work involves remediation or abatement of regulated waste to include, but not limited to asbestos containing materials, lead containing products, mercury, PCB, underground storage tanks, or other hazardous materials or substances, the CPL policy shall not exclude such coverage, or a specific policy covering such exposure shall be required from the Contractor and all Subcontractors performing such Work.
 - b. If the Work involves transporting regulated materials or substances or waste, a separate policy or endorsement to the CPL policy specifically providing coverage for liability and cleanup arising from an upset or collision during transportation of hazardous materials or substances shall be required from the Contractor and all Subcontractors performing such Work.
 - c. It is preferred that CPL insurance shall be on a true occurrence form without a sunset clause. However, if CPL insurance is provided on a Claims Made basis, the policy shall have a retroactive date prior to the start of this project, and this insurance shall be kept in force for at least three years after the final completion of this project. Alternatively, the contractor, at its option, may provide evidence of extended reporting period of not less than three (3) years in its place. The Contractor shall be responsible for providing the Port with certificates of insurance each year evidencing this coverage.
 - d. The Port and the NWSA shall be named as an additional insured(s) on the CPL policy.

5. Technology Professional Liability Errors and Omissions Insurance appropriate to the Consultant's profession and work hereunder, with limits not less than \$2,000,000 per occurrence. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by the Vendor in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, copyright, trademark, invasion of privacy violations, information theft, release of private information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

The policy shall include, or be endorsed to include, **property damage liability coverage** for damage to, alteration of, loss of, or destruction of electronic data and/or information "property" of the Agency in the care, custody, or control of the Vendor.

E. Except where indicated above, the limits of all insurance required to be provided by the Contractor shall be not less than \$2,000,000 for each occurrence. If the coverage is aggregated, the coverage shall be no less than two times the per occurrence or per claim limit. However, coverage in the amounts of these minimum limits shall not be construed as to relieve the Contractor from liability in excess of such limits. Any additional insured endorsement shall NOT be limited to the amounts specified by this Contract, unless expressly waived in writing by the Port.

F. Contractor shall certify that its operations are covered by the Washington State Worker's Compensation Fund. The Contractor shall provide its Account Number or, if self-insured, its Certificate of Qualification Number. The Contractor shall also provide evidence of Stop-Gap Employers' Liability Insurance.

United States Longshoremen's and Harbor Worker's Act (USL&H) and Jones Act may be required for this project. The Contractor shall be solely responsible for determining the applicability of USL&H and Jones Act coverage. The failure of the Contractor to procure either USL&H or Jones Act coverage shall at no time create liability on the part of the Port. The Contractor shall bear all responsibility and shall indemnify and hold harmless the Port for any and all liability, cost, and/or damages.

G. The Contractor shall furnish, within ten (10) days following issuance of the Notice of Award, a certificate of insurance satisfactory to the Port evidencing that insurance in the types and minimum amounts required by the Contract Documents has been secured. The Certificate of Insurance shall be signed by an authorized representative of the insurer together with a copy of the endorsement, which shows that the Port and the NWSA are named as additional insured(s).

H. Contractor shall provide at least forty-five (45) days prior written notice to the Port of any termination or material change, or ten (10) day's-notice in the case of non-payment of premium(s).

I. If the Contractor is required to make corrections to the Work after Final Completion, the Contractor shall obtain at its own expense, prior to the commencement of any corrective work, insurance coverage as required by the Contract Documents, which coverage shall be maintained until the corrections to the Work have been completed and accepted by the Port.

1.04 BUILDER'S RISK INSURANCE

A. Until Final Completion of the Work, the construction Work is at the risk of the Contractor and no partial payment shall constitute acceptance of the Work or relieve the Contractor of responsibility of completing the Work under the Contract.

B. To the extent the Work provided under this Contract does not include the construction, rehabilitation or repair of any dam, road or bridge, and whenever the estimated cost of the Work is less than \$25,000,000, the Port and Contractor acknowledge that the Port will purchase, or has purchased, from a company or companies lawfully authorized and admitted to do business in Washington, property insurance written on a Builder's Risk "all-risk" (including Earthquake and Flood with applicable sub-limits) or equivalent policy form to cover the course of construction in the amount of the full insurable value thereof. This property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Port has an insurable interest in the property, whichever is later. Without further endorsement, the coverage afforded by this insurance includes the interests of the Port, the Contractor, and Subcontractors of any tier on the Project. Coverage for materials intended to be installed in the facility will be covered by the Builder's Risk policy. Losses up to the deductible amount, and payment of any deductible amount, shall be the responsibility of the Contractor. All tools and equipment not intended as part of the construction or installation (including but not limited to Contractor's equipment and tools) will NOT be covered by the policy.

To the extent the Work provided under this Contract involves any dam, roadway or bridge, the value of which exceeds \$250,000, or whenever the estimated cost of the Work is equal to or greater than \$25,000,000, Contractor will purchase from a company or companies lawfully authorized and admitted to do business in Washington, property insurance written on a Builder's Risk "all-risk" (excluding Earthquake and Flood with applicable sub-limits) or equivalent policy form to cover the course of construction in the amount of the full insurable value thereof. This Builder's Risk insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Port has an insurable interest in the property, whichever is later. Contractor shall provide evidence satisfactory to the Port confirming the coverage afforded by this insurance shall include the interests of the Port, the Contractor, and Subcontractors of any tier on the Project. Coverage for materials intended to be installed in the facility will be covered by the Builder's Risk policy purchased by the Contractor. Losses up to the deductible amount, and payment of any deductible amount, shall be the responsibility of the Contractor.

In all instances, the Contractor shall obtain property insurance for all Contractor-owned equipment and tools and, in the event of loss, payment of any deductible amount shall be the responsibility of the Contractor.

PART 2 - PRODUCTS - NOT USED

PART 3 - PRODUCTS - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 PREVAILING AND OTHER REQUIRED WAGES

- A. The Contractor shall pay (and shall ensure that all Subcontractors of any tier pay) all prevailing wages and other wages (such as Davis-Bacon Act wages) applicable to the Project.
- B. Pursuant to RCW 39.12, "Prevailing Wages on Public Works," no worker, laborer, or mechanic employed in the performance of any part of the Work shall be paid less than the "prevailing rate of wage" in effect as of the date that bids are due.
 1. Based on the Bid Date, the applicable effective date for prevailing wages for this Project is November 10, 2021.
- C. The State of Washington prevailing wage rates applicable for this public works Project, which is located in Pierce County, may be found at the following website address of the Department of Labor and Industries:
<https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx>
- D. The schedule of the prevailing wage rates is made a part of the Contract Documents by reference as though fully set forth herein, and a printed copy of the applicable prevailing wage rates are also available for viewing at the Port Administration Building, located at 1 Sitcum Plaza, Tacoma, WA 98421 (253-383-5841). Upon request to the Procurement Department at procurement@portoftacoma.com, the Port will email or mail a hard copy of the applicable Journey Level prevailing wages for this Project.
- E. Questions relating to prevailing wage data should be addressed to the Industrial Statistician.

Mailing Address: Washington State Department of Labor and Industries
Prevailing Wage Office
P.O. Box 44540
Olympia, WA 98504

Telephone: (360) 902-5335

Facsimile: (360) 902-5300

1. If there is any discrepancy between the provided schedule of prevailing wage rates and the published rates applicable under WAC 296-127-011, the applicable published rates shall apply with no increase in the Contract Sum. It is the Contractor's responsibility to ensure that the correct prevailing wage rates are paid.

F. Statement to Pay Prevailing Wages

1. Prior to any payment being made by the Port under this Contract, the Contractor, and each Subcontractor of any tier, shall file a Statement of Intent to Pay Prevailing Wages with the Department of Labor and Industries for approval.
2. The statement shall include the hourly wage rate to be paid to each classification of workers entitled to prevailing wages, which shall not be less than the prevailing rate of wage, and the estimated number of workers in each classification employed on the Project by the Contractor or a Subcontractor of any tier, as well as the Contractor's contractor registration number and other information required by the Department of Labor and Industries.
3. The statement, and any supplemental statements, shall be filed in accordance with the requirements of the Department of Labor and Industries. No progress payment shall be made until the Port receives such certified statement.

- G. The Contractor shall post, in a location readily visible to workers, at the Project site: (i) a copy of the Statement of Intent to Pay Prevailing Wages approved by the Industrial Statistician of the Department of Labor and Industries and (ii) the address and telephone number of the Industrial Statistician of the Department of Labor and Industries to whom a complaint or inquiry concerning prevailing wages may be directed.
- H. If a State of Washington prevailing wage rate conflicts with another applicable wage rate (such as Davis-Bacon Act wage rate) for the same labor classification, the higher of the two shall govern.
- I. Pursuant to RCW 39.12.060, if any dispute arises concerning the appropriate prevailing wage rate for work of a similar nature, and the dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the Department of Labor and Industries, and his or her decision shall be final and conclusive and binding on all parties involved in the dispute.
- J. Immediately following the end of all Work completed under this Contract, the Contractor and each Subcontractor of any tier, shall file an approved Affidavit of Wages Paid with the Department of Labor and Industries.
- K. The Contractor shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold the Port harmless from all liabilities, obligations, claims, demands, damages, disbursements, lawsuits, losses, fines, penalties, costs, and expenses, whether direct, indirect, including, but not limited to, attorneys' fees and consultants' fees and other costs and expenses, from any violation or alleged violation by the Contractor or any Subcontractor of any tier of RCW 39.12 ("Prevailing Wages on Public Works") or RCW Title 51 ("Industrial Insurance"), including, but not limited to, RCW 51.12.050.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS APPLICABLE PORT-WIDE

- A. The Contractor shall submit, prior to the start of Work, a list of emergency contact numbers for itself and its Subcontractors, Suppliers, and manufacturer representatives. Each person on the Project site shall have a valid identification card that is tamper proof with laminated photo identification, such as one (1) of the following:
 1. State-issued Driver's license (also required if driving a vehicle)
 2. Card issued by a governmental agency
 3. Passport
 4. Pacific Maritime Association card
 5. Labor organization identification card
- B. Identification cards shall be visible while on the Project site or easily displayed when requested.

1.02 TRANSPORTATION WORKER IDENTIFICATION CARD (TWIC) SUMMARY

- A. TWIC is required for all personnel needing unescorted access to secure and restricted areas of Port facilities subject to 33 CFR 105, including truckers, surveyors, construction personnel, and delivery personnel. Secure areas are those areas with security measures for access control in accordance with a Coast Guard approved security plan. Restricted areas are those areas within a secure area that require increased limited access and a higher degree of security protection. New terminals under construction prior to terminal operations may not be designated secure areas. Construction on existing maritime transportation facilities and punchlist or other type of work requirements on facilities that have been certified under 33 CFR will require a TWIC.
- B. Contractors should allow for application and enrollment for the security threat assessment and issuance of TWIC when submitting a bid.

1.03 ESCORTING

- A. To access restricted Port facilities, all un-credentialed individuals must be accompanied by a person who has been issued a TWIC and trained as an escort at that specific facility. Each restricted facility has their own guidelines for escorting. Having escort training at one facility does not qualify you to escort at other facilities. Prior to conducting escort services for non-TWIC personnel, the escorts are required to contact the Facility Security Officer at the gate for verification they are on the escort list and to document who is being escorted. For required documentation, upon completion of escorting, the escort is to inform the Security officer that the escort is complete. It is the Contractor's responsibility to schedule escort training with the Facility Security Officer.
- B. For more information, refer to the Port Security website at:
<http://www.portoftacoma.com/shipping/security>
- C. For Project specific information, refer to Section 01 14 00 - Work Restrictions.

1.04 ELIGIBILITY FOR TWIC

- A. Refer to the Transportation Worker Identification Credential website at: <https://www.tsa.gov/for-industry/twic> for information on eligibility and applying for TWIC.

1.05 TWIC USE AND DISPLAY

- A. Each worker granted unescorted access to secure areas of a facility or vessel must present their cards to authorized personnel, who will compare the holder to his or her photo, inspect

security features on the TWIC, and evaluate the card for signs of tampering. The Coast Guard will verify TWIC's when conducting vessel and facility inspections and during spot checks using hand-held scanners, ensuring credentials are valid.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SCOPE

- A. The accompanying Drawings and Specifications show and describe the location and type of Work to be performed under this project. Work is more specifically defined on the drawings listed in Section 00 01 15.
 1. The Work under this contract is to provide, furnish and install all labor, materials and equipment required to complete the work, installed, tested, and ready for use, and as described in these documents.
 2. The 2021 Pier Repairs (Pile Cracks, Spall Repairs and Mooring Coating) - EB1, WUT and Pier 3 consists of:
 - a. Pier 3 Terminal (Husky) - 201130.01

The Work consists of spall repair which includes sawcutting, demolition, surface preparation, anode installation, formwork and placement of high performance cementitious concrete repair material as shown in the drawings and described in the specifications.

- b. WUT Terminal - 201130.02

The Work consists of spall repair which includes sawcutting, demolition, surface preparation, anode installation, formwork and placement of high performance cementitious concrete repair material as shown in the drawings and described in the specifications. The Work does NOT include bollard recoating.

- c. East Blair One Terminal - 201130.03

The Work consists of spall repair which includes sawcutting, demolition, surface preparation, anode installation, formwork and placement of high performance cementitious concrete repair material as shown in the drawings and described in the specifications. The Work also includes concrete pile crack repairs with surface-applied epoxy to reduce chloride intrusion. Pile repairs include crack preparation by high pressure washing.

1.02 LOCATION

- A. The work is located at:

1101 Port of Tacoma Rd | 1815 Port of Tacoma Rd | 2940 Alexander Ave E
Tacoma, WA 98421

1.03 WORK PERFORMED UNDER SEPARATE CONTRACTS

- A. The Contractor shall, by way of the Engineer, familiarize itself with other contracts which have been awarded, about to be awarded or are in progress in the same or immediate area. The Contractor shall coordinate the progress of its work with the established schedules for completion and phasing.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. All Work will be performed within active marine shipping terminals where vessel operations will control and dictate access. The Contractor shall coordinate all activities with the terminal operators through the Engineer. The Contractor shall anticipate working weekends or outside typical business hours as necessary to complete the Work by the contract performance date of December 31st, 2021.
- B. No above deck work shall be conducted below or adjacent to live container handling operations.
- C. Weekly vessel schedules for all facilities will be provided by the Engineer. These schedules shall be subject to change with no notice.
- D. The Contractor shall anticipate and plan work around tides and tidal access.
- E. The Contractor shall assume berthing manuevers may interrupt below dock operations.

1.02 CONTRACTOR ACCESS AND USE OF PREMISES

- A. Activity Regulations
 - 1. Ensure Contractor personnel deployed to the project become familiar with and follow all regulations or restrictions established by the Engineer.
- B. Working Facility
 - 1. The Facility will remain in operation for the duration of construction. The Contractor shall conduct all items of the Work in such a manner as to prevent interference with the normal operations of the Facility.
 - 2. TWIC Escorting Requirements:
 - a. All Contractor personnel shall have TWIC cards. Escort privileges are granted by facility tenant according to their safety training requirements
- C. Work Site Regulations
 - 1. Keep within the limits of work and assigned avenues of ingress and egress. Do not enter any areas outside the designated work location unless previously approved by the Engineer. The Contractor must comply with the following conditions:
 - a. Restore all common areas to a clean and useable condition that permits the resumption of Tenant operations after the Contractor ceases daily work.
 - b. Be responsible for control and security of Contractor-owned equipment and materials at the work site. Report to Port Security (phone (253) 383-9472) any missing/lost/stolen property.
 - c. Ensure all materials, tools and equipment will be removed from the site or secured within the designated laydown area at the end of each shift.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Procedures for preparation and submittal of applications for progress payments.

1.02 PAYMENT PROCEDURES

- A. Monthly pay estimates shall clearly identify the work performed for the given time period based on the approved Schedule of Values.
 - 1. At the Pre-construction meeting, the Engineer and the Contractor shall agree upon a date each month when payment applications shall be submitted.
- B. For each pay estimate the Contractor shall submit the following:
 - 1. Completed Contractor invoice and updated Schedule of Values tracking sheet as required by Division 01 or as established by the Engineer.
 - 2. Baseline Project Schedule and narrative updated as required by Section 01 32 16 of the Project Manual.
 - 3. Completed "Amounts Paid to Subcontracts and Suppliers" showing total contract amount, amount paid this estimate, total paid to date, and balance owing.
 - 4. Completed "Conditional Release and Waiver of Liens and Claims."
 - 5. An estimated cashflow statement projecting the Contractor's monthly billings on the project shall be submitted with each payment application.
- C. Prior to submitting a payment application, the Contractor and Engineer shall meet each month to review the work accomplished to determine the actual quantities including labor, materials and equipment charges to be billed.
 - 1. Prior to the payment application meeting, the Contractor shall submit to the Engineer all measurement documentation as referenced in these contract documents; to include all measurement by weight, volume or field.
 - 2. For all change work being done on a force account basis, the Contractor shall submit prior to meeting with Engineer all Force Account back-up documentation as required to process the payment application where Force Account work is being billed. The Engineer and the Contractor shall review the documentation at the payment application meeting to verify quantities and review the work accomplished.
 - 3. The Contractor shall bring a copy of all documentation to the pay application meeting with the Engineer.
 - 4. The Contractor shall submit the updated baseline project schedule for review prior to submitting the payment application to ensure the payment processing is not held up due to necessary schedule revisions.
- D. Following the Engineers' review, the Contractor shall submit the agreed upon pay estimate electronically, with complete supporting documentation, using e-Builder®.

1.03 PAYMENT PRICING

- A. Pricing for the various lump sum or unit prices in the Bid Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Documents.

- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- C. No separate payment will be made for any item that is not specifically set forth in the Bid Form, and all costs therefore shall be included in the prices named in the Bid Form for the various appurtenant items of work.
- D. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices bid. Payment for work under one item will not be paid for under any other item.
- E. The Port of Tacoma reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes shall govern the compensation.

1.04 LUMP SUM MEASUREMENT

- A. Lump sum measurement will be for the entire item, unit of Work, structure, or combination thereof, as specified and as indicated in the Contractor's submitted bid.
 - 1. If the Contractor requests progress payments for lump sum items, such progress payments will be made in accordance with an approved Schedule of Values. The quantity for payment for completed work shall be an estimated percentage of the lump sum amount, agreed to between the Engineer and Contractor, payable in monthly progress payments in increments proportional to the work performed in amounts as agreed between the Engineer and the Contractor.

1.05 MEASUREMENT OF QUANTITIES FOR UNIT PRICES

- A. Measurement Standards:
 - 1. All Work to be paid for at a contract price per unit measurement, as indicated in the Contractor's submitted bid, will be measured by the Engineer in accordance with United States Standard Measures.
- B. Measurement by Weight:
 - 1. Reinforcing steel, steel shapes, castings, miscellaneous metal, metal fabrications, and similar items to be paid for by weight shall be measured by scale or by handbook weights for the type and quantity of material actually furnished and incorporated into the Work.
 - 2. Unless shipped by rail, material to be measured and paid for by weight shall be weighed on sealed scales regularly inspected by the Washington State Department of Agriculture's Weights and Measures Section or its designated representative. Measurement shall be furnished by and at the expense of the Contractor. All weighing, measuring, and metering devices shall be suitable for the purpose intended and shall conform to the tolerances and specifications as outlined in Washington State Department of Transportation Standard Specifications, Division 1, General Requirements, Article 1-09.2, Weighing Equipment.
 - 3. Provide or utilize platform scales of sufficient size and capacity to permit the entire vehicle or combination of vehicles to rest on the scale platform while being weighed. Combination vehicles may be weighed as separate units provided they are disconnected while being weighed. Scales shall be inspected and certified as often as the Engineer may deem necessary to ascertain accuracy. Costs incurred as a result of regulating, adjusting, testing, inspecting, and certifying scales shall be borne by the Contractor.

4. A licensed weighmaster shall weigh all Contractor-furnished materials. The Engineer may be present to witness the weighing and to check and compile the daily record of such scale weights. However, in any case, the Engineer will require that the Contractor furnish weight slips and daily summary weigh sheets. In such cases, furnish a duplicate weight slip or a load slip for each vehicle weighed, and deliver the slip to the Engineer at the point of delivery of the material.
5. If the material is shipped by rail, the certified car weights will be accepted, provided only actual weight of material will be paid for and not minimum car weights used for assessing freight tariff. Car weights will not be acceptable for material to be passed through mixing plants. Material to be measured by weight shall be weighed separately for each bid item under which it is to be paid.
6. Trucks used to haul material being paid for by weight shall be weighed empty daily and at such additional times as the Engineer may require. Each truck shall bear a plainly legible identification mark. The Engineer may require the weight of the material be verified by weighing empty and loaded trucks on such other scales as the Engineer may designate.

C. Measurement by Volume:

1. Measurement by volume will be by the cubic dimension indicated in the Contractor's submitted bid. Method of volume measurement will be by the unit volume in place or removed as shown on the Contract Drawings or as specified.
2. When material is to be measured and paid for on a volume basis and it is impractical to determine the volume by the specified method of measurement, or when requested by the Contractor in writing and accepted by the Engineer in writing, the material may be weighed in accordance with the requirements specified for weight measurement. Such weights will be converted to volume measurement for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Resident Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities will be accepted.

D. Measurement by Area: Measurement by area will be by the square dimension shown on the Contract Drawings or as specified. Method of square measurement will be as specified.

E. Linear Measurement: Linear measurement will be by the linear dimension listed or indicated in the Contractor's submitted bid. Unless otherwise indicated, items, components, or Work to be measured on a linear basis will be measured at the centerline of the item in place.

F. Field Measurement for Payment:

1. The Contractor shall take all measurements by providing equipment, workers, and survey crews as required to measure quantities in accordance with the provisions for measurement specified herein. No allowance will be made for specified tolerances.
2. The Engineer will verify all quantities of Work performed by the Contractor on a unit-price basis, for progress payment purposes.

1.06 REJECTED, EXCESS, OR WASTED MATERIALS

A. Quantities of material wasted or disposed of in a manner not called for under the Contract; rejected loads of material, including material rejected after it has been placed by reasons of the failure of the Contractor to conform to the provisions of the Contract; material not unloaded from the transporting vehicle; material placed outside the lines indicated on the Contract Drawings or established by the Engineer; or material remaining on hand after completion of the Work, will not be paid for, and such quantities shall not be included in the final total quantities. No

additional compensation will be permitted for loading, hauling, and disposing of rejected material.

1.07 MEASUREMENT AND PAYMENT

- A. Item #1.01, 1.02, 1.03: Mobilization and Demobilization
 1. Payment for Mobilization and Demobilization shall be for preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to and from the project site; temporary facilities and controls; for the establishment and removal of its offices, buildings and other facilities necessary for work on the project; for other work and operations which it must perform or costs it must incur before beginning production work on the various items on the project site, and for removal of personnel, equipment, supplies, offices, building facilities, sheds, fencing, and other incidentals from the site.
 2. Mobilization and Demobilization shall be paid at the lump sum price listed in the Contractor's submitted bid. Incremental payment shall be made for each location as follows:
 - a. 40% after completion of 5% of the total contract amount of other bid items have been earned.
 - b. 40% after completion of 20% of the total contract amount of other bid items have been earned.
 - c. 20% after completion of all work on the project has been completed, including cleanup and acceptance of the project by the Port.
- B. Item #2.01, 2.02, 2.03: Project Administration
 1. Item Description: The Work of this item includes all administrative costs associated with administering and supervising the project including, but not limited to supervision of personnel, coordination of all work activities, coordination of subcontractors and/or suppliers, preparation and transmittal of submittals, permit acquisitions, for premiums on bonds and insurance for the project, and project overhead.
 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.
- C. Item #3: Pier 3 Pile Cap Spall Repair (201130.01)
 1. Item Description: The Work of this item includes sawcutting, concrete removal, surface roughening, reinforcement steel preparation, anode installation, formwork, wetting, high performance cementitious concrete repair material, formwork removal and disposal as well as labor, equipment and miscellaneous materials required for a complete repair as shown in the contract Drawings and Specifications.
 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.
- D. Item #4: WUT Spall and Crack Repairs (201130.02)

1. Item Description: The Work of this item includes sawcutting, concrete removal, surface roughening, reinforcement steel preparation, anode installation, formwork, wetting, high performance cementitious concrete repair material, formwork removal and disposal as well as labor, equipment and miscellaneous materials required for a complete repair as shown in the contract Drawings and Specifications.
2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
3. Payment: This item will be paid for based on actual quantities for the period being billed.

E. Item #[5]: EB1 Edge Beam Spall Repairs (201130.03)

1. Item Description: The Work of this item includes sawcutting, concrete removal, surface roughening, reinforcement steel preparation, anode installation, formwork, wetting, high performance cementitious concrete repair material, formwork removal and disposal as well as labor, equipment and miscellaneous materials required for a complete repair as shown in the contract Drawings and Specifications.
2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
3. Payment: This item will be paid for based on actual quantities for the period being billed.

F. Item #[6]: EB1 Pile Crack Repairs (201130.03)

1. Item Description: The Work of this item includes high pressure water cleaning with salt removal compound, surface preparation and application of surface-applied epoxy. The work includes all labor and materials as needed to provide for a complete repair as shown in the contract Drawings and as defined in the contract specifications.
2. Measurement: This item will be measured by linear foot.
3. Payment: This item will be paid for based on actual quantities for the period being billed.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. The Port and Contractor shall use the Port Contract Management application (e-Builder®) for electronic information exchange throughout the duration of the Contract, as later described.
 - 1. e-Builder® is a web-based application accessed via the web.
 - 2. The Contractor will receive up to two separate user accounts for access to e-Builder®.
 - 3. The joint use of this system is to facilitate and coordinate the electronic exchange of Requests for Information, Submittals, Change Order Proposals, Pay Applications, and project specific correspondence.

1.02 USER ACCESS LIMITATIONS

- A. Contractor's access to e-Builder® is granted and controlled by the Engineer.
 - 1. The users assigned by the Contractor to use e-Builder® shall be competent and experienced with the practices commonly employed in the industry for electronically submitting requests for information, submittals, product data, shop drawings and related items as required by the contract and the methods commonly used for project correspondence transmission and filing.
 - 2. Any users assigned by the Contractor whom the Engineer determines is incapable of performing the prescribed tasks in an accurate, competent and efficient manner will be removed upon request from the Engineer. The qualifications and identity of a replacement user shall be submitted within 24 hours for consideration by the Engineer. Once accepted by the Engineer, the user account will be modified accordingly.

1.03 CONTRACTOR TECHNOLOGY REQUIREMENTS

- A. The Contractor is responsible for providing and maintaining web enabled devices capable of running the desktop version of the e-Builder® website effectively.

1.04 CONTRACTOR SOFTWARE REQUIREMENTS

- A. The Contractor is responsible for providing and maintaining the following:
 - 1. An office suite that is Microsoft Office 2013 compatible for generation and manipulation of correspondence.
 - 2. A program capable of editing, annotating and manipulating Adobe pdf files for inserting the Contractor's review stamp, clouding and adding notation to the files as necessary for review by the Engineer.

1.05 CONTRACTOR RESPONSIBILITY

- A. Provide all the equipment, internet connections, software, personnel and expertise required to support the use of e-Builder® as described in the Contract documents.

1.06 PORT RESPONSIBILITY

- A. Provide the Contractor with the following:
 - 1. All forms necessary for application to obtain permissions to access e-Builder® as described above.
 - 2. Information, basic user guides and requirements on methods for using e-Builder®.
 - 3. Instruction for the Contractor's staff utilizing e-Builder®.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 UTILIZATION OF E-BUILDER®

- A. The Contractor shall provide required information in a timely manner that also supports the project schedule and meets the requirements of the Contract.
- B. The Contractor shall provide and maintain competent and qualified personnel to perform the various tasks required to support the work within e-Builder®.
- C. The Port will not be liable for any delays associated from the usage of e-Builder® including, but not limited to: slow response time, Port maintenance and off-line periods, connectivity problems or loss of information. Under no circumstances shall the usage of e-Builder® software be grounds for a time extension or cost adjustment to the contract.

END OF SECTION

PART 1 GENERAL

1.01 SUMMARY

- A. This section includes the requirements to provide a preliminary schedule and construction progress schedule, bar chart type.

1.02 SUBMITTALS

- A. Within 10 days following execution of the contract, submit a baseline project schedule defining planned operations.
- B. If the baseline project schedule requires revision after review, submit revised baseline project schedule within 10 days.
- C. Within 20 days after review of baseline project schedule, submit draft of proposed complete baseline project schedule for review.
- D. Submit updated progress schedule monthly to the Engineer with each pay application as required in Section 01 20 00 Price and Payment Procedures.

1.03 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel or Consultant specializing in Critical Path Method (CPM) scheduling with one year's minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.

1.04 SCHEDULE FORMAT

- A. The baseline project schedule shall be produced using the CPM format.
- B. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- C. Sheet Size: Multiples of 11 x 17 (280 x 432 mm).

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 BASELINE SCHEDULE

- A. Prepare baseline project schedule in the form of a horizontal bar chart.
- B. The baseline project schedule shall include all the activities listed in the Schedule of Values and be directly related to items listed in the Bid Form. The Contractor is encouraged to add sufficient activities to facilitate a clear understanding of the means and methods planned for the various work items.
- C. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction and critical path. At a minimum it shall include and show the following:
 1. A time scale showing the elementary work items needed to complete the work;
 2. Estimated time durations for each activity, defined as any single identifiable work step within the project;
 3. A graphical network diagram showing the logical sequence of activities, their precedence relationships, and estimated float or leeway available for each;

4. The different categories of work as distinguished by crew requirements, equipment requirements, and construction materials; and
5. The different areas of responsibility, such as distinctly separate or subcontracted work, and identifiable subdivisions of work.

D. It shall be maintained and updated as necessary to accurately reflect past progress and the most probable future progress.

E. Activities shown shall include submittals, milestones, and sufficient task breakdown for major components of work.

F. Identify work of separate stages and other logically grouped activities.

G. Provide sub-schedules to define critical portions of the entire schedule.

H. Provide separate schedule of submittal dates for shop drawings, product data, samples, owner-furnished products, products identified, and dates reviewed submittals will be required from the Engineer. Indicate decision dates for selection of finishes.

3.02 PROGRESS SCHEDULE

- A. From the regularly-maintained baseline project schedule, progress schedules showing a three-week look-ahead, one-week look-back, shall be submitted and distributed at the weekly progress meetings. The progress schedule shall represent a practical plan to complete the work shown within the contract work window presented. At a minimum, the presentation, typically a Gantt-style chart, shall convey the task durations, a logical work sequence, task interdependencies, and identify important or critical constraints.
- B. Submittal and distribution of progress schedules will be understood to be the Contractor's representation that the scheduled work meets the requirements of the contract documents and that the work will be executed in the manner and sequence presented, and over the durations indicated.
- C. The scheduling, coordination, and execution of construction in accordance with the contract documents are the responsibility of the Contractor. The Contractor shall involve, coordinate, and resolve scheduling with all subcontractors, material suppliers, or others affected in development of the progress schedules.
- D. The progress schedule shall be used for coordination purposes for inspection and testing purposes as well as validation of work progress against the baseline schedule.

3.03 UPDATING SCHEDULE

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- D. Indicate changes required to maintain Date of Substantial Completion.
- E. Submit reports required to support recommended changes.
- F. Contractor shall submit an updated progress schedule with each pay application and include a written narrative describing the overall progress of the work. The narrative shall include the following key aspects:
 1. Progress in the last period.

2. Critical Path progress and schedule concerns.
3. Changes to schedule logic or sequencing of the work.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes the requirements to provide a submittal log and project submittals.

1.02 SUBMITTAL LOG

- A. Contractor shall, within 14 days of contract execution prepare and submit for Engineer approval a detailed log of all the submittals required under this Contract, along with any other submittals identified by the Port or Contractor. The log shall include, but not be limited to, schedules, required construction Work plans, equipment and material cut sheets, shop drawings, project record documents, test results, survey records, record drawings, results of QC testing, and all other items for which a submittal is required. The submittal log shall be organized by CSI Specification Division, and Section number and include the following information:

1. Item Description
2. Category
3. Specification Section information of the applicable section
4. After the submittal log is reviewed and approved by the Engineer, it shall become the basis for the submittal of all items by Contractor.

1.03 COMPLIANCE

- A. Failure to comply with these requirements shall be deemed as the Contractor's agreement to furnish the exact materials specified or materials selected by the Engineer based on these specifications.

1.04 SHOP DRAWINGS AND MANUFACTURERS' LITERATURE

- A. The Port will not accept shop drawings that prohibit the Port from making copies for its own use.
- B. Shop drawings shall be prepared accurately and to a scale sufficiently large to indicate all pertinent features of the products and the method of fabrication, connection, erection, or assembly with respect to the Work.
- C. All drawings submitted to the Engineer for approval shall be drawn to scale as ANSI D.
- D. Required electronic formats for these drawings are as follows:
 1. AutoCad DWG
 2. PDF - Formatted to print to half-scale using 11x17 paper
- E. Catalog cuts or brochures shall show the type, size, ratings, style, color, manufacturer, and catalog number of each item and be complete enough to provide for positive and rapid identification in the field. General catalogs or partial lists will not be accepted. Manufacturers' original electronic files are required for submitting.

1.05 SUBMITTAL REVIEW

- A. After review of each of Contractor's submittals, the submittal will be returned to Contractor with a form indicating one or more of the following:
 1. No Exceptions Taken - Means, accepted subject to its compatibility with future submittals and additional partial submittals for portions of the work not covered in this submittal. But it does not constitute approval or deletion of specified or required items not shown in the partial submittal.

2. Make Corrections Noted - Same as Item 1, except that minor corrections as noted shall be made by Contractor.
3. Reviewed - Submittal has been reviewed by the Port, does not constitute approval, and the Contractor is responsible for requirements in submittal.
4. Review as Noted - Submittal has to be reviewed by the Port with comments as noted.
5. Revise and Resubmit - Means, rejected because of major inconsistencies or errors. Resolve or correct before next submittal.
6. Rejected - Means, submitted material does not conform to the Contract Documents in a major respect (e.g., wrong material, size, capacity, model, etc.).

B. Submittals marked "No Exceptions Taken," "Make Corrections Noted," or "Reviewed as Noted" authorizes Contractor to proceed with construction covered by those data sheets or shop drawings with corrections, if any, incorporated.

C. When submittals or prints of shop drawings have been marked "Revise and Resubmit" or "Rejected," Contractor shall make the necessary corrections and submit required copies. Every revision shall be shown by number, date, and subject in a revision block, and each revised shop drawing shall have its latest revision numbers and items clearly indicated by clouding around the revised areas on the shop drawing.

D. Submittals authorized by the Engineer do not in any case supersede the Contract Documents. The approval by the Engineer shall not relieve the Contractor from responsibility to conform to the Drawings or Specifications, or correct details when in error, or ensure the proper fit of parts when installed. A favorable review by the Port of shop drawings, method of work, or information regarding material and equipment Contractor proposes to furnish shall not relieve Contractor of its responsibility for errors therein and shall not be regarded as assumption of risk or liability by the Port or its officers, employees, or representatives. Contractor shall have no claim under the Contract on account of failure or partial failure, or inefficiency or insufficiency of any plan or method of work, or material and equipment so accepted. Favorable review means that the Port has no objection to Contractor using, upon its own full responsibility, the plan or method of work proposed, or furnishing the material and equipment proposed.

E. It is considered reasonable that the Contractor's submittals shall be complete and acceptable by at least the second submission of each submittal. The Port reserves the right to deduct monies from payments due Contractor to cover additional costs for review beyond the second submission.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PREPARATION OF SUBMITTALS

- A. The Contractor shall submit all shop drawings, catalog cuts, brochures and physical samples using e-Builder® (a web based construction management software). All post-document-generated notations such as notes, arrows, stamps, clouding, or other items, are required to be shown directly on the submittal document. **Each submittal shall be accompanied by a transmittal developed within the e-Builder® software.**
- B. A separate submittal shall be prepared for each product or procedure and shall be further identified by referencing the Specification Section and paragraph number and each submittal shall be numbered consecutively.

- C. Product submittals that cannot be accomplished electronically shall be submitted electronically without attachments, marked as being hand delivered, and accompanied by a printed version of a transmittal.
- D. Shop and detail drawings shall be submitted in related packages. All equipment or material details which are interdependent, or are related in any way, must be submitted indicating the complete installation. Submittals shall not be altered once marked "No Exceptions Taken" Revisions shall be clearly marked and dated. Major revisions must be submitted for approval.
- E. The Contractor shall thoroughly review all shop and detail drawings, prior to submittal, to assure coordination with other parts of the work.
- F. Components or materials which require shop drawings and which arrive at the job site prior to approval of shop drawings shall be considered as not being made for this project and shall be subject to rejection and removal from the premises.
- G. All submittal packages including, but not limited to, product data sheets, mix designs, shop drawings and other required information for submittal must be submitted, reviewed and approved before the relevant scheduled task may commence. It is the responsibility of the Contractor to provide the submittal information which may drive a task on the construction schedule to submit items well enough in advance as to provide adequate time for review and comment from the Engineer without adversely impacting the construction schedule.
- H. When completing the e-Builder® submittal form, a Date Due field is required to be completed. This field is intended to inform the Port of the urgency of the submittal. Failure of the Port to return the submittal by the date provided by the Contractor will not be considered grounds for a contract time extension.

3.02 PRE-WORK SUBMITTALS

- A. Prior to issuance of Notice to Proceed, the following submittals must be submitted and returned to the Contractor as No Exceptions Taken, Make Corrections Noted, Reviewed, or Reviewed as Noted.
 - 1. Per 00 72 00 and 01 32 16, Baseline Project Schedule
 - 2. Per 00 73 63, Emergency Contact Numbers
 - 3. Per 01 35 29, Health and Safety Plan (HASP)
 - 4. Per 01 35 29, Spill Prevention and Countermeasures Plan (SPCC)
 - 5. Per 01 35 47, List of equipment and written certification

3.03 MAINTENANCE OF SUBMITTAL LOG

- A. Prepare and submit for Port review a detailed submittal log conforming to the requirements of paragraph 1.02 of this section. When approved by the Engineer, use the submittal log to track the transmittal of submittals to the Engineer, the receipt of submittal comments from the Engineer, and all subsequent action with respect to each submittal. Provide an updated copy of the submittal log to the Engineer during each weekly progress meeting, unless otherwise approved by the Engineer.

END OF SECTION

PART 1 - GENERAL**1.01 SUMMARY**

- A. The work includes the requirements for health and safety provisions necessary for all work at the site for this project. The work also includes compliance with all laws, regulations and ordinances with respect to safety, noise, dust, fire and police action, civil disobedience, security or traffic.
- B. Some of the work tasks may place workers in the potential position of coming into contact with regulated building materials, waste, or environmental media. Detailed information regarding the known nature and extent of refuse and regulated materials in the project area is included in Section 00 31 26 Existing Hazardous Material Information.
- C. The Contractor shall monitor site conditions for indications of identified and other potentially hazardous, dangerous, and/or regulated materials (suspicious material). Indicators of suspicious material include, but are not limited to, refuse, oily sheen or coloring on soil or water, or oily or chemical odors. If suspicious materials are encountered, the Contractor shall stop all work in that area and notify the Engineer immediately.

1.02 SUBMITTALS

- A. Prior to Notice to Proceed, the Contractor shall provide a site specific Health and Safety Plan (HASP), which meets all the requirements of local, state and federal laws, rules and regulations. The HASP shall address all requirements for general health and safety and shall include, but not be limited to:
 1. Description of work to be performed and anticipated chemical and/or physical hazards associated with the work;
 2. Map of the site(s) illustrating the location of the anticipated hazards and areas of control for those hazards (including containments, exclusion/work zones, and contaminant reduction/decontamination zones);
 3. Hazardous material inventory and safety data sheets (SDSs) for all chemicals which will be brought on site;
 4. Signage appropriate to warn site personnel and visitors of anticipated site hazards;
 5. Engineering controls/equipment to be used to protect against anticipated hazards;
 6. Personal protective equipment and clothing including head, foot, skin, eye, and respiratory protection;
 7. Procedures which will be used for:
 - a. Fall protection,
 - b. Suspicious materials and/or unidentified materials,
 - c. Odorous conditions and toxic gases;
 8. Site housekeeping procedures and personal hygiene practices;
 9. Emergency plan including locations of and route to nearest hospital;
 10. Name and qualification of person preparing the HASP and person designated to implement and enforce the HASP;
 11. Lighting and sanitation; and

12. Signatory page for site personnel to acknowledge receipt, understanding, and agreement to comply with the HASP.
- B. Prior to the start of any Work, the Contractor shall provide a site specific Spill Prevention, Control and Countermeasures (SPCC) Plan, which meets all the requirements of local, state and federal laws, rules and regulations.
- C. Contractor may submit the HASP and SPCC Plan as one comprehensive document or may submit the plans as separate documents.
- D. The Contractor shall include in the HASP recent requirements associated with the State's COVID-19 Job Site Requirements as noted at in Appendix B or online at <https://www.governor.wa.gov/sites/default/files/Phase%201%20Construction%20COVID-19%20Safety%20Requirements%20%28final%29.pdf>.

1.03 POTENTIAL CHEMICAL HAZARDS

- A. Site Contaminants
 1. The Contractor must provide site workers with Hazard Communication standard information for potential site contaminants (in accordance with WAC 296-843). The Contractor shall ensure that all site workers are aware of and understand this information. Additional information shall also be provided by the Contractor, as necessary, to meet the Hazard Communication Standard and HASP requirements as noted in WAC 296-901-14010 and 296-843. Workers shall be instructed on basic methods or techniques to assist in detecting suspicious material.
- B. Potential Exposures Routes
 1. Inhalation: Airborne dusts, fibers, particulates, or vapors may be released during site activities.
 2. Skin and Eye Contact: Dusts generated during site work activities may settle on the skin or clothing of site workers. Also, workers may contact potentially regulated sediments, or water, in the normal course of their work. Precautions to prevent skin or eye contact with hazardous materials will be included in the HASP.
 3. Ingestion: Inadvertent transfer of site contaminants from hands or other objects to the mouth could occur if site workers eat, drink, smoke, chew tobacco, or engage in similar activities in work areas. This could result in ingestion of site contaminants. Precautions to prevent accidental or inadvertent ingestion of hazardous materials will be included in the HASP.
- C. Chemical hazards may also result from Contractor operations resulting in inadvertent release of fuel, oil, or other chemicals in a manner that would expose workers.

1.04 POTENTIAL PHYSICAL AND OTHER HAZARDS

- A. The Work of the Contractor is described elsewhere in these specifications. Precautions to prevent all anticipated physical and other hazards, including heavy equipment and vessels, shall be addressed in the HASP.
- B. Specific aspects of construction resulting in physical hazards anticipated for this project include, but are not limited to the following:
 1. Work over or adjacent to water, presenting hazards of falling into water, hypothermia from exposure to the elements, and drowning;

2. Operation of marine equipment, including winches, dredges, and related equipment, entrapment, ensnarement, and being struck by moving parts hazards;
3. Operation of equipment, including excavators, loaders, and related equipment, presenting hazards of entrapment, ensnarement, and being struck by moving parts.

C. Other anticipated physical hazards:

1. Heat stress, such as that potentially caused by impermeable clothing (may reduce the cooling ability of the body due to evaporation reduction);
2. Cold stress, such as that potentially caused during times when temperatures are low, winds are high, especially when precipitation occurs during these conditions;
3. Biological hazards, such as mold, insect stings, or bites, poisonous plants (i.e., poison oak, sumac, etc.); and
4. Trips and falls.

PART 2 - PRODUCTS

2.01 SAFETY SIGNAGE

- A. The Contractor shall provide signage at strategic locations within the project site to alert jobsite workers and visitors of the remediation work, associated hazards, and required precautions.

2.02 PRODUCTS SPECIFIED FOR HEALTH AND SAFETY

- A. Provide the equipment and supplies necessary to support the work as described in the site-specific HASP. Equipment and supplies may include, but are not limited to:
 1. All chemicals to be used on site;
 2. A hazardous materials inventory and SDSs for the chemicals brought on site;
 3. Enclosure equipment (for dust and particle control);
 4. Fencing and barriers;
 5. Warning signs and labels;
 6. Scaffolding and fall protection equipment;
 7. Personal protective equipment (hard hats, foot gear, skin, eye, and respiratory protection);
 8. Demolition equipment and supplies;
 9. First aid equipment;
 10. Spill response and spill prevention equipment; and
 11. Field documentation logs/supplies.

PART 3 - EXECUTION

3.01 WORK AREA PREPARATION

- A. Contractor shall comply with health and safety rules, regulations, ordinances promulgated by the local, state, and federal government, the various construction permits, and other sections of the Contract Documents. Such compliance shall include, but not be specifically limited to: any and all protective devices, equipment and clothing; guards; restraints; locks; latches; switches; and other safety provisions that may be required or necessitated by state and federal safety regulations. The Contractor shall determine the specific requirements for safety provisions and

shall have inspections and reports by the appropriate safety authorities to be conducted to ensure compliance with the intent of the regulations.

- B. Contractor shall inform employees, subcontractors and their employees of the potential danger in working with any potentially regulated materials, equipment, soils and groundwater at the project site.
 - 1. The Contractor shall not proceed with jobsite activities that might result in exposure of employees to hazardous materials until the HASP is reviewed by the Engineer.
 - 2. In addition, the Engineer will submit a copy of the Contractor's HASP to Ecology for review. Ecology and the Engineer will review but not approve HASP.
- C. All Contractor employees expected to work at the jobsite or individuals entering the jobsite shall read the Contractor HASP before they enter the jobsite, and will sign a statement provided by the Contractor that they have read and understand the HASP. A copy of the Contractor's HASP shall be readily available at the site at all times the work is being performed.
- D. The Contractor's HASP shall be amended as needed to include special work practices warranted by jobsite conditions actually encountered.
- E. Contractor shall perform whatever work is necessary for safety and be solely and completely responsible for conditions of the job site, including safety of all persons (including employees of the Engineer, Engineer's Representative, and Contractor) and property during the Contract period. This requirement applies continuously and is not limited to normal working hours.
- F. The Engineer's review of the Contractor's performance does not include an opinion regarding the adequacy of, or approval of, the Contractor's safety supervisor, the site-specific HASP, safety program or safety measures taken in, on, or near the job site.
- G. Accidents causing death, injury, or damage must be reported immediately to the Engineer and the Port Security Department in person or by telephone or messenger. In addition, promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.
- H. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing within 24 hours after occurrence, to the Engineer, giving full details of the claim.

3.02 SITE SAFETY AND HEALTH OFFICER

- A. Contractor shall provide a person designated as the Site Safety and Health Officer, who is thoroughly trained in rescue procedures, has a minimum current 40-hour HAZWOPER certification (minimum), and trained to use all necessary safety equipment, air monitoring equipment, and gas detectors. The person must be available and/or present at all times while work is being performed, and conduct testing, as necessary.
- B. The Site Safety and Health Officer shall be empowered with the delegated authority to order any person or worker on the project site to follow the safety rules. Failure to observe these rules is sufficient cause for removal of the person or worker(s) from this project.
- C. The Site Safety and Health Officer is responsible for determining the extent to which any safety equipment must be utilized, depending on conditions encountered at the site.

3.03 SPILL PREVENTION AND CONTROL

- A. The Contractor shall be responsible for prevention, containment and cleanup of spilling petroleum and other chemicals/hazardous materials used in the Contractor's operations. All

such prevention, containment and cleanup costs shall be borne by the Contractor.

- B. The Contractor is advised that discharge of oil, fuel, other petroleum, or any chemicals/hazardous materials from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.
- C. In the event of a discharge of oil, fuel or chemicals/hazardous materials into waters, or onto land with a potential for entry into waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of all spilled material and used cleanup materials.
- D. The Contractor shall, at a minimum, take the following measures regarding spill prevention, containment and cleanup:
 1. Fuel hoses, lubrication equipment, hydraulically operated equipment, oil drums and other equipment and facilities shall be inspected regularly for drips, leaks or signs of damage, and shall be maintained and stored properly to prevent spills. Proper security shall be maintained to discourage vandalism.
 2. All land-based chemical, oil and products' storage tanks shall be diked, contained and/or located so as to prevent spills from escaping into the water. Dikes and containment area surfaces shall be lined with impervious material to prevent chemicals or oil from seeping through the ground and dikes.
 3. All visible floating sheen shall be immediately contained with booms, dikes or other appropriate means and removed from the water prior to discharge into state waters. All visible spills on land shall be immediately contained using dikes, straw bales or other appropriate means and removed using sand, sawdust or other absorbent material, which shall be properly disposed of by the Contractor. Waste materials shall be temporarily stored in drums or other leak-proof containers after cleanup and during transport to disposal. Waste materials shall be disposed offsite in accordance with applicable local, state and federal regulations.
 4. In the event of any oil or product discharges into public waters, or onto land with a potential for entry into public waters, the Contractor shall immediately notify the Port Security at their listed 24-hour response number:
 - a. Port Security: 253-383-9472
- E. The Contractor shall maintain the following materials (as a minimum) at each of the project sites:
 1. Oil-absorbent booms: 100 feet;
 2. Oil-absorbent pads or bulk material, adequate for coverage of 200 square feet of surface area;
 3. Oil-skimming system; and
 4. Oil dry-all, gloves, and plastic bags.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. This Section discloses procedures to follow if unknown regulated materials are encountered.

1.02 NOTIFICATION AND SUSPENSION

A. In the event the Contractor detects the presence of potentially regulated materials not previously identified in this specification, the Contractor shall stop work and immediately notify the Port. Following such notification by the Contractor, the Port shall in turn notify the various governmental and regulatory agencies concerned with the presence of regulated materials, if warranted. Depending upon the type of materials identified, the Port may suspend work in the vicinity of the discovery under the provisions of General Conditions.

1. Following completion of any further testing necessary to determine the nature of the materials involved, the Port will determine how the material shall be managed. Although the actual procedures used in resuming the work shall depend upon the nature and extent of the regulated material, the following alternate methods of operation are foreseen as possible:
 - a. Contractor to resume work as before the suspension.
 - b. Contractor to move its operations to another portion of the work until measures to eliminate any hazardous conditions can be developed and approved by the appropriate regulatory agencies.
 - c. The Port to direct the Contractor to dispose or treat the material in an approved manner.
 - d. The Port to terminate or modify the Contract accordingly, for unforeseen conditions.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. The Work includes the requirements to provide air and noise control measures until Final Completion of the Work.

1.02 SUBMITTALS

- A. Prior to Notice to Proceed, the Contractor shall submit a list of equipment to be used on the project and written certification that all equipment on the list and any additional equipment, including Contractor's, subcontractors or supplier's equipment, shall meet the requirements of 3.01 below.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION

3.01 AIR POLLUTION CONTROL

- A. The Contractor shall meet or exceed EPA Tier 2 off-road diesel engine emission standards for off-road equipment $\geq 25\text{hp}$ and meet or exceed EPA 1994 on-road diesel engine emission standards for on-road equipment except as follows:
 - 1. Equipment being used in an emergency or public safety capacity
 - B. The Contractor shall not discharge smoke, dust, and other hazardous materials into the atmosphere that violate local, state or federal regulations.
 - C. No vehicles can idle for more than 5 consecutive minutes, except as follows:
 - 1. Idling is required to bring or maintain the equipment to operating temperature;
 - 2. Engine idling is necessary to accomplish work for which the equipment was designed (i.e. operating a crane); or
 - 3. Idling vehicles being used in an emergency or public safety capacity.
 - D. The Contractor shall minimize nuisance dust by cleaning, sweeping, vacuum sweeping, sprinkling with water, or other means. Equipment for this operation shall be on the job site or available at all times.

3.02 NOISE CONTROL

- A. The Contractor shall comply with all local controls and noise level rules, regulations and ordinances which apply to work performed pursuant to the Contract.
- B. All internal combustion engines used on the job shall be equipped with a muffler of a type recommended by the manufacturer.

END OF SECTION

PART 1 - GENERAL

1.01 PERMITS, CODES, AND REGULATIONS

- A. The following permits/approvals have been applied for (or are on file) and incorporated into the Contract:
 1. Section 401 Water Quality Certification: Water Quality Certification Order No. 15952 for Corps Public Notice No. NWS-2011-0089-WRD (Appendix C.1)
 2. Shoreline Substantial Development Permit Exemption File No. LU18-0303 - POT Programmatic Pile Repair Project (Appendix C.2)
 3. Corps of Engineers - NWS-2011-0089-WRD Port of Tacoma Programmatic Piling Repair (Appendix C.3)
 4. WDFW - Hydraulics Project Approval 2021-6-79+01 (Appendix C.4)
- B. Conform with the requirements of listed permits and additional or other applicable permits, codes, and regulations as may govern the Work.
- C. Obtain and pay fees for licenses, permits, inspections, and approvals required by laws, ordinances, and rules of appropriate governing or approving agencies necessary for proper completion of Work (other than those listed under item 1.01.A above and Special Inspections called for by the International Building Code).
- D. Conform with current applicable codes, regulations and standards, which is the minimum standard of quality for material and workmanship. Provide labor, materials, and equipment necessary for compliance with code requirements or interpretations, although not specifically detailed in Drawings or specifications. Be familiar with applicable codes and standards prior to bidding.
- E. Process through Engineer, request to extend, modify, revise, or renew any of the permits (listed in 1.01.A above). Furnish requests in writing and include a narrative description and adequate Drawings to clearly describe and depict proposed action. Do not contact regulatory agency with requests for permit extensions, modifications, revisions, or renewals without the prior written consent of the Engineer.

1.02 VARIATIONS WITH CODES, REGULATIONS AND STANDARDS

- A. Nothing in the Drawings and specifications permits Work not conforming to codes, permits, or regulations. Promptly submit written notice to the Engineer of observed variations or discrepancies between the Contract Documents and governing codes and regulations.
- B. Appropriate modifications to the Contract Documents will be made by Change Order to incorporate changes to Work resulting from code and/or regulatory requirements. Contractor assumes responsibility for Work contrary to such requirements if Work proceeds without notice.
- C. Contractor is not relieved from complying with requirements of Contract Documents which may exceed, but not conflict with requirements of governing codes.

1.03 COORDINATION WITH REGULATORY AGENCIES

- A. Coordinate Work with Engineer who shall complete necessary regulatory agency notifications.
- B. Provide advance notification to the Engineer of Project schedule and schedule revisions throughout Project duration, in order to allow proper scheduling of inspection visits at proper stages of Work completion.

C. Regulation coordination is in addition to inspections conducted by Engineer. Notify Engineer at least 48 hours in advance of scheduled inspections involving outside regulating officials, to allow Engineer to be present for inspections.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements relating to referenced standards.

1.02 QUALITY ASSURANCE

- A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue specified in this section, except where a specific date is established by applicable code.
- C. Should specified reference standards conflict with Contract Documents, request clarification from the Engineer before proceeding.
- D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 QUALITY CONTROL FOR COMPLIANCE:

- A. The Contractor shall perform such detailed examination, inspection, quality control and assurance of the Work as to ensure that the Work is progressing and is being completed in strict accordance with the Contract Documents. The Contractor shall plan and lay out all Work in advance of operations so as to coordinate all Work without delay or revision. The Contractor shall be responsible for inspection of portions of the Work already performed to determine that such portions are in proper condition to receive subsequent Work. Under no conditions shall a portion of Work proceed prior to preparatory work having been satisfactorily completed. The Contractor shall ensure that the responsible Subcontractor has carefully examined all preparatory work and has notified the Contractor (who shall promptly notify the Port in writing) of any defects or imperfections in preparatory work that will, in any way, affect completion of the Work.

1.02 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop Drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 TOLERANCES

- A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.04 TESTING SERVICES

- A. Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities.
 1. Neither observations by an inspector retained by the Port, the presence or absence of such inspector at the site, nor inspections, tests, or approvals by others, shall relieve the Contractor from any requirement of the Contract Documents, nor is any such inspector authorized to change any term or condition of the Contract Documents.

- B. Necessary materials testing shall be performed by an independent testing laboratory during the execution of the Work and paid for by the Port of Tacoma, unless otherwise specified. Access to the area necessary to perform the testing and/or to secure the material for testing, shall be provided by the Contractor.
- C. Testing does not relieve Contractor from performing work to contract requirements.
- D. Re-testing required because of non-conformance to specified requirements will be charged to the Contractor by deducting testing charges from the Contract Sum via Change Order.
- E. Material testing for initial material approval will be performed by an independent, certified laboratory and paid for by the Contractor. These tests must be dated within six (6) months of the submittal date.
- F. Subsequent sampling and testing, required as the work progresses to ensure continual control of materials and compliance with all requirements of the Contract documents, shall be the responsibility of the Port, except as required by other sections of these Specifications.

1.05 MANUFACTURER'S FIELD SERVICES

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up equipment, test, and adjust and balance equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Engineer 30 days in advance of required observations. Observer subject to approval of Engineer.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements relating to the following:
 - 1. Temporary telecommunications services,
 - 2. Temporary sanitary facilities,
 - 3. Temporary Controls: Barriers, and

1.02 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization. It is the Contractor's responsibility to be able to receive phone calls and emails at the job site.

1.03 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.
- C. At end of construction, return facilities to same or better condition as originally found.

1.04 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for Port's use of site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes requirements relating to the following:

1. Access roads
2. Parking
3. Construction parking controls
4. Traffic Control
5. Flares and lights
6. Haul routes

PART 2 - PRODUCTS

2.01 SIGNS, SIGNALS, AND DEVICES

A. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions.

PART 3 - EXECUTION

3.01 ACCESS TO SITE

A. Contractor shall conduct all business through the gate assigned by the Engineer.

1. The Contractor may be required to relocate entry and related work areas as required by Port Operations.

3.02 PARKING

- A. Only labeled Contractor's work vehicles equipped with flashing lights will be parked on-site as necessary to support the Work.
- B. Contractor's employees shall park private vehicles outside of the terminal unless provided designated parking areas as designated by and coordinated through the engineer.

3.03 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with Port operations.
- B. Prevent parking on or adjacent to access roads or in non-designated areas.

3.04 TRAFFIC CONTROL

A. The Contractor shall erect and maintain all construction signs, warning signs, detour signs, flaggers and other traffic control devices necessary for the safe ingress and egress of the Project Site. Traffic control shall include but is not limited to:

1. The Contractor shall be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or any negligence in connection therewith.
2. Flagging, signs, and all other traffic control devices furnished or provided shall conform to established WSDOT and City of Tacoma standards. No work shall be done on or adjacent to the above locations until all necessary signs and traffic control devices are in place. During the course of the work, the Contractor shall be responsible for providing and maintaining adequate traffic control measures for the protection of the Contractor's work and the public.

3.05 FLARES AND LIGHTS

- A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.06 HAUL ROUTES

- A. Confine construction traffic to designated haul routes shown in the Drawings.
- B. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.

3.07 MAINTENANCE

- A. Maintain traffic and parking areas in a sound condition free of excavated material, construction equipment, Products, mud, snow, and ice.

3.08 REMOVAL, REPAIR

- A. Repair existing facilities damaged by use, to original condition.
- B. Repair damage caused by installation.

3.09 PUBLIC STREET AND ONSITE ROADWAY CLEANING

- A. The Contractor shall be responsible for preventing dirt and dust escaping from trucks and other vehicles operating on or departing the project site by sweeping, covering dusty loads, washing truck tires, and all other reasonable methods.
- B. In the event that the above requirements are violated and no action is taken by the Contractor after notification of infraction by the Engineer, the Port reserves the right to have the streets, roadways, and other paved surfaces in question cleaned by others and have the expense of the operation charged to the Contractor.

END OF SECTION

PART 1 – GENERAL

1.01 SUMMARY

- A. The Work shall consist of planning, installing, inspecting, maintaining and removing Temporary Erosion and Sediment Control (TESC) Best Management Practices (BMPs) to prevent pollution of air and water; and to control, respond to, and dispose of eroded sediment and turbid water during the term of the Contract.
- B. These BMP requirements shall apply to all areas associated with the Work, including but not limited to the following:
 1. Work areas;
 2. Equipment and material storage areas;
 3. Staging areas; and
 4. Discharge points within or adjacent to the work areas that are impacted by stormwater runoff from the site.
- C. Acceptance of BMP plans does not constitute an approval of permanent Work or drainage design (e.g., size and location of roads, pipes, restrictors, channels, retention facilities, utilities, etc.).
- D. Contractor shall read and conform to all requirements set forth in Washington Department of Ecology's (Ecology) Phase I Municipal Stormwater Permit (MS4) for projects less than one acre.

1.02 REFERENCES

- A. The rules, requirements, and regulations that apply to this Work include, but are not necessarily limited to the following:
 1. Washington Department of Ecology, "Stormwater Management Manual for Western Washington," current version.
 2. Washington Department of Ecology Phase I Municipal Stormwater Permit (MS4), current version.
 3. Washington State Department of Transportation, current version, Standard Specification M41-10, Division 8-01 Erosion Control and Water Pollution Control.
 4. Pierce County Stormwater and Site Development Manual, current version (if applicable).

1.03 SUBMITTALS

- A. Prior to the start of any construction activities, a Construction Stormwater Pollution Prevention Plan (SWPPP), as required by the MS4 or acceptance of Port provided SWPPP. The Port's short form can be found in the Appendix A.
 1. Contractor shall comply with a Contractor provided project SWPPP.
 2. Contractor shall be responsible for updating the project SWPPP during construction to reflect the required changes to BMPs and personnel, as needed, to comply with the MS4 at no additional cost to the Port.
- B. Safety Data Sheet (SDS) for any dust palliative product.
- C. A copy of all Contractor site inspection logs at a time interval (e.g., weekly, monthly) specified by the Engineer.

PART 2 – PRODUCTS

2.01 DUST CONTROL

- A. Dust palliative for dust control proposed by the Contractor and approved by the Engineer.

PART 3 – EXECUTION

3.01 GENERAL

- A. The Port is subject to a Phase I Municipal Stormwater Permit (MS4). The Contractor shall be responsible for compliance with the Department of Ecology Western Washington Stormwater Management Manual, Volume II, Construction Stormwater Pollution Prevention for the duration of the project.
- B. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply as determined by the Engineer.
- C. No project discharge of water shall be allowed that exceeds the regulated pollutant levels in Ecology's NPDES permit associated with the Project.
- D. Contractor shall be solely responsible for all BMP modifications and upgrades to comply with the MS4 and the requirements of this Section, at no additional cost to the Port.
- E. Contractor shall be solely responsible for any damages and fines incurred because of Contractor, subcontractor, or supplier actions in implementing the requirements of this Section.
- F. The Contractor shall be solely responsible for schedule impacts incurred because of Contractor, subcontractor, or supplier actions in implementing the requirements of this Section.

3.02 STORMWATER POLLUTION PREVENTION PLAN DEVELOPMENT

- A. Contractor shall prepare and submit a site-specific SWPPP prior to initiating site activities.
 1. The SWPPP describes construction activities and sequencing, and the proposed Temporary and Permanent Erosion and Sediment Control measures. If there are any changes to BMPs or personnel on the site, Contractor must update the SWPPP and be prepared to submit the SWPPP to the Port and Ecology upon request.
 2. A SWPPP template is available to the Contractor for this purpose. The template was prepared by the Port to meet part of the National Pollution Discharge Elimination System (NPDES) stormwater permit requirements for the project. Contractor may use the applicable Port template to prepare the project SWPPP or prepare their own SWPPP. If the Contractor elects to prepare their own SWPPP, it must meet or exceed the control measures required by Ecology (reference Ecology's Stormwater Management Manual for Western Washington, current version).
 3. If Contractor chooses to write a SWPPP separate from the Port-provided SWPPP, it must comply with all of the requirements set forth by the CSGP.
- B. Contractor shall develop project-specific TESC BMPs and incorporate them into the SWPPP. Contractor shall address the following issues as part of developing and implementing the BMPs:
 1. TESC BMPs must meet the requirements in Ecology's Volume II of the Stormwater Management Manual for Western Washington (current version) or equivalent.
 2. BMP notes and details shown in the Drawings and the information in this Section form a basis of the minimum requirements for a BMP Plan. Contractor shall develop a TESC Plan

specific to the construction schedule and proposed means and methods prior to commencing construction activities for the duration of the Project.

C. Contractor shall inspect the existing system and report to the Engineer the levels of existing material prior to installation of BMPs.

3.03 TEMPORARY EROSION AND SEDIMENT CONTROL IMPLEMENTATION

A. Contractor is responsible for implementing and updating the SWPPP including BMPs.

B. Contractor shall clean all stormwater components affected by construction debris prior to Work completion, per BMPs for catch basin maintenance. The cleaning process shall not flush sediment-laden water into a downstream system.

C. Contractor shall ensure that water, or a dust palliative and a dispensing subcontractor, if needed, is available for project use. It is the responsibility of the Contractor to develop and adhere to appropriate safety measures pertaining to the palliative use. This also includes ensuring the dispensing subcontractor develops and adheres to the appropriate safety measures, if a dispensing subcontractor is used. Water used for dust suppression shall not be applied at such a rate or in a location that it will generate runoff from the site.

D. In the event that additional temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the Work as scheduled or as ordered by the Engineer, such work shall be performed by the Contractor at its own expense.

E. Contractor shall remove all TESC facilities, install permanent site surfacing improvements and permanent BMPs with minimal disturbance, and shall clean stormwater facilities prior to Work completion.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes the requirements to provide product data under the applicable specification section.

1.02 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

PART 2 - PRODUCTS

2.01 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.

2.02 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

PART 3 - EXECUTION

3.01 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.02 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Prevent contact with material that may cause corrosion, discoloration, or staining.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes information for progress and final cleaning and restoration of damaged work prior to final inspection.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.01 PROGRESS CLEAN-UP

- A. The Contractor shall clean the project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Containerize unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials for the type of material to be stored.
 - 2. Coordinate progress cleaning for joint use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free from waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 01 74 19.
- F. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.02 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

3.03 REPAIR OF WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surface, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 1. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.

END OF SECTION

PART 1 GENERAL**1.01 SUMMARY**

- A. This section includes construction waste management requirements.

1.02 DEFINITIONS

- A. Co-mingled or Off-site Separation: Collecting all material types into a single bin or mixed collection system and separating the waste materials into recyclable material types at an off-site facility.
- B. Construction, Demolition and Land-Clearing (CDL) Waste: Includes all nonhazardous solid wastes resulting from construction, remodeling, alterations, repair, demolition, and land clearing. Includes material that is recycled, reused, salvaged or disposed as garbage. This also includes uncontaminated soils that are designated as geotechnically unsuitable or excess excavation.
- C. Hazardous/Dangerous Waste: As defined by Chapter 70.105.010 Revised Code of Washington and 40 Code of Federal Register 261 and by Washington Administrative Code 173-303.
- D. Proper Disposal: As defined by the jurisdiction receiving the waste.
- E. Recyclable Materials: Products and materials that can be recovered and remanufactured into new products.
- F. Recycling: The process of sorting, cleaning, treating and reconstituting materials for the purpose of using the material in the manufacture of a new product. Can be conducted on-site (as in the grinding of concrete).
- G. Recycling Facility: An operation that is permitted to accept materials for the purpose of processing the materials into an altered form for the manufacture of a new product.
- H. Salvage for Reuse: Existing usable product or material that can be saved and reused in some manner on the project site or other projects off-site.
- I. Salvage for Resale: Existing usable product or material that can be saved and removed intact (as is) from the project site to another site for resale to others without remanufacturing.
- J. Source-Separated Materials: Materials that are sorted at the site into separate containers for the purpose of reuse or recycling.
- K. Sources Separation: Sorting the recovered materials into specific material types with no, or a minimum amount of, contamination on site.
- L. Time-Based Separation: Collecting waste during each phase of construction or deconstruction that results in primarily one major type of recovered material. The material is removed before it becomes mixed with the material from the next phase of construction.
- M. Garbage: Product or material typically considered to be trash or debris that is unable to be salvaged for resale, salvaged and reused, returned, or recycled.

1.03 SUBMITTALS

- A. Not Used

1.04 PERFORMANCE GOALS

- A. General: Divert CDL waste to the maximum extent practicable from the landfill by one or a combination of the following activities:

1. Salvage
2. Reuse
3. Source separated CDL recycling
4. Co-mingled CDL recycling

B. CDL waste materials that can be salvaged, resold, reused or recycled, include, but are not limited to the following:

1. Clean dimensional wood, pallet wood, plywood, OSB, and particleboard
2. Asphalt
3. Concrete and concrete masonry units
4. Ferrous and non-ferrous metals
5. Field office waste paper, aluminum cans, glass, plastic, and cardboard

C. Hazardous/Dangerous Wastes, contaminated soils and other hazardous materials such as paints, solvents, adhesives, batteries, and fluorescent light bulbs and ballasts shall be disposed of at applicable permitted facilities.

1.05 QUALITY ASSURANCE

- A. Regulatory Requirements: The Contractor shall maintain compliance with all applicable Federal, State, or Local laws that apply to Construction Waste Management and material salvage, reuse, recycling and disposal.
- B. Disposal Sites, Recyclers and Waste Materials Processors: All facilities utilized for management of any materials covered under this specification must maintain all necessary permits as required by federal, state and local jurisdictions.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 SOURCE-SEPARATED CDL RECYCLING

- A. Provide individual containers for separate types of CDL waste to be recycled, clearly labeled with a list of acceptable and unacceptable materials.

3.02 CO-MINGLED CDL RECYCLING

- A. Provide containers for co-mingled CDL waste to be recycled, clearly labeled with a list of acceptable and unacceptable materials.

3.03 LANDFILL

- A. Provide containers for CDL waste that is to be disposed of in a landfill clearly labeled as such.

3.04 REMOVAL OF CDL WASTE FROM PROJECT SITE

- A. Transport CDL waste off Port's property and legally dispose of them.
END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures
 - 2. Final completion procedures
 - 3. Warranties
 - 4. As-Built Drawings

1.02 ACTION SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

1.03 PROJECT SUBMITTALS

- A. Submittal of Project Warranties
- B. Record Drawings
 - 1. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous recordkeeping requirements and submittals in connection with various construction activities.

1.04 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request:
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Port unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in individual Sections, including specific warranties, operation and maintenance manuals, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 3. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by the Contract Document or Engineer. Label with manufacturer's name and model number where applicable.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request:
 - 1. Complete final cleaning requirements
- D. Submit a written request for inspection to determine Substantial Completion a minimum of 5 days prior to the date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Notice of Substantial Completion after inspection or will

notify Contractor of items, either on the Contractor's list or additional items identified by the Engineer, that must be completed or corrected before notice will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.05 PUNCH LIST (LIST OF INCOMPLETE ITEMS)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of Construction.
 1. Organize list of spaces in sequential order.
 2. Organize items applying to each space by major elements.

1.06 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete and submit the following:
 1. Submittal of all remaining items, including as-built documents, final completion construction photographic documentation, damage or settlement surveys, surveys, and similar final record information and all other submittals defined in the Contract Documents.
 2. List of Incomplete Items: Submit copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (Punch List). Copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 5 days prior to date the work will be complete and ready for final inspection and tests. On receipt of request, the Engineer will either proceed with inspection or notify contractor of unfulfilled requirements.
 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- C. Execution of all Change Orders.

1.07 FINAL ACCEPTANCE PROCEDURES

- A. Submittals Prior to Final Acceptance:
 1. Receipt and approval of application for final payment; due within seven (7) days of receipt of Final Completion by the Engineer;
 2. Contractor's signed waiver and release of claims on the Engineer provided form;
 3. Contractor's submittal of list of all suppliers and subcontractors and the total amounts paid to each on the Engineer provided form; and
 4. Contractor's submittal of a list of all subcontractors and suppliers requiring Affidavits of Wages paid on the Contract and certify that each of companies will submit an approved Affidavit of Wages paid to the Port within 30 days.
- B. The Engineer will issue the Final Acceptance Memo upon receipt of the required submittals.

PART 2 - PRODUCTS

2.01 CONTRACTOR'S WARRANTY

- A. The Contractor warrants the labor, materials and equipment delivered under the contract to be free from defects in design, material, or workmanship, and against damage caused prior to final inspection. Unless otherwise specified, this warranty extends for a period of one (1) year from the date of Substantial Completion.
 - 1. Submit Warranties to the Engineer as a submittal, as described in 01 33 00 – Submittal Procedures.
- B. In the event of equipment failure, during such time or in such a location that immediate repairs are mandatory, the Contractor shall respond promptly (within 48 hours), irrespective of day of the week. If the Contractor is not available, the Port will affect repairs. The Contractor shall then reimburse the Port for parts and labor necessary to correct deficiencies as defined within the warranty clause and time.

2.02 AS-BUILT DRAWINGS

- A. Project As-Built Drawings: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
- B. Project As-Built Drawings shall be compiled by the Contractor and submitted to the Engineer for translation to the Record Drawings on a monthly basis.
 - 1. The Project As-Built Drawings will be submitted on paper full-sized (ANSI D) copy.
 - 2. Drawings shall be kept current and shall be done at the time the material and equipment is installed. Annotations to the record documents shall be made with an erasable colored pencil conforming to the following color code:
 - a. Additions – Red
 - b. Deletions – Green
 - c. Comments – Blue
 - d. Dimensions – Graphite
 - 3. Project As-Built Drawings must be complete and accepted by the Engineer before Final Completion is issued.
 - 4. As-Built Drawings shall be in accordance with horizontal and vertical control as shown on the drawings.

PART 3 – EXECUTION

3.01 MAINTENANCE OF AS-BUILT DRAWINGS

- A. The Contractor shall maintain at the Project site, in good order for ready reference by the Engineer, one complete copy of the Contract Documents, including Addenda, Change Orders, other documents issued by the Port, a current Progress Schedule, and approved Submittals. The Contractor shall also generate and keep on site all documents and reports required by applicable permits.
- B. The Contractor's As-Built Drawings shall be updated to record all changes made during construction. The location of all existing or new underground piping, valves and utilities, and obstructions located during the Work shall be appropriately marked until the Contractor incorporates the actual field dimensions and coordinates into the as-built drawings. The as-built

drawings shall be updated at least weekly and before elements of the Work are covered or hidden from view. After the completion of the Work, the as-built drawings shall be provided to the Port.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Fabricate metal fabrications from steel products, unless noted otherwise on the Drawings. This Section describes the requirements for furnishing materials, labor, and equipment for fabricating and/or repairing, galvanizing, and erecting metal fabrications, in accordance with this Section and other contract documents.

1.02 REFERENCE STANDARDS

A. Publications from the following organizations form a part of this Section to the extent indicated by the references thereto. These publications are referred to by basic designation only in this Section and some title references have been abbreviated. Use the most current edition of each publication available at the time of bid unless otherwise indicated. In case of conflict, the more stringent conditions or requirements, as determined by the Port, shall apply.

1. American Institute of Steel Construction (AISC) 360 Specification for Structural Steel for Buildings
2. AISC 303 Code of Standard Practice for Steel Buildings and Bridges
3. American Galvanizers Association (AGA) Quality Assurance Manual
4. American Society for Testing and Materials (ASTM) ASTM A29 Steel Bars, Carbon and Alloy, Hot-Wrought
5. ASTM A123 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
6. ASTM A 143 Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedures for Detecting Embrittlement
7. ASTM A153 Zinc Coating (Hot -Dip) on Iron and Steel Hardware
8. ASTM A 384 Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies
9. ASTM A385 Providing High-Quality Zinc Coatings (Hot-Dip)
10. ASTM A572 High-Strength Low-Alloy Columbium-Vanadium Structural Steel
11. ASTM A780 Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
12. American Welding Society (AWS) D1.1 Structural Welding Code - Steel

1.03 QUALITY ASSURANCE

- A. Qualification of Steel Fabricator
 1. The fabricator shall be experienced in the fabrication and working of metals, including cutting, bending, forming, and finishing.
- B. Qualification of Galvanizer
 1. Follow the requirements of the AGA Quality Assurance Manual.
 2. Test each finished product for thickness, uniformity of the coating, and adhesion in accordance with the applicable ASTM document.

1.04 SUBMITTALS

- A. Submit complete shop drawings indicating shop and erection details, including cuts, copes, connections, holes, fasteners, welds, and modifications for hot-dip galvanizing to control distortion.
- B. Submit sample of galvanizing repair rod to be used, along with rod manufacturer's product data sheets.
- C. Do not begin fabrication until the relevant shop drawings have been reviewed by the Engineer.

1.05 PRODUCT HANDLING

- A. Protection
 - 1. Protect the materials before, during, and after installation and protect the installed work of other trades.
- B. Replacements
 - 1. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer and at no additional cost to the Port.

PART 2 PRODUCTS

2.01 GENERAL

- A. Unless otherwise noted or specified, provide products that are new and free from oxidation or corrosion.

2.02 STRUCTURAL STEEL

- A. Steel Plates
 - 1. Provide materials meeting the requirements of ASTM A 572, Grade 50.

2.03 HEADED STUDS

- A. Provide headed studs to the diameters and lengths indicated.
- B. Conform to ASTM A29, Grades 1010 through 1020.
- C. Welded headed studs using automatically timed welding equipment in accordance with AWS D1.1. Weld to the embedments with end welds prior to galvanizing.

2.04 OTHER MATERIALS

- A. All other materials not specifically described but required for a complete and proper installation, shall be new, free from oxidation or corrosion, and subject to the approval of the Engineer.

PART 3 EXECUTION

3.01 PREPARATORY REVIEW

- A. Prior to all work of this section, inspect the installed work of other trades affecting this work and verify that all such work is complete to the point where this installation may properly commence.

3.02 FABRICATION

- A. Fabricate items in accordance with the approved shop drawings and reference standards.
- B. Insofar as practicable, shop prefabricate all items complete and ready for installation.

- C. Unless otherwise indicated on the Drawings, weld all shop connections. Provide joints that are tightly fitting, securely fastened, square, plumb, straight, and true.
- D. Drill or punch all holes required for the attachment of work of other trades and for bolted connections. Do not burn holes.

3.03 PROTECTIVE COATINGS

A. Galvanizing

- 1. Miscellaneous carbon steel fabrications including fasteners, and except as noted in paragraph "COATING", shall be hot-dip galvanized in conformance with ASTM A123, A143, A153, A384, and A385.
- 2. Galvanize items, after fabrication is complete. During the galvanizing process provide temporary framework and/or other means to control distortion of the fabricated items so the items meet the tolerance requirements for the work and as indicated in the contract documents.
- 3. Restore galvanizing that has been damaged accidentally in accordance with ASTM A 780 Annex A.1. The zinc-based solder repair rod shall be "Zaclon Repair Alloy" or equal approved by the Engineer. The minimum thickness of the coating shall be 4 mils. Follow the written requirements of ASTM A 780 and the repair material manufacturer.

B. COATING

- 1. Coat bollards in accordance with Section 09 96 10 "Coating Repair" of these specification Sections.

3.04 ERECTION

- A. Erect and install all metal fabrications in strict accordance with the design drawings, shop drawings, and reference standards.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. The work includes furnishing all materials, labor, equipment, and accessories for preparing and providing the required coating repairs on the fabrications and items identified on the drawings and in the specifications.

1.02 REFERENCE STANDARDS

- A. Publications from the following organizations form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.
- B. Society for Protective Coatings (SSPC), SSPC Painting Manual, Volume I, 5th Edition, "Good Painting Practice".
- C. SSPC Painting Manual, Volume II, 2021 Edition, "Systems and Specifications".
- D. SSPC, "Procedure for Determining Conformance to Dry Coating Thickness Requirements", SSPC-PA2.
- E. S. National Archives and Records Administration (NARA), Code of Federal Regulations (CFR).

1.03 QUALITY ASSURANCE

- A. All coating preparation and applications shall be by qualified and experienced personnel having demonstrated at least five (5) years of experience in coating applications for marine structures.
- B. Conform to the coating manufacturer's specifications and recommendations for achieving published results with each product, application, and condition. If the coating manufacturer's specifications or recommendations differ from those in this Section or these specifications, report the discrepancy to the Engineer and obtain further direction before proceeding.
- C. The Contractor shall retain and pay for a coating specialist to inspect all phases of steel surface preparations and coating applications. The specialist shall be a Level 1 NACE certified coating inspector to perform the inspections indicated and in addition the field tests required by the coating manufacturer.
- D. The Engineer may inspect coating repairs or touch-ups at its discretion. Provide access to the Engineer for these inspections and at no additional cost to the Port.

1.04 SUBMITTALS

- A. A complete list of products and product descriptions proposed for use as coating systems. Use the same coating manufacturer's products or approved coating manufacturer's products for field repairs and touch-ups unless otherwise approved by Engineer.
- B. Coating manufacturers' instructions and procedures for use in performing field repairs and touch-ups to the coating systems.
- C. Documentation that key personnel of the coating applicator have at least the minimum experience and certifications. Demonstrate consistent experience applying the proposed coating systems under similar conditions. List information by individual and include the following.
 - 1. Position or responsibility
- D. Employer (if other than the contractor)

1. Name of facility owner
2. Mailing address and telephone number of facility owner
3. Name of contact reference in facility owner's organization
4. Location, size, and description of structure
5. Dates work was performed
6. Description of work performed on structure

- E. Samples of coatings and finishes proposed for use if requested.
- F. Schedule of coating operations with dates and items listed.
- G. Measurement reports of dry film thickness on metal surfaces.
- H. Reports for steel surface preparation, coating application inspection, and field testing.
- I. Coating repair recommendations.

1.05 PRODUCT HANDLING

- A. Deliver coating and associated materials in undamaged and unopened containers bearing labels of the coating manufacturer, which indicate the contents and directions for use, storage, and handling. Store materials in a location where the ambient temperature and humidity is not outside the ranges recommended by the coating manufacturer.
- B. Prevent fire. Open containers of inflammable materials only as needed. Keep rubbing cloths, oily rags, etc., in tightly closed metal containers, or remove from the job site daily. Benzene, gasoline, or distillates shall not be stored on the job site.
- C. Do not damage the coating materials before, during, or after installation and prevent damage to the installed work and materials of other trades.
- D. In the event of damage, immediately make all repairs and replacements as directed by the Engineer according to the coating manufacturer's recommendations and procedures at no additional cost to the Port.

1.06 COATING HAZARDS

- A. Specified coatings may have potential health hazards if ingested or improperly handled. The coating manufacturer's written safety precautions shall be followed throughout mixing, application, and curing of the coatings. During all cleaning, cleanup, surface preparation, and coating applications phases, ensure that employees are protected from toxic and hazardous chemical agents which exceed concentrations in 29 CFR 1910.1000. Comply with respiratory protection requirements in 29 CFR 1910.134.

PART 2 – PRODUCTS

2.01 COATING SYSTEMS

- A. Use the products from one coating manufacturer for coating repairs unless otherwise approved by Engineer.
- B. Materials not specifically noted but required for the work, such as thinners, or other materials, shall be products of the approved coating manufacturer or compatible products accepted by the coating manufacturer.
- C. Mix products for coating according to the coating manufacturer's directions. Do not deviate except with written approval of the Engineer.

2.02 SUBSTITUTIONS

- A. Coating manufacturer-specific systems are referenced in this Section. The coating manufacturer's product identification numbers indicate the product type, quality, and performance required for a specific application. Base bids upon the coating manufacturer-specific system referenced herein.
- B. Submit in writing a request to the Engineer for review and approval prior to material procurement. Include substantiating technical data and documentation.
- C. Proposed coating system substitutions will be reviewed and evaluated, subject to the approval of the Engineer, based on equivalency to the coating systems referenced in this herein. Substitute coating system data and documentation that does not demonstrate equivalency will not be approved.
- D. Approved substitutions shall be at no additional cost to the Port.

2.03 COLOR SCHEDULE

- A. Use OSHA safety yellow unless otherwise indicated on the drawings. Tint the primer to provide a visual difference with the top coat. If not indicated, the Engineer will provide the color(s) to be used.

2.04 COATING MATERIAL

- A. Coating manufacturers who have provided acceptable coating systems for past marine projects include the following. This does not imply that products from any coating manufacturer listed below will be acceptable.
 1. CarboLine Protective Coatings (1-206-243-6494)
 2. Gardner Fields Company LLC (1-253-627-4098)
 3. International Marine Coatings of AkzoNobel (1-206-763-8003)
 4. Sherwin Williams Industrial and Marine Coatings (1-360-931-4645)
 5. ThemeC Company (1-206-762-5755)
 6. Wasser High-Tech Coatings (1-253-218-2222)
- B. Coating system and surface preparation for basis of bid is as follows.
 1. Provide power tool cleaning to bare metal of each bollard in accordance with SSPC-SP 11.
 2. Primer: Intergard 345 epoxy by International Marine Coatings of AkzoNobel, applied to a dry film thickness of 5 to 7 mils.
 3. Top coat: Intergard 345 epoxy, applied to a dry film thickness of 5 to 7 mils.

PART 3 – EXECUTION

3.01 GENERAL

- A. Apply coatings in accordance with the coating manufacturer's recommendations for each application and the requirements of this Section. Where there is a discrepancy between the coating manufacturer's requirements for a field applied coating system and the requirements contained in this Section, notify the Engineer prior to proceeding. Adhere to the resulting provisions, directions, and procedures for the following.
 1. Surface preparation

2. Ambient temperature and humidity monitoring
3. Mixing techniques
4. Minimum and maximum thickness per coat to achieve total thickness
5. Minimum time between coats

B. Use clean equipment, brushes, and rollers. Spread materials evenly without runs, drips, sags, laps, brush marks, variations in color, texture, or sheen, and without "holidays".

C. Vary color or sheens between coats and apply all coats to uniform thicknesses. Refinish any work determined defective or damaged, and repair all defective or damaged work at no additional cost to the Port. Leave finished surfaces clean, completely covered, and uniform in appearance.

3.02 APPLICATION

- A. Provide the number of coats as specified herein.
- B. Thickness of coats: Use ample undiluted materials; apply in uniform thickness over entire areas; do not exceed the coating manufacturer's recommended spreading rate per gallon.
- C. Modify the prime coat color as needed to obtain a uniform top coat color.
- D. Solvent clean surfaces to remove contaminants using a biodegradable, water soluble, cleaner in conformance with SSPC-SP1 and compatible with the coating system.
- E. Prepare surfaces to have a chloride content not to exceed 32 micrograms per square inch of chlorides or with one or more readings greater than 5 micrograms of chlorides per square centimeter of surface, at the time the coating is applied. Accomplish removal of chlorides and sulfates by an appropriate manner that includes the application of products that neutralize chlorides and sulfates (such as use of CHLOR RID products, CHLOR RID International, Inc., 800 422-3217, or products recommended by the coating manufacturer).
- F. Clean to bare metal to create a surface profile in accordance with SSPC-SP11 unless an alternate profile is required by the coating manufacturer.

3.03 REPAIRS AND TOUCH-UP COATING

- A. Coating repairs damaged due to field welding or other Contractor activities shall be immediately restored to its original thickness after thorough cleaning and necessary surface preparation according to the written coating manufacturer's recommendations.
- B. Touch-up coating shall be at the Contractor's expense except where field welding is required.

3.04 INSPECTION

- A. Perform measurements of the dry film thickness on all metal surfaces by means of magnetic gages as described in SSPC-PA2.
- B. Provide copies of the measurement reports to the Engineer.
- C. The Engineer or its designee will also perform verification testing/inspection at its own expense. Arrange for these tests/inspections at facilities requiring coating applications and give the Engineer a notice at least 3 days in advance of each coating operation.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. This Section describes the minimum requirements for repair of concrete spalls using specialty repair products as indicated.

1.02 REFERENCE STANDARDS

A. The Section incorporates, by reference, the latest revision of the following documents. They are part of this Section insofar as specified and modified herein. In case of conflict between the requirements of this Section and the listed documents, the requirements of this Section shall prevail.

1. ACI 301 Specifications for Concrete Construction
2. ACI 318 Building Code Requirements for Structural Concrete & Commentary
3. ACI 562 Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures & Commentary
4. ASTM A615/A615M Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
5. ASTM B418 Cast and Wrought Galvanic Zinc Anodes
6. Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
7. Length Change of Hardened Hydraulic-Cement Mortar and Concrete
8. Splitting Tensile Strength of Cylindrical Concrete Specimens
9. Resistance of Concrete to Rapid Freezing and Thawing
10. ASTM C1077 Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
11. ASTM C1202 Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration
12. ASTM C1583/C1583M Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method)
13. ICRI 320.2R Guide for Selecting and Specifying Materials for Repair of Concrete Surfaces

1.03 QUALITY ASSURANCE

A. Conduct a pre-installation meeting a minimum of one week prior to start of repairs. At the meeting present and review the detailed repair procedures including surface preparation, equipment and procedures; material mixing, placing, and curing; schedules; climatic conditions; etc. The High Performance Cementitious Repair Material Manufacturer representative shall demonstrate the approved placement method(s) if requested by the Port. Required attendees are the superintendent(s) and employees performing the repair work, HPC RMM representative, and Port representatives. Meeting may take place remotely.

B. Submit evidence that the superintendent for this project has a minimum of five years of experience preparing surfaces and applying HPC repair materials under similar conditions and methods of placement on other projects and have successfully performed surface preparation, placement, curing, and finishing of HPC repair materials on a minimum of three separate marine structure repair projects within the past five years. Submit similar evidence that personnel performing the work have experience on a minimum of two projects within the past

three years. List by individual and include the following for each project.

1. Name of individual and proposed position for this project
2. Position or responsibility on each previous project
3. Previous employer (if other than the Contractor for this project)
4. Name of each previous facility owner where project was performed
5. Mailing address and telephone number of each facility owner
6. Name of contact reference in previous facility owner's organization
7. Location, size, and description of structures in previous projects
8. Dates that previous work was performed
9. Description of work performed on structures in previous projects

C. Provide records of experience and training of the HPC RMM representative including name, phone number and address; and a statement from the HPC RMM certifying the representative has successfully completed training by the RMM for material storage, mixing, surface preparation, placement, curing, and testing.

D. Submit HPC RMM printed instructions for repair materials, including detailed mixing and placement procedures, minimum and maximum placement temperatures, and curing procedures. Include manufacturer's safety data sheets (MSDS) for materials to be used at the job site.

E. Manufacturer's Corrosion Technician

1. Employ a technical representative from the galvanic anode manufacturer to provide training and technical assistance during the initial installation of the galvanic anodes. The technical representative shall be a NACE Cathodic Protection Technician Level CP2 or higher.
2. Provide records of experience and training, including name, phone number and address; and a statement from the anode manufacturer certifying the representative has successfully completed training in the installation and testing of embedded galvanic protection systems for reinforced concrete structures.
3. Coordinate work with the corrosion technician to allow for site support during project startup and initial anode installation. The corrosion technician shall provide contractor training and support for development of application procedures, verification of electrical continuity, and project documentation.

F. Include the services of a testing laboratory certified in accordance with ASTM C 1077 to perform field tests as stipulated in this Section.

G. Allow the Port the opportunity to inspect each spall repair during and upon completion of each repair. Notify the Port a minimum of 72 hours in advance.

H. Remove and replace completed work deemed deficient by the Port or the HPC RMM with compliant work at no additional cost to the Port.

1.04 SUBMITTALS

A. Submit the following items to the Port for review and approval prior to proceeding with the work unless otherwise indicated herein. Include signatures of the personnel overseeing the work on all submittals. Include signature of the high performance cementitious (HPC) repair material manufacturer's (RMM) representative on written procedures for surface preparation, HPC repair

material placement, and HPC repair material curing

1. Data sheets, letters, written plans, schedules, and procedures prior to start of work.
2. Technical data sheets for the repair materials used, with the HPC RMM's written instructions for use of the materials.
3. Letter identifying the name, address, telephone number, and e-mail address of the HPC RMM representative.
4. Letter from the HPC RMM indicating the HPC RMM representative has been directly involved in evaluation and placement of HPC repair materials on not less than five marine structures within the last five years and is not an employee of the Contractor.
5. Letter certifying that the HPC RMM representatives have reviewed procedures for surface preparation, placement, and curing of the HPC repair materials.
6. Letter identifying the name, address, telephone number, and e-mail address of any personnel performing the work.
7. Schedule for the field placement of the HPC repair materials.
8. Written procedures for surface preparation of areas to receive the HPC repair materials.
9. Written procedures for containment and disposal of debris generated during the course of the work. Include procedures that define how permit and regulatory requirements will be met.
10. Written procedures for placement of the HPC repair materials into the forms by the trowel (hand-applied) method, form and pour method, and form and pump method, including formwork and venting to remove air.
11. Written procedures for curing the HPC repair materials including minimum cure times, minimum and maximum temperatures, and minimum time for formwork to remain in place.
12. Letter confirming that piles, deck members, and related structural elements will not be structurally overloaded or otherwise adversely impacted by the Contractor's means and methods.
13. Drawings of forms, falsework, and shoring required for the Contractor's means and methods.
14. Inspection reports for installation including test results if performed.

1.05 PRODUCT HANDLING

- A. Deliver materials to the site in unopened containers clearly labeled as follows:
 1. Name of manufacturer
 2. Product name or number designation
 3. Designation of component in container and component mix ratio
 4. Date of manufacture and lot number
 5. Hazardous material rating and handling precautions
- B. Ship, store, and handle HPC repair materials in accordance with the HPC RMM recommendations. Maintain temperature in storage spaces in accordance with those recommendations. Inspect materials for damage or degradation prior to use and properly dispose of non-compliant materials.

- C. Mix HPC repair materials and other materials only in such quantities as are required for immediate use and use before initial set takes place. Do not use HPC repair material which has developed initial set. Do not remix or temper HPC repair material which has partially hardened.
- D. HPC repair materials may have potential health hazards if improperly handled. Follow the HPC RMM written safety precautions throughout mixing, placement, and curing of the materials. During cleaning, cleanup, surface preparation, and placement phases, take steps to protect employees from toxic and hazardous chemical agents. The existing debris released during power tool cleaning may cause adverse health reactions.
- E. Ship, store, and handle anodes in accordance with the anode manufacturer's recommendations.

1.06 MANUFACTURERS WARRANTY

- A. Provide a warranty with a notarized signature from a corporate officer of the anode manufacturer.
- B. As a minimum, include the following.
 - 1. The published guidelines for anode size and spacing are based on a minimum 15 year anode service life.
 - 2. The galvanic anodes will remain electrochemically active and produce galvanic current in relation to the installed environment for a minimum of 5 years from the date of anode installation.
 - 3. The anode unit, including all components, does not include intentionally added substances that may cause corrosion to reinforcing steel over the life of the structure.
 - 4. Documentation that galvanic anodes meet the requirements of specifications, procedures, and this Section.

PART 2 PRODUCTS

2.01 HPC REPAIR MATERIALS

- A. Use materials from one HPC RMM only for the project. Select HPC repair materials suitable for the methods of placement described in this Section. When used in combination, select materials that are compatible. Use prepackaged HPC repair materials with premeasured, properly proportioned components by the HPC RMM. Select HPC repair materials with the following properties.
 - 1. Minimum pot life at 75 degrees F = 15 minutes
 - 2. Minimum bond strength per ASTM C1583/C1583M, at 28 days = 200 psi
 - 3. Minimum compressive strength per ASTM C109/C109M, modified for cementitious materials = 2,000 psi at 1 day and 4,500 psi at 28 days .
 - 4. Maximum drying shrinkage at 28 days per ASTM C157/C157M, modified per ICRI 320.2R = 0.09.
 - 5. Minimum splitting tensile strength per ASTM C496/C496M at 28 days = 650 psi
 - 6. Rapid freeze/thaw durability per ASTM C666, minimum relative durability factor at 300 cycles = 90.
 - 7. Maximum rapid chloride permeability per ASTM C1202 = 1000 coulombs at 56 days.
 - 8. Does not produce a vapor barrier.

9. Has an electrical conductivity that is compatible with the embedded galvanic anodes. Do not use non-conductive repair materials such as epoxy, urethane, or magnesium phosphate. Do not use materials such as epoxy bonding agents unless approved by the Engineer.

2.02 HPC REPAIR MATERIAL MANUFACTURERS AND PRODUCTS

- A. Provide HPC repair materials from HPC RMM as approved by the Port:
 1. Hand-troweled
 - a. BASF Emaco S88 CI
 - b. SikaTop 123 plus
 - c. Or pre-bid approved equal. Approval of alternate systems may be granted subject to the ability of the equivalent systems to meet or exceed the minimum characteristics of the identified system and products with respect to case history, service life, serviceability, corrosion resistance, environmental toxicity, environmental resistance, warranty, and other criteria necessary to demonstrate a quality and equivalent product. Provide documentation required for review by the Port.
 - B. Form and pump method or form and pour method
 - a. BASF Emaco S66 CI
 - b. Sika Monotop 611
 - c. Or pre-bid approved equal. Approval of alternate systems may be granted subject to the ability of the equivalent systems to meet or exceed the minimum characteristics of the identified system and products with respect to case history, service life, serviceability, corrosion resistance, environmental toxicity, environmental resistance, warranty, and other criteria necessary to demonstrate a quality and equivalent product. Provide documentation required for review by the Port.

2.03 EMBEDDED GALVANIC ANODES

- A. Provide pre-manufactured anodes meeting the following requirements unless otherwise approved by the Engineer.
 1. Nominal dimensions of 4.3 inches long by 2.2 inches wide by 1.2 inches deep.
 2. Containing a minimum of 160 grams of zinc in a solid zinc core in accordance with ASTM B 418 Type II.
 3. Cast around a pair of uncoated, unspliced, non-galvanized steel tie wires. Provide wires allowing direct tying (wrapping around and twisting) to the reinforcing steel to provide a permanent connection between the tie wires and the reinforcing steel.
 4. Alkali-activated and encased in a cementitious shell with a pH of 14 or greater.
 5. Containing no added chloride, bromide, or other constituents that are corrosive to reinforcing steel per ACI 562.
 6. Are compatible with the HPC repair materials.
 7. Zinc-based corrosion inhibitor as recommended by the HPC RMM.
- B. Manufacturer and Products:
 1. Vector Corrosion Technologies Galvashield XP4 Type I Class C.

2. Approved equal meeting the requirements in the paragraph "EMBEDDED GALVANIC ANODES" and the following.
3. Provide documentation of use in a minimum of ten projects of similar size and application.
 - a. Provide third party product evaluation as approved by the Engineer.

2.04 OTHER MATERIALS

- A. Curing Compounds
 1. Provide material recommended by the HPC RMM.
- B. Reinforcement
 1. Reinforcing steel: ASTM A615/A615M, Grade 60, deformed.
 2. Splices: Provide lap splices per ACI 318 requirements, or provide mechanical splices designed to develop 125 percent of the bar capacity.

PART 3 EXECUTION

3.01 GENERAL

- A. Repair damaged concrete elements only in accordance with approved repair plan and in conformance with the selected HPC RMM's requirements.
- B. Prior to beginning any concrete repair with HPC repair material, perform a pre-construction survey of the areas to be repaired. Include verification that the repair areas in this survey match the Drawings. With the Port, jointly estimate the total material quantities for the areas to be repaired and jointly prioritize the areas to be repaired so that any quantity discrepancies are resolved prior to starting any work. Do not begin repairs until after this joint survey and prioritization are completed. The true limits of the defects will be defined during preparation of the repair site. Cracks may be present within the delaminated areas that do not continue into the substrate. Jointly verify repairs with the Port during a post-construction survey. Provide access equipment and materials necessary to perform pre-construction and post-construction surveys for these repairs to the Port.
- C. Implement the SPCC plan and debris collection plan for demolition debris and other materials related to the work.

3.02 PREPARATION

- A. Spalled and Delaminated Concrete
 1. Remove loose, unsound, or delaminated concrete from each spalled or delaminated area by sawcutting the perimeter and then removing concrete using small chipping hammers. Use oil-free air in pneumatic tools. Remove unsound concrete. Remove pile lifting loops, marine growth, algae, dirt, grease, paint, or other deleterious materials from concrete surrounding the repair area.
 2. Inspect the cavity for remaining defective concrete by tapping with a hammer or steel rod and listening for dull or hollow sounds. In areas where tapping does not produce a solid tone, remove additional concrete until tapping produces a solid tone. Make the entire cavity approximately 1-inch deep minimum except at and near the saw cut edges where the cavity depth shall be 3/4 inch deep.
 3. Where reinforcing steel or prestressing strand(s) are exposed, remove concrete around the bar to provide a 1-inch gap between the steel and the remaining concrete unless otherwise indicated on the Drawings. Remove corrosion by mechanical means to a near white metal

condition and in accordance with the HPC RMM recommendations.

4. For pile cap repairs with galvanic anodes verify electrical continuity of all reinforcing steel, including supplemental steel, in accordance with the paragraph titled "GALVANIC ANODE INSTALLATION". A zinc-based corrosion inhibitor may be required by the HPC RMM. Do not coat the reinforcing steel within 1 inch of the anode and do not apply coating to any surface of the anode or the steel tie wires.
5. Sawcut edges of cavity to a depth of 3/4 inch around the area of unsound concrete unless otherwise indicated on the Drawings. Make the sawcut in sound concrete. Do not cut reinforcing steel or prestressing strands. Determine the depth of reinforcing steel in the cavity area prior to sawcutting. Reduce the depth of sawcut locally to avoid cutting reinforcing steel or prestressing strands. Chip concrete at these locations to provide sharp edges. Outline each repair area in a square or rectangular shape with straight edges dressed perpendicular to the member face. Prepare surfaces by mechanical scarification, as recommended by the HPC RMM, to remove loose laitance.
6. When prestressing strands or other longitudinal reinforcement is corroded, remove additional concrete for a minimum of 6 inches beyond active corrosion each side.
7. Replace reinforcing steel damaged during sawing or concrete removal at no additional cost to the Port. Notify the Port immediately if prestressing strands are damaged during sawing or concrete removal. The Port will provide direction on how to proceed. Repairs to address strands damaged during sawing or concrete removal shall be performed at no additional cost to the Port.
8. Limit impact hammer size for concrete removal to 15 pounds and use pointed gads only.
9. Roughen concrete surfaces to a 1/4 inch amplitude.

B. Debris: Remove dust, dirt, and loosely bonded material resulting from cleaning. Collect, manage, and dispose of debris and sandblast grit in accordance with permits and local, state, and federal government regulatory requirements. Do not allow debris, grit, water from surface preparation or other associated work, or other items to fall into the water.

C. Replacement of Deteriorated Reinforcement: Following ACI 301M, replace existing bars or strands with greater than 20 percent section loss (by cross-sectional area). Provide bars, wire ties, supports, and other devices necessary to install and secure reinforcement. For supports use non-corrodible chairs, spacers, or hangers. Do not install reinforcement with rust, scale, oil, grease, clay, or foreign substances that would reduce the bar to repair material or concrete bond. Rusting of reinforcement is a basis of rejection if the effective cross-sectional area or the nominal weight per unit length has been reduced greater than 20 percent in cross-sectional area. Remove loose rust prior to placing steel. Do not tack weld. Any reinforcing bar or prestressing strand found to have a greater than 20 percent cross-sectional area loss shall be brought to the Port's attention.

D. Coat the entire surface of existing and replacement reinforcement and accessories if required by the HPC RMM with a zinc-based corrosion inhibitor except as noted in the paragraph titled "PREPARATION", sub-paragraph 3.02.A.4 for pile cap repairs with galvanic anodes or as otherwise directed by the HPC RMM.

3.03 GALVANIC ANODE INSTALLATION

- A. Install anode units and repair material immediately following preparation and cleaning of the steel reinforcement.
- B. Install anodes at the corners and the midpoints on each side of the pile caps as indicated in the Drawings. Use a maximum spacing of 18 inches unless otherwise approved by the Engineer.

- C. Place the galvanic anodes as close as possible to the patch edge while still providing sufficient clearance between anodes and substrate to allow the repair material to fully encase the anode with a minimum concrete or mortar cover over the anode of 1 inch. If necessary, increase the size of the repair cavity to accommodate the anodes.
- D. Wrap tie wires around the cleaned reinforcing steel at least one full turn in opposite directions and then twist tight to create a secure, permanent electrical connection that allows no anode movement during concrete placement.
- E. Electrical Continuity
 - 1. Confirm electrical connection between anode tie wire and reinforcing steel by measuring DC resistance (ohm Ω) or DC potential (mV) with a multi-meter.
 - 2. Electrical connection is acceptable if the DC resistance measured with the multi-meter is 1 Ω or less or the DC potential is 1 mV or less.
 - 3. Confirm electrical continuity of the exposed reinforcing steel within the repair area. If necessary, establish electrical continuity by tying discontinuous steel to continuous steel using steel tie wire.
 - 4. Electrical continuity between test areas is acceptable if the DC resistance measured with multi-meter is 1 Ω or less or the potential is 1 mV or less.

3.04 TESTING OF SAMPLE PLACEMENTS

- A. Three spalled or delaminated areas representative for the project will be selected by the Port, totaling no less than three square feet of surface area. The Port will create a test procedure plan denoting locations for test areas and describing methods for accomplishing testing and coordinate with the Contractor. Prepare areas to receive the sample repairs in accordance with this Section and the HPC RMM recommendations. The HPC RMM representative shall advise on proper surface preparation, placement, and curing methods, summarized in written recommendations. HPC repair material testing requirements may be waived upon submittal of Contractor's submittal of acceptable test results using the same HPC repair material within the previous 1 year.

3.05 MIXING MATERIALS

- A. Mix batches small enough to allow placement before the HPC repair material begins to take any set. Mix materials in accordance with the HPC RMM recommendations.

3.06 PLACEMENT

- A. General: Place HPC repair material and consolidate using methods prescribed by the HPC RMM. Place HPC repair material on vertical and overhead surfaces using the trowel method, form and pour method, or form and pump method, as approved by the HPC RMM. Level the final surface to match the adjoining surfaces, as described below. Remove excess material from adjacent surfaces before it begins to harden. Do not feather out on to adjacent surfaces.
- B. HPC Repair Material Cover Over Reinforcement: Provide 2-inch clear cover unless otherwise indicated on the Drawings. Where the existing concrete cover was less than aforementioned minimum clear cover, place HPC repair material beyond the original concrete profile to obtain 2-inch clear cover unless otherwise directed by the Port. Transition (reduce) repair thickness at repair locations where the coverage extends beyond the original concrete surface profile so that repair edges become flush with the original concrete profile beyond the repair area.
- C. Do not allow wet or cured HPC repair material to enter the water. Construct forms in a manner to prevent leaching of wet HPC repair material or loss of loose or dry HPC repair material into

the water. Place impervious materials over any exposed concrete not lined with forms that will come in contact with the water. Keep forms and impervious materials in place until the HPC repair materials are cured.

- D. Pre-dampening the Prepared Surfaces: Pre-dampen the entire surface area of each cavity immediately prior to HPC repair material placement. A saturated surface dry condition is required for the entire surface area immediately prior to material placement. Pack the entire cavity with sponges soaked in potable water and packed into the cavity so that sponges are in contact with the entire surface area. Hold in place using watertight formwork for a minimum of 12 hours unless a shorter time period is allowed by the HPC RMM written recommendations. Remove freestanding water in the forms immediately prior to HPC repair material placement.
- E. Trowel (Hand-Applied) Method: Apply HPC repair material in accordance with the HPC RMM recommendations. Use on repair areas with up to two square feet of surface area or in locations where the prepared surface does not extend to a vertical edge. The trowel method may also be allowed in areas where the form and pour method or form and pump method may result in trapped air, if approved by the Port on a case-by-case basis. Pay special attention to consolidation of the material behind reinforcing steel, and to working the material into the concrete substrate at the interface of subsequent lifts to achieve a sound bond. Prepare cavity surfaces using a stiff bristle brush to apply a thin film ("scrub coat") of the HPC repair material unless otherwise directed by the HPC RMM recommendations. Use wood dowels to ram material tightly behind reinforcing steel. Finish the exposed surface to match adjacent surfaces.
- F. Form and Pour Method or Form and Pump Method: Use on repair areas larger than two square feet. Properly secure forms and place material through ports located near the bottom the form, filling the form from the bottom up. Provide additional ports or other means of venting at the top of the form on overhead repairs to provide necessary venting during placement of the HPC repair material.
- G. Timing of HPC Repair Material Placement: When reinforcement is exposed, apply material after completion of surface preparation and in accordance with this Section and the HPC RMM recommendations. Do not exceed 48 hours between time of surface preparation and repair material placement unless approved by the HPC RMM.
- H. Forms: Anchor to surrounding concrete with drilled-in expansion anchors. Remove anchors after form removal and repair holes with a stiff consistency of the HPC repair material. Construct forms so that finish surface will be free of ridges, bulges or other irregularities

3.07 CURING

- A. Cure HPC repair materials in accordance with the HPC RMM recommendations.

3.08 REPAIRS

- A. Repair any voids remaining in repairs after form removal at no additional cost to the Port. Use HPC repair material, prepare void and apply material in accordance with the HPC RMM recommendations.

3.09 FIELD QUALITY CONTROL

Perform the following inspections and testing, unless stated otherwise.

- A. Sampling and Testing of HPC Repair Material:
 1. Obtain and test one sample for each day's production. Collect 12 test cubes for each test sample. Identify samples by designated name, HPC repair material batch number, project contract number, where used, and quantity involved.

2. Perform by an approved laboratory in accordance with ASTM C109/C109M. Test 3 test cubes at 1 day, 3 at 7 days, 3 at 28 days and hold 3 in reserve. If a sample fails to meet the HPC RMM published physical properties after two tests, replace HPC repair materials in the repaired area represented by the samples tested at no additional cost to the Port and retest.
3. Acceptable test results from a previous project by the Contractor withing the previous 1 year using the same HPC repair material may negate the requirements of 3.09A1 and 3.09A2
4. Bond Strength Pull-off Tests of Repair Areas:
 - a. Perform in accordance with ASTM C1583/C1583M at 28 days unless a shorter time period is allowed by the Port. Perform two bond strength tests on the substrate in the repair test described in the paragraph titled "Testing of Sample Placements" in a relatively smooth area after the surface preparation is complete and before HPC repair material is placed. Penetrate substrate 1/2 inch minimum to 1 inch maximum with the cores. If a test core fails to meet the minimum bond strength requirement stated in the paragraph "HPC REPAIR MATERIALS", then perform additional surface preparation and retest before placing the HPC repair material. Perform a minimum of three additional bond strength tests on the substrate at locations selected by the Port during the work. Provide bond strength result data to the Port within 48 hours of each set of tests.
 - b. Perform one bond strength test on HPC repair material for each 3 square feet of repaired area. In addition, for the work, perform no less than three bond strength tests on HPC repair material placed by each method. Each bond strength test result shall be the average of the three samples. Retest locations represented by erratic bond strengths as directed by the Port. Remove HPC repair material not meeting bond strength criteria and provide new material and retest, all at no cost to the Port. Repair cored holes with HPC repair material at no additional cost to the Port. Provide bond strength result data to the Port within 48 hours of each set of tests.
5. Inspection: With the Port, jointly check each repaired area for cracks, spalls, popouts, and loss of bond between repaired area and surrounding concrete. Make equipment and access available for use in performing the checks. Check each repaired area for voids by tapping with a hammer or steel rod and listening for dull or hollow sounds. Immediately repair defects so sound, well-bonded repairs result at no additional cost to the Port, regardless of level of inspection by the Port before, during, or after repair work.
6. HPC RMM Representative: Advise the Contractor on material handling, batching and mixing; surface preparation; curing, inspections, and testing of HPC repair materials; and repair of defective repaired areas.

END OF SECTION

PART 1 - GENERAL**1.01 DESCRIPTION OF WORK**

- A. This Section describes the requirements for repair of cracks in existing precast prestressed concrete piles, as indicated on the Drawings, using a surface-applied epoxy repair material (ERM).

1.02 REFERENCE STANDARDS

- A. Publications from the following organizations form a part of this Section to the extent indicated by the references thereto. These publications are referred to by basic designation only in this Section. Use the most current edition of each publication available at the time of bid unless otherwise indicated. In case of conflict, the more stringent conditions or requirements, as determined by the Port, shall apply.
 - 1. American Concrete Institute (ACI) Specifications, Guides, Procedures, and other publications
 - 2. American Society for Testing Materials (ASTM), Specifications, Test Methods, Practices, Guides, Terminology, Classification Systems, Tables, Nomenclature, and other publications
 - 3. International Concrete Repair Institute (ICRI) Guidelines and other publications

1.03 QUALITY ASSURANCE

- A. Personnel performing the Work shall be certified applicators having a minimum of three years of experience on similar projects in a marine environment. Provide contact information of each applicator (name, address, telephone number, and e-mail address.) Include certification(s) to mix and install the ERM.
- B. Provide at least one person who shall be responsible for this portion of the Work and be present at all times during the execution of this portion of the Work. That person shall also be trained and experienced in directing the work. Provide the following additional information.
- C. Allow the Port the opportunity to inspect each repair location during and upon completion of each repair. Notify the Port a minimum of 72 hours in advance.
- D. Remove and replace or repair completed work deemed deficient by the Owner or repair material manufacturer with compliant work at no additional cost to the Owner.

1.04 SUBMITTALS

Submit the following items to the Port for review and approval unless otherwise indicated herein.

- A. Data sheets, letters, written plans, schedules, and procedures prior to start of work. Include signatures of the personnel overseeing the work on submittals. Include signature of the ERM manufacturer's representative on written procedures for surface and crack interface preparation, ERM placement, and ERM curing and finishing.
- B. Qualifications of responsible person per 1.03B. Provide the following information.
 - 1. Position or responsibility on each previous project
 - 2. Previous employer (if other than the Contractor for this project)
 - 3. Name of each previous facility owner where project was performed
 - 4. E-mail address and telephone number of each facility owner

5. Name of contact reference in previous facility owner's organization
6. Location, size, and description of structures in previous projects
7. Dates that previous work was performed
8. Description of work performed on structure in previous projects

C. Technical data sheets for ERM and salt removal compound including certified testing laboratory documents verifying product compliance through specific tests conducted on samples of the same lot as used in this Work. As a minimum, include the following:

1. Product name
2. Lot identification number
3. Maximum shelf life
 - a. Maximum pot life
4. Temperature range for ERM usage including curing requirements
 - a. Date of manufacture
5. Results of required tests in this Section
 - a. Signature of an authorized agent of the manufacturer

D. Certification that applicators have experience on at least three successful projects in the last three years utilizing similar ERM and techniques to repair marine concrete structures. Include a list of applicators by name; location, date, and owner of the projects; brief description of each project; and telephone number of owner's project engineer or a representative of the owner who is familiar with the work performed by the applicators.

E. Certification that the ERM manufacturer has a minimum ten-year history in producing specific products for application in marine concrete repair work using surface-applied ERM. Include product name or number; purpose accomplished by product on each project; location, date and owner of projects where ERM has been applied; brief description of each project; and telephone number of owner's project engineer or a representative of the owner who is familiar with the application work and products used.

F. Repair Quantity Assessment – Plan for the assessment and measurement of proposed repairs for review and approval prior to beginning the assessment. Submit results of the assessment, with proposed quantities for each type of repair to the Port for review and approval.

G. Crack Repair Procedures – step by step procedures for proper application of the ERM to be used in the Work. As a minimum, include the following:

- a. Cleaning of the cracks both along the pile surface areas where the ERM will be applied and internal flushing of the cracks with fresh water to aid in removal of chlorides and other salt contamination.
- b. Preparation of surfaces to receive the ERM.
- c. Application techniques for ERM.
- d. Special environmental conditions that must be maintained during ERM mixing, tools and their intended use, mixing ratio of epoxy components, mixing apparatus for the ERM, and method of transport of the ERM to crack repair locations.

- e. Signature of an authorized agent of the ERM manufacturer on the procedures certifying the procedures have been reviewed by the ERM manufacturer.
- H. Testing laboratory document certifying that a representative sample of the ERM to be used on this project is in accordance with this Section. Include a copy of test reports.
 - 1. Project operations manual written by the ERM manufacturer, a copy of which shall be kept on site at all times during the project. As a minimum include the following.
 - a. Procedure to confirm proper mixture and combining qualities of ERM components.
 - b. Procedure and timing to confirm proper hardening of the ERM material after installation.

1.05 PRE-CONSTRUCTION SURVEY

- A. The Port has performed a repair design inspection, which forms the basis of the Contract Documents. Prior to undertaking any repair work, perform a pre-construction survey to field verify the quantity and size of repairs.
 - 1. Locate, mark, and measure the size and extent of areas designated to be repaired on the Drawings, and additional major or severe damage identified during this survey.
 - 2. Submit results of this survey, with proposed quantities for each type of repair to the Port for review and approval. The Port will authorize repairs and give the Contractor notice to proceed. The Port may not necessarily authorize all proposed repairs.
 - 3. Remeasure repairs in the field upon completion. Payment shall only be made for authorized repairs executed in accordance with the Contract Documents.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site in unopened containers clearly labeled as follows:
 - 1. Name of manufacturer
 - 2. Product name or number designation
 - 3. Designation of component in container and component mix ratio
 - 4. Date of manufacture and lot number
 - 5. Hazardous material rating and handling precautions
- B. Ship, store, and handle ERM and other materials in accordance with each manufacturer's recommendations. Maintain temperature in storage spaces in accordance with those recommendations. Inspect materials for damage prior to use and properly dispose of non-compliant materials.

PART 2 PRODUCTS

2.01 EPOXY REPAIR MATERIAL

- A. Provide a multi-component ERM from the following list.
 - 1. CarboLine Company; Kop Coat A-788 Splash Zone Mastic
 - 2. Five Star Marine; Splash Zone Compound
 - 3. Denso North America; SeaShield 525 Underwater Epoxy
 - 4. Or pre-bid approved equal. Approval of an alternate system and ERM may be granted subject to the ability of the equivalent system and ERM to meet or exceed the minimum

characteristics of the identified system and ERM with respect to case history, service life, serviceability, corrosion resistance, environmental toxicity, environmental resistance, warranty, and other criteria necessary to demonstrate a quality and equivalent system and ERM. Provide documentation required for review by the Port.

2.02 MISCELLANEOUS MATERIALS

- A. Provide other materials not specifically described but otherwise required for a complete and proper installation of the ERM subject to the approval of the Port.

PART 3 EXECUTION

3.01 GENERAL

- A. Repair cracks to the extent indicate on the Drawings and in accordance with project permits and regulatory requirements. Perform the work in conformance with the selected repair material manufacturer's requirements.
- B. Prior to beginning any repairs, perform a pre-construction survey of the areas to be repaired per Section 1.05 of these Specification. Include verification that the repair areas and quantities in this survey match the Drawings. Bring any discrepancies to the attention of the Port prior to start of work on a production basis.
- C. Provide adequate quantities of materials at the start of the work to accomplish the work.

3.02 PREPARATION

- A. Prior to beginning the Work, inspect the damage to be repaired per Section 1.05 of these Specifications. Verify the conditions in the field and bring any conflicts with the Contract Documents to the attention of the Port prior to performing repairs on the concrete piles in question.
- B. Prepare crack interfaces by high pressure (3000 psi) water blasting of the internal crack interface(s), or other approved method, on each concrete pile to be repaired.
- C. Use a high-pressure (3000 psi) water jet and other means as necessary to clean the concrete pile surfaces at the repair areas, in a manner as required by the ERM manufacturer. Extend cleaning to a width that will provide long-term adhesion of the ERM to the prepared concrete surfaces. As a minimum, remove marine growth, algae, dirt, grease, paint, or other materials deleterious to ERM bonding to the concrete piles. If unsound concrete is encountered, notify the Port Engineer immediately.

3.03 PLACEMENT

- A. Apply ERM in accordance with the "Crack Repair Procedures" subparagraph in "SUBMITTALS" paragraph of this Section.
- B. Clean internal crack interfaces before ERM application. Do not proceed with application until internal crack interfaces are adequately dry as provided in the ERM manufacturer's recommendations.
- C. Begin application from the upper end of the crack unless otherwise directed in the ERM manufacturer's recommendations.
- D. Along each crack provide a smooth repair surface of uniform width on the ERM. Place ERM material to a uniform thickness between 1/4-inch and 3/8-inch and a width of 1-1/2-inches to 2-inches, centered on the crack, unless otherwise directed by the ERM manufacturer. Extend the repair approximately one inch beyond each end of each crack. Feather the edges of the ERM beyond the width each side and beyond the end extensions.

- E. Perform ERM application in one continuous process at each repair location.

3.04 CURING AND FINISHING

- A. Allow components of the repair to cure in accordance with the ERM manufacturer's recommendations prior to finishing activities.
- B. Once cured, finish the ERM surface as recommended by the ERM manufacturer. Grind projections smooth. Apply a sealer to the ERM repair if recommended by the ERM manufacturer.

END OF SECTION

APPENDIX A

PORt OF TACOMA

CONSTRUCTION SWPPP

SHORT FORM

CONSTRUCTION SWPPP SHORT FORM

The threshold for using the Port of Tacoma's (Port) short form is a project that proposes to clear or disturb less than one acre of land. Projects falling within this threshold may use this short form instead of preparing a professionally designed Construction Stormwater Pollution Prevention Plan (SWPPP). If project disturbance quantities exceed this threshold, you must prepare of formal Construction SWPPP as part of your submittal package. If your project is within the threshold and includes—or may affect—a critical area, please contact the Port to determine if the SWPPP short form may be used.

CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN SHORT FORM

Project Name:

Address:

Contact/Owner:

Phone:

Erosion Control Supervisor:

Phone:

Cell:

Pager:

Emergency (After hours) Contact:

Phone:

Permit No.:

Parcel No.:

Required Submittals

A Construction SWPPP consists of both a project narrative and a site plan. The project narrative describes existing conditions on the site, the proposed conditions, and how construction site runoff will be managed until final site stabilization is achieved. Any additional relevant information should be included in the project narrative. All Best Management Practices (BMPs) that will be utilized onsite must be included as part of the project narrative and provided (electronically or hard copy) as part of the submittal package. If additional BMPs beyond those included in the Washington Department of Ecology's (Ecology) Western Washington Stormwater Management Manual (Ecology SWMM) or the City of Tacoma's (City) Stormwater Management Manual (City SWMM) are proposed to be used, a narrative and appropriate details describing the BMP (its function, installation method, and maintenance activities) will be required.

The site plan is a drawing which shows the location of the proposed BMPs to control erosion and sedimentation during and after construction activities.

The City's govMe site (<http://www.govme.org>) may be used to find much of the information needed to complete this form, such as adjacent areas, topography, critical areas, the downstream drainage path, and information concerning onsite features.

PROJECT NARRATIVE

The Construction SWPPP Short Form narrative must be completed as part of the submittal package. Any information described, as part of the narrative, should also be shown on the site plan.

Note: From October 1 through April 30, clearing, grading, and other soil disturbing activities shall only be permitted by special authorization from the Port.

A. Project Description (Check all that apply)

New Structure Building Addition Grading/Excavation
 Paving Utilities Other:

1. Total project area _____ (square feet)
2. Total proposed impervious area _____ (square feet)
3. Total existing impervious area _____ (square feet)
4. Total proposed area to be disturbed _____ (square feet)
5. Total volume of cut/fill _____ (cubic yards)

Additional Project Information:

B. Existing Site Conditions (Check all that apply)

1. Describe the existing vegetation on the site. (Check all that apply)
 Forest Pasture/field grass Pavement Landscaping Brush
 Trees Other:
2. Describe how surface water (stormwater) drainage flows across/from the site. (Check all that apply)
 Sheet Flow Gutter Catch Basin Ditch/Swale Storm Sewer
 Stream Other:
3. Describe any unusual site condition(s) or other features of note.
 Steep Grades Large depression Underground tanks Springs
 Easements Existing structures Existing utilities Other:

C. Adjacent Areas (Check all that apply)

1. Check any/all adjacent areas that may be affected by site disturbance and fully describe below in item 2:
 Streams* Lakes* Wetlands* Steep slopes*
 Residential Areas Roads Ditches, pipes, culverts Other:

** If the site is on or adjacent to a critical area (e.g., waterbody), the Port may require additional information, engineering, and other permits to be submitted with this short form.*

2. Describe how and where surface water enters the site from properties located upstream:

3. Describe the downstream drainage path from the site to the receiving body of water (minimum distance of 0.25 mile [1320 feet]). (E.g., water flows from the site into a curb-line, then to a catch basin at the intersection of X and Y streets. A 10-inch pipe system conveys water another 1000 feet to a wetland.) Include information on the condition of the drainage structures.

D. Soils (Check all that apply)

The intent of this section is to identify when additional soils information may be required for applicants using this short form. There are other site-specific issues that may necessitate a soils investigation or more extensive erosion control practices. The Port will determine these situations on a case-by-case basis as part of their review.

1. Does the project propose infiltration? Infiltration systems require prior Port approval.

Yes No

2. Does the project propose construction on or near steep slopes (15% or greater)?

Yes No

If infiltration is proposed for the site or steep slopes (15% or greater) have been identified, the Port will require soils information as part of project design. The applicant must contact a soil professional or civil engineer that specializes in soil analysis and perform an in-depth soils investigation. If the Yes box is checked for either question, the Port may not permit the use of this short form.

E. Construction Sequencing/Phasing

1. Construction sequence: the standard construction sequence is as follows:
 - Mark clearing/grading limits.
 - Install initial erosion control Best Management Practices (BMPs) (e.g., construction entrance, silt fence, catch basin inserts, etc.).
 - Clear, grade, and fill project site as outlined in the site plan while implementing and maintaining proper temporary erosion and sediment control BMPs simultaneously.
 - Install permanent erosion protection as described in the specifications (e.g., impervious surfaces, landscaping, etc.).
 - Remove temporary erosion control methods as permitted. Do not remove temporary erosion control until permanent erosion protection is fully established.

List any changes from the standard construction sequence outlined above:

2. Construction phasing: if construction is going to occur in separate phases, please describe:

F. Construction Schedule

1. Provide a proposed construction schedule (dates construction starts and ends, and dates for any construction phasing.)

Start Date:

End Date:

Interim Phasing Dates:

Wet Season Construction Activities: Wet season occurs from October 1 to April 30. Please describe construction activities that will occur during this time period.

Note: Additional erosion control methods may be required during periods of increased surface water runoff.

2. Site plan

A site plan, to scale, must be included with this checklist that shows the following items:

- a. Address, Parcel Number, Permit Number, and Street Names
- b. North Arrow
- c. Indicate boundaries of existing vegetation (e.g., tree lines, grassy areas, pasture areas, fields, etc.)
- d. Identify any onsite or adjacent critical areas and associated buffers (e.g., wetlands, steep slopes, streams, etc.).
- e. Identify any FEMA base flood boundaries and Shoreline Management boundaries.
- f. Show existing and proposed contours.
- g. Delineate areas that are to be cleared and/or graded.
- h. Show all cut and fill slopes, indicating top and bottom of slope catch lines.
- i. Show locations where upstream run-on enters the site and locations where runoff leaves the site.
- j. Indicate existing surface water flow direction(s).
- k. Label final grade contour and indicate proposed surface water flow direction and surface water conveyance systems (e.g., pipes, catch basins, ditches, etc.).
- l. Show grades, dimensions, and direction of flow in all (existing and proposed) ditches, swales, culverts, and pipes.
- m. Indicate locations and outlets of any dewatering systems (usually to sediment trap).
- n. Identify and locate all erosion control methods to be used during and after construction.

ONSITE FIELD VERIFICATION OF ACTUAL CONDITIONS IS REQUIRED.

Figure 1. (see page 5 for Site Plan requirements)

GUIDELINES FOR EROSION CONTROL ELEMENTS

This SWPPP must contain the 12 required elements, as required by Ecology. Check off each element as it is addressed in the SWPPP short form and/or on your site plan.

- 1. Mark Clearing Limits
- 2. Establish Construction Access
- 3. Control Flow Rates
- 4. Install Sediment Controls
- 5. Stabilize Soils
- 6. Protect Slopes
- 7. Protect Drain Inlets
- 8. Stabilize Channels and Outlets
- 9. Control Pollutants
- 10. Control Dewatering
- 11. Maintain BMPs
- 12. Manage the Project

The following is a brief description of each of the 12 required elements of a SWPPP. If an element does not apply to the proposed project site, please describe why the element does not apply. Applicable BMPs are listed with each element and in Table 1. Please note that this list is not a comprehensive list of BMPs available for small construction projects, but erosion and sediment control techniques most pertinent to small construction sites are included here. More detailed information on construction BMPs can be found in Ecology's SWMM Volume II and the City's SWMM Volume II (Ecology 2019; City of Tacoma 2016). Please provide hard copies of the BMPs that will be used for the project and include as part of this Construction SWPPP. BMPs that may be used if needed can be noted as being contingent in the event additional erosion control is needed. Describe any additional BMPs that will be utilized onsite and add them to the SWPPP short form.

For phased construction projects, clearly indicate erosion control methods to be used for each phase of construction.

Element #1 – Mark Clearing Limits

All construction projects must clearly mark any clearing limits, sensitive areas and their buffers prior to beginning any land disturbing activities, including clearing and grading. Clearly mark the limits both in the field and on the site plans. Limits shall be marked in such a way that any trees or vegetation that is to remain will not be harmed.

Applicable BMPs include:

- BMP C101: Preserving Natural Vegetation
- BMP C102: Buffer Zones
- BMP C103: High Visibility Plastic or Metal Fence
- BMP C104: Stake and Wire Fence

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #2 – Establish Construction Access

All construction projects subject to vehicular traffic shall provide a means of preventing vehicle “tracking” soil from the site onto streets or neighboring properties. Limit vehicle traffic on- and off-site to one route if possible. All access points shall be stabilized with a rock pad construction entrance or other Port-approved BMP. The applicant should consider placing the entrance in the area for future driveway(s), as it may be possible to use the rock as a driveway base material. The entrance(s) must be inspected weekly, at a minimum, to ensure no excess sediment buildup or missing rock.

Applicable BMPs include:

- BMP C105: Stabilized Construction Entrance
- BMP C106: Wheel Wash
- BMP C107: Construction Road/Parking Area Stabilization

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #3 – Control Flow Rates

Protect properties and waterways downstream of the project site from erosion due to increases in volume, velocity, and peak flow of stormwater runoff from the project site.

Permanent infiltration facilities shall not be used for flow control during construction unless specifically approved by the Environmental Department. Sediment traps can provide flow control for small sites by allowing water to pool and allowing sediment to settle out of the water.

Applicable BMPs include:

- BMP C207: Check Dams
- BMP C240: Sediment Trap

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element 4 – Install Sediment Controls

Surface water runoff from disturbed areas must pass through an appropriate sediment removal device prior to leaving a construction site or discharging into a waterbody. Sediment barriers are typically used to slow stormwater sheet flow and allow the sediment to settle out behind the barrier.

Sediment controls must be installed/constructed prior to site grading.

Applicable BMPs include:

- BMP C208: Triangular Silt Dike
- BMP C232: Gravel Filter Berm
- BMP C233: Silt Fence
- BMP C235: Straw Wattles

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #5 – Stabilize Soils

Stabilize exposed and unworked soils by applying BMPs that protect the soils from raindrop impact, flowing water, and wind.

From October 1 through April 30, no soils shall remain exposed or unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed or unworked for more than 7 days. This applies to all soils whether at final grade or not.

Applicable BMPs include:

- BMP C120: Temporary and Permanent Seeding
- BMP C121: Mulching
- BMP C122: Nets and Blankets
- BMP C123: Plastic Covering
- BMP C140: Dust Control

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #6 – Protect Slopes

Protect slopes by diverting water at the top of the slope. Reduce slope velocities by minimizing the continuous length of the slope.

Applicable BMPs include:

- BMP C200: Interceptor Dike and Swale
- BMP C204: Pipe Slope Drains
- BMP C207: Check Dams

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #7 – Protect Drain Inlets

All operable storm drain inlets must be protected during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment. Install catch basin protection on all catch basins within 500 feet downstream of the project.

Applicable BMPs include:

- BMP C220: Storm Drain Inlet Protection

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #8 – Stabilize Channels and Outlets

Stabilize all temporary onsite conveyance channels. Provide stabilization to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the conveyance system outlets.

Applicable BMPs include:

- BMP C202: Channel Lining
- BMP C209: Outlet Protection

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #9 – Control Pollutants

Handle and dispose of all pollutants, including demolition debris and other solid wastes in a manner that does not cause stormwater contamination. Provide cover and containment for all chemicals, liquid products (including paint), petroleum products, and other materials. Handle all concrete and concrete waste appropriately.

Applicable BMPs include:

- BMP C150: Materials on Hand
- BMP C151: Concrete Handling
- BMP C152: Sawcutting and Surface Pollution Prevention
- BMP C153: Material Delivery, Storage and Containment

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #10 – Control Dewatering

Clean, non-turbid dewatering water, such as groundwater, can be discharged to the stormwater system provided the dewatering flow does not cause erosion or flooding of receiving waters. All other dewatering water shall be pumped to a settling container and taken offsite or discharged to the City sewer system. All discharges to the City sewer system require City approval, which may include a Special Approved Discharge (SAD) permit.

Applicable BMPs include:

- BMP C150: Materials on Hand

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #11 – Maintain BMPs

Maintain and repair temporary erosion and sediment control BMPs as needed. Inspect all BMPs at least weekly and after every storm event.

Remove all temporary erosion and sediment control BMPs within 30 days after final site stabilization or if the BMP is no longer needed. Any sediment trapped during construction activities should be removed or stabilized onsite. No sediment shall be discharged into the stormwater drainage system or any natural conveyance system (e.g., streams).

Applicable BMPs include:

- BMP C160: Certified Erosion and Sediment Control Lead

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #12 – Manage the Project

Phase development projects to prevent soil erosion and the transport of sediment from the project site during construction. Coordinate all work prior initial construction with subcontractors and other utilities to ensure no areas are worked prematurely.\

A designated erosion and sediment control person is required for all construction projects. This person is responsible for ensuring that the project's erosion and sediment control BMPs are appropriate for the site and are functioning properly. They are also responsible for updating the

SWPPP as necessary as site conditions warrant. They must be available 24 hours a day to ensure compliance.

Applicable BMPs include:

- BMP C160: Certified Erosion and Sediment Control Lead
- BMP C162: Scheduling
- BMP C180: Small Project Construction Stormwater Pollution Prevention

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Table 1. Applicable BMPs for the 12 Elements of a SWPPP

Element #1 – Mark Clearing Limits		
BMP C101	Preserving Natural Vegetation	
BMP C102	Buffer Zones	
BMP C103	High Visibility Plastic and Wire Fence	
BMP C104	Stake and Wire Fence	
Element #2 – Establish Construction Entrance		
BMP C105	Stabilized Construction Entrance	
BMP C106	Wheel Wash	
BMP C107	Construction Road/Parking Area Stabilization	
Element #3 – Control Flow Rates		
BMP C207	Check Dams	
BMP C240	Sediment Trap	
Element #4 – Install Sediment Controls		
BMP C208	Triangular Silt Trap	
BMP C232	Gravel Filter Berm	
BMP C233	Silt Fence	
BMP C235	Straw Wattles	
Element #5 – Stabilize Soils		
BMP C120	Temporary and Permanent Seeding	
BMP C121	Mulching	
BMP C122	Nets and Blankets	
BMP C123	Plastic Covering	
BMP C140	Dust Control	
Element #6 – Protect Slopes		
BMP C200	Interceptor Dike and Swale	
BMP C204	Pipe Slope Drains	
BMP C207	Check Dams	
Element #7 – Protect Drain Inlets		
BMP C220	Storm Drain Inlet Protection	
Element #8 – Stabilize Channels and Outlets		
BMP C202	Channel Lining	
BMP C209	Outlet Protection	
Element #9 – Control Pollutants		
BMP C150	Materials on Hand	

Element #9 – Control Pollutants, cont.		
BMP C151	Concrete Handling	
BMP C152	Sawcutting and Surfacing Pollution Prevention	
BMP C153	Materials, Delivery, Storage and Containment	
Element #10 – Control Dewatering		
BMP C150	Materials on Hand	
Element #11 – Maintain BMPs		
BMP C160	Certified Erosion and Sediment Control Lead	
Element #12 – Manage the Project		
BMP C160	Certified Erosion and Sediment Control Lead	
BMP C162	Scheduling	
BMP C180	Small Project Construction Stormwater Pollution Prevention	

REFERENCES

City of Tacoma. 2016. Stormwater Management Manual 2016 Edition. Public Works/Environmental Services, Maintenance Division, Tacoma, Washington.

Washington State Department of Ecology (Ecology). 2019. Stormwater Management Manual for Western Washington. Water Quality Program, Lacey, Washington.

APPENDIX B

PHASE 1 CONSTRUCTION

RESTART COVID-19 JOB SITE

REQUIREMENTS

Phase 1 Construction Restart

COVID-19 Job Site Requirements

Phase 1: Low-risk construction work resumes.

Any existing construction projects complying with the points below may resume only those work activities that do not require workers to be closer than six-feet together. If a work activity requires workers to be closer than six-feet, it is not considered low-risk and is not authorized. Adherence to the physical distancing requirement and the health and safety points below will be strictly enforced.

Prior to recommencing work all contractors are required to develop and post at each job site a comprehensive COVID-19 exposure control, mitigation, and recovery plan. The plan must include policies regarding the following control measures: PPE utilization; on-site social distancing; hygiene; sanitation; symptom monitoring; incident reporting; site decontamination procedures; COVID-19 safety training; exposure response procedures; and a post-exposure incident project wide recovery plan. A copy of the plan must be available on each job site during any construction activities and available for inspection by state and local authorities. Failure to meet posting requirements will result in sanctions, including the job being shut down.

All Contractors are required to post at each job site written notice to employees, subcontractors and government officials the Phase 1 work that will be performed at that job site and signed commitment to adhere to the requirements listed in this document.

All contractors have a general obligation to keep a safe and healthy worksite in accordance with state and **federal law**. Failure to follow these requirements will be considered a violation of these duties and be penalized accordingly. Under RCW 49.17.060, “each employer shall furnish to each of their employees a place of employment free from recognized hazards that are causing or likely to cause serious injury or death to his or her employees and shall comply with the rules, regulations, and orders promulgated under this chapter.” The Washington State Department of Labor & Industries’ Division of Occupational Safety and Health (DOSH) is responsible for workplace safety and health, including inspections and enforcement, consultation, technical assistance, training, education and grants.

All contractors are also required to comply with the following COVID-19 worksite-specific safety practices, as outlined in Gov. Jay Inslee’s “Stay Home, Stay Healthy” Proclamation 20-25, and in accordance with the Washington State Department of Labor & Industries General Coronavirus Prevention Under Stay Home-Stay Healthy Order (DOSH Directive 1.70: <https://www.lni.wa.gov/safety-health/safety-rules/enforcement-policies/DD170.pdf>) and the Washington State Department of Health Workplace and Employer Resources & Recommendations at <https://www.doh.wa.gov/Coronavirus/workplace>:

COVID-19 Site Supervisor

1. A site-specific COVID-19 Supervisor shall be designated by the contractor at every job site to monitor the health of employees and enforce the COVID-19 job site safety plan. A designated COVID-19 Supervisor must be present at all times during construction activities, except on single-family residential job sites with 6 or fewer people on the site.

COVID-19 Safety Training

2. A Safety Stand-Down/toolbox talk/tailgate training must be conducted on all job sites on the first day of returning to work, and weekly thereafter, to explain the protective measures in place for all workers. Social distancing must be maintained at all gatherings.
3. Attendance will be communicated verbally and the trainer will sign in each attendee.
4. COVID-19 safety requirements shall be visibly posted on each jobsite.

Social Distancing

5. Social distancing of at least 6 feet of separation must be maintained by every person on the worksite at all times.
6. Gatherings of any size must be precluded by taking breaks and lunch in shifts. Any time two or more persons must meet, ensure minimum 6 feet of separation.
7. Identify “choke points” and “high-risk areas” on job sites where workers typically congregate and control them so social distancing is always maintained.
8. Minimize interactions when picking up or delivering equipment or materials, ensure minimum 6-foot separation.
9. To the extent practical allow only one trade/subcontractor at a time on a jobsite and maintain 6-foot separation social distancing for each member of that trade. If more than one trade/subcontractor must be on the job to complete the job then at a minimum all trades and subcontractors must maintain social distancing policies in accordance with this guidance.

Personal Protective Equipment (PPE) – Employer Provided

10. Provide personal protective equipment (PPE) such as gloves, goggles, face shields and face masks as appropriate, or required, for the activity being performed.
11. Masks, in accordance with Washington Department of Health guidelines, or as required by Washington Department of Labor & Industries (L&I) safety rules, must be worn at all times by every employee on the worksite.
12. Eye protection must be worn at all times by every employee while on worksite.
13. Gloves must be worn at all times by every employee while on worksite. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves.
14. If appropriate PPE cannot be provided, the worksite must be shut down.

Sanitation and Cleanliness

15. Soap and running water shall be abundantly provided on all job sites for frequent handwashing. Workers should be encouraged to leave their workstations to wash their hands regularly, before and after going to the bathroom, before and after eating and after coughing, sneezing or blowing their nose.
16. When running water is not available, portable washing stations, with soap, are required, per WAC 296-155-140 2(a) – (f). Alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol can also be used, but are not a replacement for the water requirement.
17. Post, in areas visible to all workers, required hygienic practices, including not to touch face with unwashed hands or with gloves; washing hands often with soap and water for at least 20 seconds; use hand sanitizer with at least 60% alcohol; cleaning and disinfecting frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, machines, shared tools, elevator control buttons, and doorknobs; covering the mouth and nose when coughing or sneezing as well as other hygienic recommendations by the U.S. Centers for Disease Control (CDC).
18. Make disinfectants available to workers throughout the worksite and ensure cleaning supplies are frequently replenished.
19. Frequently clean and disinfect high-touch surfaces on job sites and in offices, such as shared tools, machines, vehicles and other equipment, handrails, doorknobs, and portable toilets. If these areas cannot be cleaned and disinfected frequently, the jobsite shall be shut down until such measures can be achieved and maintained.
20. When the worksite is an occupied home, workers should sanitize work areas upon arrival, throughout the workday and immediately before they leave, and occupants should keep a personal distance of at least 10 feet.
21. If an employee reports feeling sick and goes home, the area where that person worked should be immediately disinfected.

Employee Health/Symptoms

22. Create policies which encourage workers to stay home or leave the worksite when feeling sick or when they have been in close contact with a confirmed positive case. If they develop symptoms of acute respiratory illness, they must seek medical attention and inform their employer.
23. Have employees inform their supervisors if they have a sick family member at home with COVID-19. If an employee has a family member sick with COVID-19, that employee must follow the isolation/quarantine requirements as established by the State Department of Health.
24. Screen all workers at the beginning of their shift by taking their temperature and asking them if they have a fever, cough, shortness of breath, fatigue, muscle aches, or new loss of taste or smell. Thermometers used shall be 'no touch' or 'no contact' to the greatest extent possible. If a 'no touch' or 'no contact' thermometer is not available, the thermometer must be properly sanitized between each use. Any worker with a temperature of 100.4°F or higher is considered to have a fever and must be sent home.

25. Instruct workers to report to their supervisor if they develop symptoms of COVID-19 (e.g., fever, cough, shortness of breath, fatigue, muscle aches, or new loss of taste or smell). If symptoms develop during a shift, the worker should be immediately sent home. If symptoms develop while the worker is not working, the worker should not return to work until they have been evaluated by a healthcare provider.
26. Failure of employees to comply will result in employees being sent home during the emergency actions.
27. Employees who do not believe it is safe to work shall be allowed to remove themselves from the worksite and employers must follow the expanded family and medical leave requirements included in the Families First Coronavirus Response Act or allow the worker to use unemployment benefits, paid time off, or any other available form of paid leave available to the worker at the workers discretion.
28. Any worker coming to work on a construction site in Washington from any state that is not contiguous to Washington must self-quarantine for 14 days to become eligible to work on a job site in Washington.
29. If an employee is confirmed to have COVID-19 infection, employers should inform fellow employees of their possible exposure to COVID-19 in the workplace but maintain confidentiality as required by the Americans with Disabilities Act (ADA). The employer should instruct fellow employees about how to proceed based on the CDC [Public Health Recommendations for Community-Related Exposure](#).

Job Site Visitors

30. A daily attendance log of all workers and visitors must be kept and retained for at least four weeks. The log must include the name, phone number, and email address of all workers and visitors.

No jobsite may operate until the contractor can meet and maintain all requirements, including providing materials, schedules and equipment required to comply.

These Phase 1 COVID-19 job site safety practices are required as long as the “Stay Home, Stay Healthy” Gubernatorial Proclamation 20-25 is in effect or if adopted as rules by a federal, state or local regulatory agency. **All items minus numbers 28 and 30 are subject to enforcement action under L&I’s Division of Occupational Safety and Health (DOSH).**

Workplace safety and health complaints may be submitted to the L&I Call Center: (1-800-423-7233) or via e-mail to adag235@lni.wa.gov. **General questions about how to comply with construction safety practices** can be submitted to the state’s Business Response Center at <https://app.smartsheet.com/b/form/2562f1caf5814c46a6bf163762263aa5>. **All other violations related to Proclamation 20-25** can be submitted via at: <https://bit.ly/covid-compliance>.

APPENDIX C

PORt OF TACOMA

PROGRAMMATIC PILING

REPAIR

APPENDIX C.1

Section 401 Water Quality

Certification: Water Quality

Certification Order No. 15952

for Corps Public Notice No.

NWS-2011-0089-WRD



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

September 11, 2018

Port of Tacoma
ATTN: Ms. Jennifer Stebbings
PO Box 1837
Tacoma, WA 98401-1837

RE: Water Quality Certification Order No. **15952** for Corps Public Notice No. **NWS-2011-0089-WRD** for the Programmatic Piling Repair Project, within the Blair, Hylebos, and Sitzcum Waterways, and Commencement Bay, Tacoma, Pierce County, Washington

Dear Ms. Stebbings:

On November 15, 2017, the Port of Tacoma submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act for the proposed Programmatic Piling Repair Project.

On behalf of the State of Washington, Ecology certifies that the work described in the JARPA and the public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and applicable state laws. This certification is subject to the conditions contained in the enclosed Order.

If you have any questions, please contact Lori Kingsbury at (360) 407-6926. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,

A handwritten signature in black ink, appearing to read "Perry J Lund".

Perry J Lund, Section Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

Enclosure

By Certified Mail 9489 0090 0027 6019 1528 66

cc: Frank Nichols, Corps of Engineers
Lisa Anderson, Puyallup Tribe of Indians
Char Naylor, Puyallup Tribe of Indians
Matthew Curtis, WDFW



e-cc: ecyrefedpermits@ecy.wa.gov
Justine Barton, EPA
Kristine Koch, EPA
Loree' Randall, Ecology
Laura Inouye, Ecology
Zach Meyer, Ecology
Marv Coleman, Ecology
Lori Kingsbury, Ecology

IN THE MATTER OF GRANTING A) ORDER No. 15952
WATER QUALITY) Corps Reference No. NWS- 2011-0089-WRD
CERTIFICATION TO) Programmatic Piling Repair Project within,
Port of Tacoma) Blair, Hylebos, and Sitzcum Waterways, and
in accordance with 33 U.S.C. 1341) Commencement Bay, Tacoma, Pierce County,
(FWPCA § 401), RCW 90.48.120, RCW) Washington
90.48.260 and Chapter 173-201A WAC)
)
)

TO: Port of Tacoma
ATTN: Ms. Jennifer Stebbings
PO Box 1837
Tacoma, WA 98401-1837

On November 15, 2017, the Port of Tacoma submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification (WQC). The U.S. Army Corps of Engineers issued a joint public notice for the project pursuant to the provisions Chapter 173-225 WAC on March 15, 2018.

The Port of Tacoma proposes to conduct maintenance activities at 15 wharf/pier structures over a five year period. Work activities include the replacement of up to 200 piles per year (broken fender piles, dolphin piles, and/or support piling) and the associated pile caps, chocks, whalers, and rub strips. The structures are located at West Sitzcum Terminal, Terminal 7 (A and B), East Sitzcum Terminal, Husky Terminal, Washington United Terminal, Blair Dock, PCT, East Blair 1, Parcel 115, Tote, Trident, Parcel 99, Parcel 105, and Parcel 86 within the Port of Tacoma.

Concrete piles will be replaced with concrete piles and will be no greater than 24-inches in diameter. Treated-timber piles will be replaced with ACZA-treated timber piles no greater than 18-inches in diameter.

Existing damaged piles will be removed with a vibratory hammer or by pulling with a choke chain. Piles that break during extraction may be cut off at or below the mudline and the location would be capped with clean sand. Up to 120 cubic yards of clean sand may be placed per year. Up to 1,000 piles could be placed and up to 750 cubic yards of sand could be placed over the five year period.

The purpose of the proposed project is to maintain the function and structural integrity of the existing wharf/pier structures. This project does not include placement of additional structures or expansion of footprints.

The project is located on Port of Tacoma properties within the Hylebos, Blair, and Sitzcum Waterways, and Commencement Bay, Tacoma, Pierce County, Washington; Northwest Quarter of Sections 34, Township 21 North, Range 3 East; WRIA 10, Puyallup-White Watershed.

AUTHORITIES:

In exercising authority under 33 U.S.C. §1341, RCW 43.21C.060, and RCW 90.48.260, Ecology has examined this application pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. Sections 1311, 1312, 1313, 1316, and 1317 (FWPCA Sections 301, 302, 303, 306, and 307).
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. 1313 and by Chapter 90.48 RCW, and with other applicable state laws; and,
3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

WATER QUALITY CERTIFICATION CONDITIONS:

Through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as proposed and conditioned will be conducted in a manner that will comply with applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. § 1341, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

Certification of this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this certification shall absolve the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments occurring as a result of project construction or operations.

A. General Conditions:

1. For purposes of this Order, the term "Applicant" shall mean the Port of Tacoma and its agents, assignees and contractors.
2. All submittals required by this Order shall be sent to Ecology's Southwest Regional Office, Attn: Federal Permit Manager, SEA Program, PO Box 47775, Olympia, WA 98504-7775 or via e-mail to fednotification@ecy.wa.gov with a copy to Lori.kingsbury@ecy.wa.gov. All submittals shall reference Order No. 15952 and Corps No. NWS-2011-0089-WRD and include the Applicant name, project name, project contact, and the contact's phone number.

3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on November 15, 2017.
4. The Applicant shall obtain Ecology review and approval before undertaking any changes to the proposed project that may affect water quality and are not authorized by this Order.
5. Within 30 days of receipt of updated information, Ecology will determine if the revised project requires a new Water Quality Certification and Public Notice or if a modification to this Order is required.
6. This Order shall be rescinded if the U.S. Army Corps of Engineers does not issue a Section 404 permit.
7. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
8. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
9. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (e.g., violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.
10. The Applicant shall ensure that all appropriate project engineers and contractors at the project site have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each project engineer and contractor that they have read and understand the conditions of this Order and the above-referenced permit, plans, documents, and approvals. These statements shall be provided to Ecology before construction begins at the project site.
11. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.
12. Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

B. Water Quality Conditions:

1. This Order does not authorize temporary turbidity exceedances of water quality standards beyond the limits established in WAC 173-201A-210.
 - a. The area of mixing established for turbidity in marine waters is a radius of 150 feet from the in-water activity.
 - b. Turbidity must not exceed 10 NTU over background when the background is 50 NTU or less; or a 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
 - c. pH shall be within the range of 6.5 to 9.0, with a human-caused variation within the above range of less than 0.5 units.
2. The Applicant shall conduct water quality monitoring as described in the approved *Final Water Quality Monitoring and Protection Plan (WQMPP), Port of Tacoma Programmatic Pile Repair and Replacement Project*, prepared by Jenn Stebbings, Port of Tacoma, dated September 5, 2018.
3. Ecology must approve, in writing, any changes or additions to the WQMPP prior to implementation of the changes or additions.
4. Results of the water quality monitoring shall be documented in a report and submitted to Ecology's Federal Permit Manager weekly during the in-water work per condition A.2 of this Order.
5. If water quality exceedances are observed outside the point of compliance, work shall cease immediately and the Applicant or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, correct the problem and prevent further water quality turbidity exceedances.
6. Notification of exceedances shall be made to Ecology **within 24 hours of occurrence**. Notification shall be made with reference to Order No. 15952 Attn: Federal Permit Manager by telephone at (360) 407-6926 or by e-mail to fednotification@ecy.wa.gov with a copy to Lori.kingsbury@ecy.wa.gov. The Applicant shall, at a minimum, provide Ecology with the following information:
 - a. A description of the nature, extent, and cause of the exceedance.
 - b. The period of non-compliance, including exact dates, duration, and times and/or anticipated time when the project will return to compliance.
 - c. The steps taken, or to be taken to reduce, eliminate, and prevent a recurrence of the non-compliance.
 - d. In addition, within five (5) days after the notification of the exceedance, the Applicant shall submit a written report to Ecology (per conditions A.2.) that describes the nature

of the exceedance(s), corrective action taken and/or planned, steps taken to prevent a recurrence, photographs, and any other pertinent information.

7. Mitigation and/or additional monitoring may be required if the monitoring results indicate that the water quality standards have not been met.

C. Timing Requirements:

1. This Order shall remain in effect for a period of five (5) years from the date of issuance. Continuing this project beyond the five-year term of this Order will require the Applicant to submit a request for an extension at least 60 days prior to the expiration of this Order.
2. In-water work window:
 - July 16 to February 14 of any year

D. Notification Requirements:

1. The Applicant shall provide a copy of the final Corps Permit to Ecology's Southwest Regional Office Federal Permit Manager (in accordance with Condition A.2, above) within two weeks of receipt of the permit.
2. Written notification (e-mail is preferred) shall be made to Ecology's Southwest Regional Office Federal Permit Manager in accordance with condition A2, above for the following activities:
 - a. At least ten (10) days prior to the onset of in-water work for each construction season;
 - b. Within ten (10) days after completing in-water work for each construction season;
 - c. Immediately following a violation of the state water quality standards or any condition of this Order;
 - d. The Applicant shall provide an annual report to Ecology by January 31 of the following year that includes the details of the piling repair work conducted in the previous year including location information, photos, details of any problems and how they were resolved, and a list of piling work that is planned for the next calendar year.

E. Project Specific Conditions:

General Construction

1. All work in and near waters of the state shall be done so as to minimize turbidity, erosion, and other water quality impacts. Construction stormwater, sediment, and erosion control Best Management Practices (BMP's) suitable to prevent exceedances of state water quality standards shall be in place at before starting maintenance work and shall be maintained throughout the duration of the maintenance activity.
2. Staging areas will be located a minimum of 50 feet from waters of the state, including wetlands. If a staging area must be located within 50 feet of waters of the state, then the

Applicant shall provide a written explanation (with additional BMPs) and obtain approval from Ecology's Federal Permit Manager before placing the staging area within the setback area.

3. No Stockpiling or staging of materials shall occur within the OHWM of any waterbody.
4. In order to prevent contamination to surface waters, machinery and equipment used during construction shall be serviced, fueled, and maintained on uplands a minimum of 100 feet from waters of the state including wetlands, unless otherwise approved by Ecology.
5. No petroleum products, fresh concrete, lime, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.
6. All equipment that will operate over or within waters of the state shall be free of external petroleum-based products. Accumulation of soils or debris shall be removed from the drive mechanisms and the undercarriage of equipment prior to use. Equipment shall be inspected daily for leaks, accumulation of grease, etc. Any identified problems shall be fixed before operating over or within waters of the state.
7. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working area shall not be discharged into state waters. The Applicant shall establish a separate, contained area for washing down vehicles and equipment that does not have any possibility of draining to surface waters and/or wetlands.
8. All construction debris, concrete waste material, excess sediment, and other solid waste shall be properly managed and disposed of in an upland disposal site approved by the appropriate regulatory authority.
9. The Applicant shall have a boat available on site during in-and over-water work activities to manage booms and retrieve any debris that enters the water.
10. The Applicant shall ensure that fill material (sand) placed for the proposed project does not contain toxic material in toxic amounts.
11. The Applicant shall use tarps or other containment method when cutting, drilling, or removing biofouling over water to prevent sawdust, concrete rubble, and other debris from entering waters of the state.

Work In Potentially Contaminated Areas

12. Work proposed within or adjacent to an existing or previously designated Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site shall be coordinated with the Puyallup Tribe and CERCLA agencies and any recommendations that result from that coordination implemented.

13. Work proposed within or adjacent to an existing or previously designated Model Toxics Control Act (MTCA) site shall be coordinated with Ecology and any recommendations from that coordination followed.
14. If contamination is discovered, it must be reported to Ecology (per Condition A2, above). Contaminated soils or water may require special handling and/or disposal to avoid water pollution during pile repair/replacement activities.

Pile Installation and Removal

15. The Applicant shall consider the best tidal conditions for piling removal that may result in the least amount of disturbance to in place sediment. If piling removal results in exceedance of turbidity at the compliance boundary, reconsider the timing of the removal to a more restricted timeframe. For example. The lowest practical tide condition or around slack water.
16. Vegetable-based hydraulic fluid shall be utilized in pile driving equipment.
17. New piling shall be ACZA-treated timber, or concrete. ACZA-treated timber shall comply with the Western Wood Preservers Institute BMPs.
18. New piling shall be installed using a vibratory hammer and may be proofed with an impact hammer. In some instances use of an impact hammer may be necessary for full installation.
19. If an impact hammer is used for pile installation or proofing, a suitable noise attenuation device (such as a bubble curtain or wood block) shall be used to protect marine life.
20. Rub strips shall be made of ultra-high molecular weight (UHMW) or high-density polyethylene (HDPE) plastic.
21. Hydraulic jetting devices shall **not** be used to place or remove piles or move sediment away from the piling.
22. A containment boom and oil-absorbent sausage booms shall be placed around the perimeter of the work area when removing creosote-treated piles to capture debris and other material. All accumulated debris shall be removed at least daily (and always prior to moving the boom) and disposed of at an approved upland disposal facility.
23. Piling shall be removed using vibratory methods or by pulling with a choke chain.
24. The operator shall “wake up” piling to be removed by vibrating it to break the skin friction bond between piling and sediment. This bond breaking will minimize turbidity in the water column as well as possibly breaking off the piling.
25. The work areas on barge decks or uplands shall include a containment basin for piles and any sediment/slurry associated with the pile removal. The containment basins shall have continuous sidewalls and be constructed in such a fashion to prevent any release of

contaminants or debris into waters of the state. Water/slurry remaining in the containment basins shall not be discharged into waters of the state.

26. Once removed from the substrate, piles shall be moved directly from the water into the containment basin and shall not be shaken, hosed-off, stripped or scraped off, left hanging to drip, or any other action intended to clean or remove adhering material from the pile.
27. If piles break during removal and cannot be extracted by mechanical means, the piling shall be cut off at or below mudline and capped with a nominal 6-inch cover of clean sand.
28. All piles that are cut off and not fully extracted shall have the locations identified with GPS and the coordinates documented in the annual report submitted to Ecology. (Per condition D.2.d. above.)
29. Extracted piles, excess sediment, all construction debris and other solid waste material shall be properly managed and disposed of in an approved upland disposal site.

Concrete Work

30. Spill protection measures shall be in place prior to any concrete delivery over water. All forms for any concrete structures shall be completely sealed off to prevent the possibility of fresh concrete entering waters of the state.
31. Concrete delivery systems shall be inspected daily to prevent any discharges of concrete and/or slurry water into waters of the state.
32. Concrete process water shall not enter waters of the state. Any concrete process/contact water discharged from a confined area with curing concrete shall be routed to upland areas to be treated and disposed of properly with no possible entry to waters of the state.

G. Emergency/Contingency Measures:

1. The Applicant shall develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan for all aspects of this project and shall have adequate and appropriate spill response materials on hand to respond to emergency release of petroleum products or any other material to waters of the state.
2. Any work that is causing distressed, dead, or dying fish; or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant or Operator shall immediately take the following actions:
 - a. Cease operations that are causing the compliance problem.
 - b. Assess the cause of the water quality problem and take appropriate and immediate measures to correct the problem and/or prevent further environmental damage.

- c. In the event of finding distressed, dead, or dying fish, the Applicant or Operator shall collect fish specimens and water samples in the affected area within the first hour of the event. These samples shall be held in refrigeration or on ice until instructed by Ecology on what to do with them. Ecology may require analysis of these samples before allowing the work to resume.
- d. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
- e. Immediately notify Ecology's 24-Hour Spill Response Team at 1-800-645-7911 and within 24 hours of spills or other events to Ecology's Federal Permit Manager at (360) 407-6926 or (360) 407-6300.
- f. Submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps taken to prevent recurrence, results from any samples taken, and any other pertinent information.

3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
4. If at any time during work the Applicant finds buried chemical containers, such as drums, or any unusual conditions indicating disposal of chemicals, the proponent shall immediately notify Ecology using the above phone numbers.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Order No. 15952
Corps No. NWS-2011-0089-WRD
Port of Tacoma
Programmatic Piling Repair
September 11, 2018
Page 10 of 11

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Rd SW, Suite 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

CONTACT INFORMATION

Please direct all questions about this Order to:

Lori Kingsbury
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775
Lori.kingsbury@ecy.wa.gov

MORE INFORMATION

Pollution Control Hearings Board Website
www.aho.wa.gov/Boards_PCHB.aspx

Chapter 43.21B RCW - Environmental Hearings Office – Pollution Control Hearings Board
<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21B>

Chapter 371-08 WAC – Practice and Procedure
<http://apps.leg.wa.gov/WAC/default.aspx?cite=371-08>

Chapter 90.48 RCW – Water Pollution Control
<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

*Order No. 15952
Corps No. NWS-2011-0089-WRD
Port of Tacoma
Programmatic Piling Repair
September 11, 2018
Page 11 of 11*

Chapter 173.204 WAC – Sediment Management Standards

www.ecy.wa.gov/biblio/wac173204.html

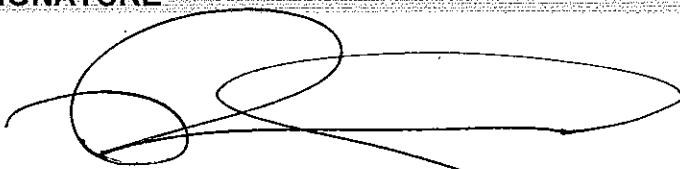
Chapter 173-200 WAC – Water Quality Standards for Ground Waters of the State of Washington

www.ecy.wa.gov/biblio/wac173200.html

Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington

www.ecy.wa.gov/biblio/wac173201A.html

SIGNATURE



Perry J Lund, Section Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

9/11/2018

Date

APPENDIX C.2

Shoreline Substantial

Development Permit

Exemption File No. LU18-0303

- POT Programmatic Pile

Repair Project



City of Tacoma
Planning and Development Services

December 21, 2018

Port of Tacoma
Attn: Jenn Stebbings
P.O. Box 1837
Tacoma, WA 98401

via email:jstebbings@portoftacoma.com

RE: Shoreline Substantial Development Permit Exemption
File No. LU18-0303 – POT Programmatic Pile Repair Project

Dear Ms. Stebbings,

You have requested a Shoreline Substantial Development Permit Exemption to allow for pile repair and replacement at 14 Port-owned locations located within Commencement Bay over a five year period. The request is similar to previous City of Tacoma shoreline exemptions issued for programmatic pile repair and maintenance and the purpose of the project is to maintain the integrity of the existing structures in state comparable to their original condition.

The specific request is for the replacement and repair of damaged pile and associated pile caps, chokes, and whalers as needed. Creosote piling will be replaced with ACZA-treated timber that complies with the Western Wood Preservers Institute BMPs and concrete piling will be replaced with concrete piling. No more than 200 piling will be replaced in a single year. No new structures or expansion of existing structures is proposed. The project includes Several Best Management Practices (BMPs) to reduce impacts that may occur.

The Port of Tacoma has received approval from the U.S. Army corps of Engineers for the Programmatic Piling Repair. The approval includes special conditions to ensure compliance with the Endangered Species Act (ESA); Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and tribal treaty rights. The approval also includes a Letter of Concurrence (LOC) from the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

The proposal was reviewed by the State of Washington Department of Ecology and has been confirmed to comply with the applicable provision of the Clean Water Act. Water quality monitoring will be conducted. The POT has also received approval from the Washington Department of Fish and Wildlife. Copies of the approvals have been provided to the City of Tacoma.

Commencement Bay is a shoreline of the state. State waters and lands extending 200-feet from the Ordinary High Water Mark (OHWM) are regulated under the City of Tacoma's *Shoreline Master Program* (SMP) codified in the Tacoma Municipal Code (TMC) Chapter 13.10. The POT structures included with this proposal are lawfully established structures located in the S-13 Marine Waters of the State zoning district.

The proposed maintenance has been reviewed and determined to be consistent with the City's SMP exemption criteria in TMC 13.10.2.3.3 to prevent a decline, lapse, or cessation from a lawfully established condition. The proposed BMPs as well as conditions required under state

and federal approvals have been reviewed and are comprehensive. Adverse impacts will be temporary and limited during active construction. No permanent adverse impacts are anticipated.

Therefore, the Shoreline Exemption request is **Approved**, subject to the following conditions:

1. The applicant shall follow all proposed installation and construction methods and best management practices for minimizing unintended impacts during the repair and maintenance.
2. Appropriate best management practices will be used to prevent any runoff or deleterious material from entering Commencement Bay.
3. Construction material or debris shall be promptly removed and dispose of in an appropriate upland location.
4. The applicant shall notify the City of Tacoma and pertinent state or federal agencies in the event of an unexpected spill of fuel or other chemical into the waterway.
5. The repair work must conform to state and federal in-water work windows and accompanying conditions.
6. Replacement pilings shall be replaced at a one-to-one ratio. A copy of the USACE compliance form documenting the number and location of replacement pile installed shall be provided to the City annually.
7. This exemption shall be valid for a period not to exceed five years from the date of issuance. Should the Shoreline Master Program be revised prior to the completion of this project, additional review may be required.

Pursuant to WAC 197-11-800, subsection (3) and the City of Tacoma's SEPA Procedures, this proposed action is categorically exempt from the Threshold Determination and Environmental Impact Statement requirements of SEPA.

The applicant is also advised of the following:

- This permit is only applicable to the proposed project as described above and based upon the information submitted by the applicant. Future activities or development within regulated state waters or the 200-foot shoreline jurisdiction may be subject to further review and additional permits or exemptions as required in accordance with TMC 13.10.
- We are issuing this letter of exemption per the provisions of Tacoma's *Shoreline Master Program* and Tacoma Municipal Code (TMC) 13.10 to comply with the requirements of WAC 173-27-050 and WAC 173-27-040. Should you have any further questions or requests please do not hesitate to contact me at 253-591-5482.

Sincerely,



Shannon Brenner
Environmental Specialist

cc via electronic mail:

Washington Department of Ecology, Shorelands & Environmental Assistance Program, Zach Meyer,
SWRO, P.O. Box 47775, Olympia, WA 98504-7775 (zmey461@ecy.wa.gov)

Washington Department of Fish and Wildlife, Liz Bockstiegel, 600 Capitol Way N., Olympia, WA 98501-1091 (elizabeth.bockstiegel@dfw.wa.gov)
U.S. Army Corps of Engineers, Attn: Regulatory Branch, CENWS-OD-RG Attn: Halie Endicott, P.O. Box C-3755, Seattle, WA 98124 (halie.endicott@usace.army.mil)
U.S. Fish & Wildlife Service, Attn: Judy Lantor, 510 Desmond Drive SE #102, Lacey, WA 98503 (jusdy_lantor@fws.gov)

APPENDIX C.3

Corps of Engineers - NWS-

2011-0089-WRD Port of

Tacoma Programmatic Piling

Repair



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, SEATTLE DISTRICT
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

OCT 09 2018

Ms. Jenn Stebbings
Port of Tacoma
Post Office Box 1837
Tacoma, Washington 98401-1837

Reference: NWS-2011-0089-WRD
Tacoma, Port of
(Programmatic Piling
Repair)

Dear Ms. Stebbings:

Enclosed is a Department of the Army permit which authorizes performance of the work described in your referenced application. You are cautioned that any change in the location or plans of the work will require submittal of revised plans to this office for approval prior to accomplishment. Deviation from the approved plans may result in imposition of criminal or civil penalties.

Your attention is drawn to General Condition 1 of the permit which specifies the expiration date for completion of the work. Upon completing the authorized work, please fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form.

We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at: www.nws.usace.army.mil select "Regulatory Branch, Permit Information" and then "Contact Us.". If you have any questions please contact Mr. Frank Nichols at thomas.f.nichols@usace.army.mil or at (206) 764-6182.

Sincerely,

Jacalen M. Printz
Chief, Regulatory Branch

Enclosures



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, SEATTLE DISTRICT
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

OCT 09 2018

Ms. Jenn Stebbings
Port of Tacoma
Post Office Box 1837
Tacoma, Washington 98401-1837

Reference: NWS-2011-0089-WRD
Tacoma, Port of
(Programmatic Piling
Repair)

Dear Ms. Stebbings:

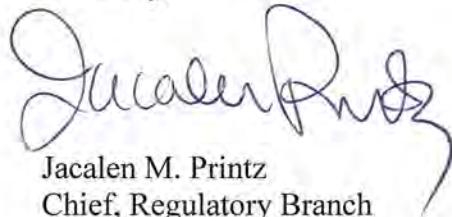
Enclosed for your signature are two initial proffered Department of the Army permit forms for your proposal to replace up to 200 piles per year over a five year period in Sitzcum, Blair, and Hylebos waterways and Commencement Bay at Tacoma, Washington as described in the enclosed drawings dated April 13, 2018. If you object to this permit decision, you may submit your objections on the enclosed *Notification of Administrative Appeal Options and Process and Request for Appeal* form. For your objections to be considered, the appeal form describing your objections must be received in our office within 60 days of the date on the appeal form.

If the entire permit is acceptable, you must sign and date both permit forms and return them in the enclosed envelope. Your copy of the fully executed permit will then be returned to you. The time limit for completing the work at General Condition 1 will be 5 years from the effective date of the permit. You may not modify these permit forms or their accompanying drawings. By signing the permit forms you will be indicating your acceptance of all the permit's general and special conditions, some of which require you to take action by specific due dates. The signed permit forms must be returned to us within 90 days from the date of this letter or your application will be canceled.

Since a Department of the Army permit is necessary for this work, do not commence construction before obtaining a valid permit. You can begin the work authorized by this permit only after you have received your copy of the fully executed permit form. If you have any

questions please contact Ms. Frank Nichols at thomas.f.nichols@usace.army.mil or at (206) 764-6182.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacalen M. Printz".

Jacalen M. Printz
Chief, Regulatory Branch

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Tacoma, Port of	File Number: NWS-2011-89-WRD	Date: OCT 09 2018
Attached is:		See Section below
<input checked="" type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
PROFFERED PERMIT (Standard Permit or Letter of permission)		B
PERMIT DENIAL		C
APPROVED JURISDICTIONAL DETERMINATION		D
PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found in Corps regulations at 33 CFR Part 331 or at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/FederalRegulation.aspx>

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

Y

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Frank Nichols, Project Manager
U.S. Army Corps of Engineers, Seattle District
Post Office Box 3755
Seattle, Washington 98124-3755
Telephone: (206) 764-6182

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:
----------------------------------	-------	-------------------



US Army Corps
of Engineers
Seattle District

CERTIFICATE OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT



Permit Number: NWS- 2011-0089-WRD

Name of Permittee: PORT OF TACOMA

Date of Issuance: OCT 09 2018

Upon completion of the activity authorized by this permit, please check the applicable boxes below, date and sign this certification, and return it to the following address:

Department of the Army
U.S. Army Corps of Engineers
Seattle District, Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-3755

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of your authorization, your permit may be subject to suspension, modification, or revocation.

<input type="checkbox"/>	The work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of this permit. <input type="checkbox"/> Date work complete: _____
<input type="checkbox"/>	<input type="checkbox"/> Photographs and as-built drawings of the authorized work (OPTIONAL, unless required as a Special Condition of the permit).

<input type="checkbox"/>	If applicable, the mitigation required (e.g., construction and plantings) in the above-referenced permit has been completed in accordance with the terms and conditions of this permit (not including future monitoring). <input type="checkbox"/> Date work complete: _____ <input type="checkbox"/> N/A
<input type="checkbox"/>	<input type="checkbox"/> Photographs and as-built drawings of the mitigation (OPTIONAL, unless required as a Special Condition of the permit).

<input type="checkbox"/>	Provide phone number/email for scheduling site visits (must have legal authority to grant property access). Printed Name: _____ Phone Number: _____ Email: _____
--------------------------	--

Printed Name: _____

Signature: _____

Date: _____

DEPARTMENT OF THE ARMY PERMIT

Permittee: Tacoma, Port of

Ms. Jenn Stebbings
Post Office Box 1837
Tacoma, Washington 98401-1837

Permit No: NWS-2011-0089-WRD

Issuing Office: Seattle District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To replace up to 1,000 piles (fender piles, dolphin piles, and /or support piles) and associated pile caps, chocks, whalers, and rub strips over a five year period and place up to 600 cubic yards of clean sand in any area left from pile removal in accordance with the plans and drawings dated April 13, 2018 attached hereto which are incorporated in and made a part of this permit. The purpose of the project is to maintain function and structural integrity of existing wharf/pier structures.

Project Location: In Blair, Hylebos, and Sitzcum Waterways and Commencement Bay at Tacoma, Washington.

Permit Conditions:

General Conditions:

OCT 09 2023

1. The time limit for completing the work authorized ends on _____ . If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in accordance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification to this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

7. After a detailed and careful review of all the conditions contained in this permit, the permittee acknowledges that, although said conditions were required by the Corps, nonetheless the permittee agreed to

those conditions voluntarily to facilitate issuance of the permit; the permittee will comply fully with all the terms of all the permit conditions.

Special Conditions:

- a. You must provide a copy of the permit transmittal letter, the permit form, and drawings to all contractors performing any of the authorized work.
- b. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- c. The permittee must provide a completed "*Port of Tacoma Piling Replacement Program Compliance Form*" by March 15 of each year in which work under this permit is conducted. This completed form must be submitted to the U.S. Army Corps of Engineers, Regulatory Branch, Post Office Box 3755, Seattle, Washington 98124-3755.

The following Special Conditions are being added to the permit to ensure compliance with CERCLA protocols:

- d. By accepting this permit, the permittee agrees to accept such potential liability for response costs, response activity and natural resource damages as the permittee would have under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq. (CERCLA) or the Model Toxics Control Act, R.C.W. 70.105 (MTCA) absent the issuance of this permit. Further, the permittee agrees that this permit does not provide the permittee with any defense from liability under the CERCLA or the MTCA. Additionally, the permittee shall be financially responsible for any incremental response costs attributable under CERCLA or MTCA to the permittee's activities under this permit in the Sittcum, Blair, and Hylebos Waterways and Commencement Bay.
- e. The permittee must provide site specific pre-construction information (number of piles to be removed and replaced, size of piles, type of piles, location of piles within the facility, etc) on the following facilities: Trident Piers 24 and 25; Parcel 99; Parcel 105; and Parcel 86. This information must be provided to the U.S. Army Corps of Engineers, Regulatory Branch, Post Office Box 3755, Seattle, Washington 98124-3755, a minimum of 60 days prior to July 16 of any year this permit is valid to allow for coordination with Environmental Protection Agency (EPA) CERCLA RPMs. Pile replacement at these facilities may not be conducted until CERCLA coordination has been completed and the Port receives written approval to proceed from the U.S. Army Corps of Engineers.
- f. You must implement and abide by the enclosed *Best Management Practices for Piling Removal and Disposal*, dated February 18, 2016.

The following Special Conditions are being added to the permit to ensure compliance with ESA protocols:

- g. Incidents where any individuals of fish species, marine mammals and/or sea turtles listed by National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) under the Endangered Species Act appear to be injured or killed as a result of discharges of dredged or fill material into waters of the U.S. or structures or work in navigable waters of the U.S. authorized by this Nationwide Permit verification shall be reported to NOAA Fisheries, Office of Protected Resources at (301) 713-1401 and the Regulatory Office of the Seattle District of the U.S. Army Corps of Engineers at (206) 764-3495. The finder should leave the animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved and, if possible, take photographs. Adult animals should not be disturbed unless circumstances arise where they are obviously injured or killed by discharge exposure or some unnatural cause. The finder may be asked to carry out instructions

provided by NOAA Fisheries to collect specimens or take other measures to ensure that evidence intrinsic to the specimen is preserved.

h. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the ESA Technical Memorandum, *"Programmatic Biological Evaluation, Port of Tacoma Pile Replacement Program, NWS-2011-89-WRD"*, dated November 2011 – Revised April 2012, in its entirety. The U.S. Fish and Wildlife Service (USFWS) provided the enclosed LOC with a finding of "may affect, not likely to adversely affect" based on this document on May 24, 2012 (USFWS Reference Number #01EWFW00-2012-I-0111). The National Marine Fisheries Service (NMFS) provided the enclosed Letter of Concurrence (LOC) with a finding of "may affect, not likely to adversely affect" based on this document on July 12, 2012 (NMFS Reference #2012/00218). Both agencies will be informed of this permit issuance. Failure to comply with the commitments made in this consultation constitutes non-compliance with the ESA and your U.S. Army Corps of Engineers permit. The USFWS/NMFS is the appropriate authority to determine compliance with the ESA.

i. In order to meet the requirements of the Endangered Species Act you may conduct the authorized activities from July 16 through February 15 in any year this permit is valid. You shall not conduct work authorized by this permit from February 16 through July 15 in any year this permit is valid.

The following Special Conditions are being added to the permit to ensure compliance with tribal treaty rights:

j. The permittee must notify the Puyallup Tribe of Indians (Tribe) Water Quality Program Manager (WQPM) and Resource Protection Manager (RPM) at least 14 days prior to pile removal and installation activities authorized by this permit. The permittee will provide, the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, prior to construction, a copy of the notification provided to the Tribe's WQPM and RPM. The permittee must then obtain written approval from the Corps to proceed with the in-water construction.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:
 - Section 10 of the Rivers and Harbor Act of 1899 (33 United States Code (U.S.C.) 403).
 - Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C 1413).
2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of the permit.

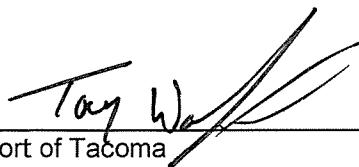
b. The information provided by you in support of your application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 Code of Federal Regulations (CFR), Part 325.7 or enforcement procedures such as those contained in 33 CFR, Parts 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR, Part 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

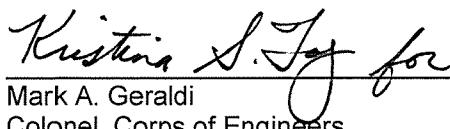
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



Port of Tacoma

10/9/2018
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



Mark A. Gerald
Colonel, Corps of Engineers
District Engineer

10/9/18
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFeree)

(DATE)



FIGURE 01 - Vicinity Map

REFERENCE: NWS-2011-0089-WRD (renewal)
PROJECT: Programmatic Piling Repair
APPLICANT: Port of Tacoma
LOCATION: Tacoma, WA
Lat: 47.266/-122.395

IN: Commencement Bay

NEAR: Tacoma

COUNTY: Pierce

STATE: Washington

ADJACENT LANDOWNERS:

1. City of Tacoma
2. City of Fife
3. WSDOT
4. Puyallup Tribe of Indians
5. Numerous Private Landowners

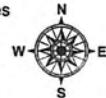
SHEET: 1 OF 7

DATE: 4/13/2018

AUTHOR: Brian Archer

0 0.125 0.25 0.5 0.75 1 1.25 Miles

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Map by
Bentley
MapView

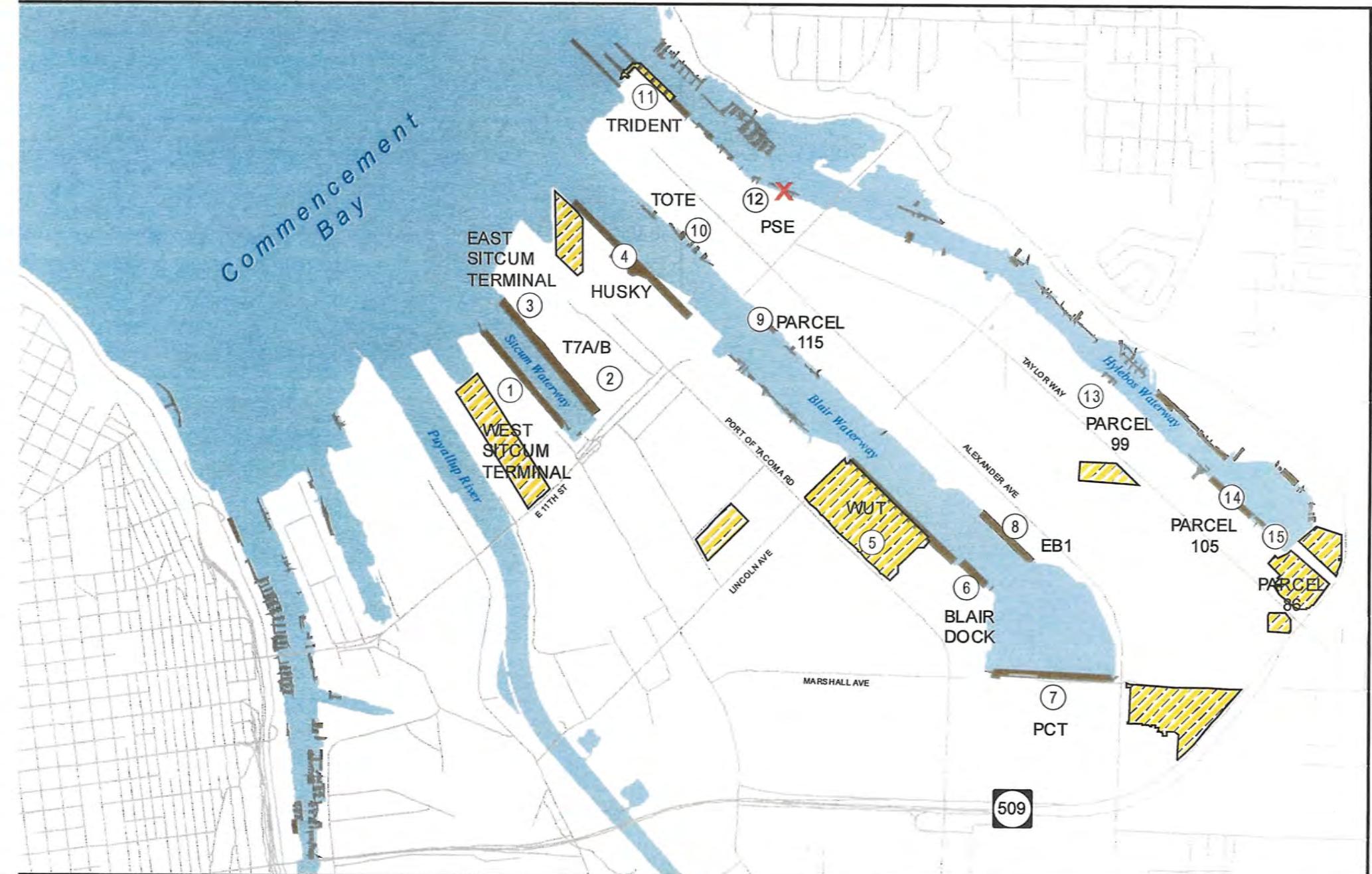


FIGURE 02

SHEET 2 OF 7

APPLICANT: Port of Tacoma

PROJECT: Programmatic Piling Repair

REFERENCE: NWS-2011-0089-WRD

① WEST SITCUM TERMINAL	⑤ WUT	⑨ PARCEL 115	⑬ PARCEL 99
② TERMINAL 7A/B	⑥ BLAIR DOCK	⑩ TOTE	⑭ PARCEL 105
③ EAST SITCUM TERMINAL	⑦ PCT	⑪ TRIDENT	⑮ PARCEL 86
④ HUSKY TERMINAL	⑧ EAST BLAIR 1	⑫ PSE	

DATE: 4/13/2018

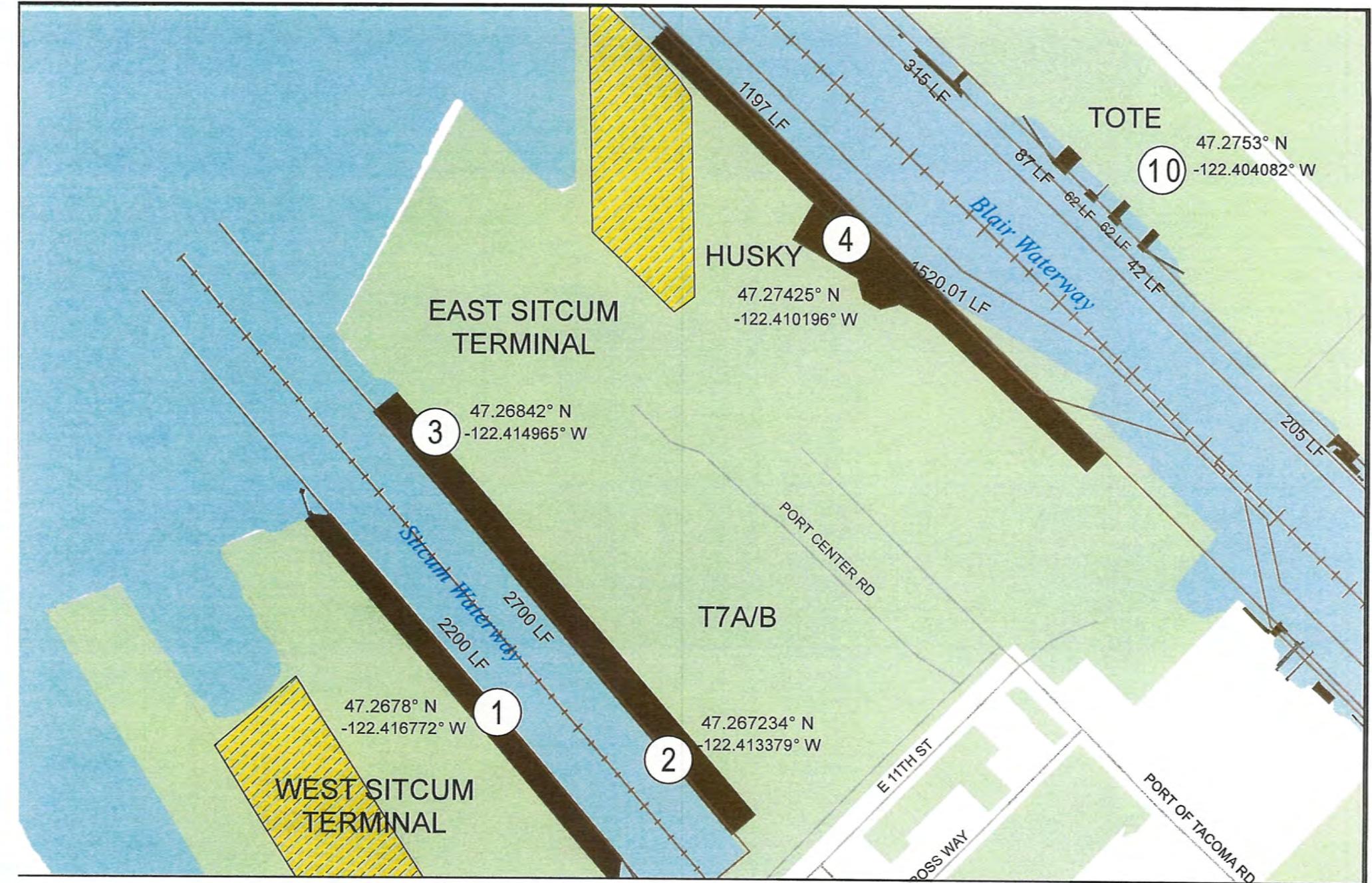
0 0.25 0.5 0.75 1
Miles



Author: Brian Archer
Map Date: 4/13/2018



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- ① WEST SITCUM TERMINAL
- ② TERMINAL 7A/B
- ③ EAST SITCUM TERMINAL
- ④ HUSKY
- ⑩ TOTE

Channel Lines

Roads

Caps

Piers

Waterways

Port Parcels



Author: Brian Archer
Map Date: 4/13/2018



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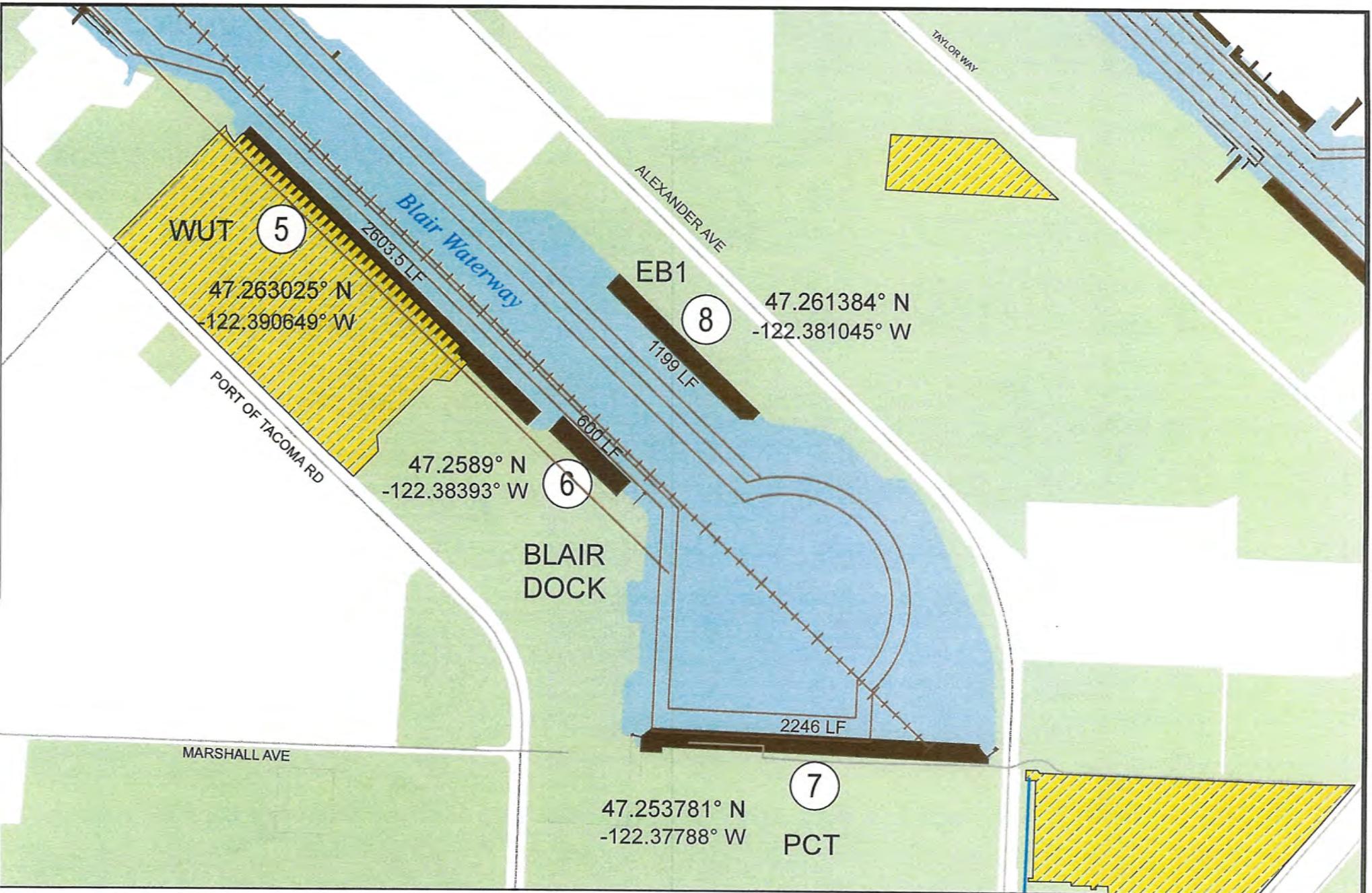


FIGURE 04

DATE: 4/13/2018

SHEET: 4 OF 7

APPLICANT: Port of Tacoma

PROJECT: Program Pile Replacement

REFERENCE: NWS-2011-0089-WRD

⑤ WUT

⑥ BLAIR DOCK

⑦ PCT

⑧ EB1

0 250 500 750 1,000
Feet

Channel Lines

Wapato Creek

Roads

Caps

Piers

Waterways

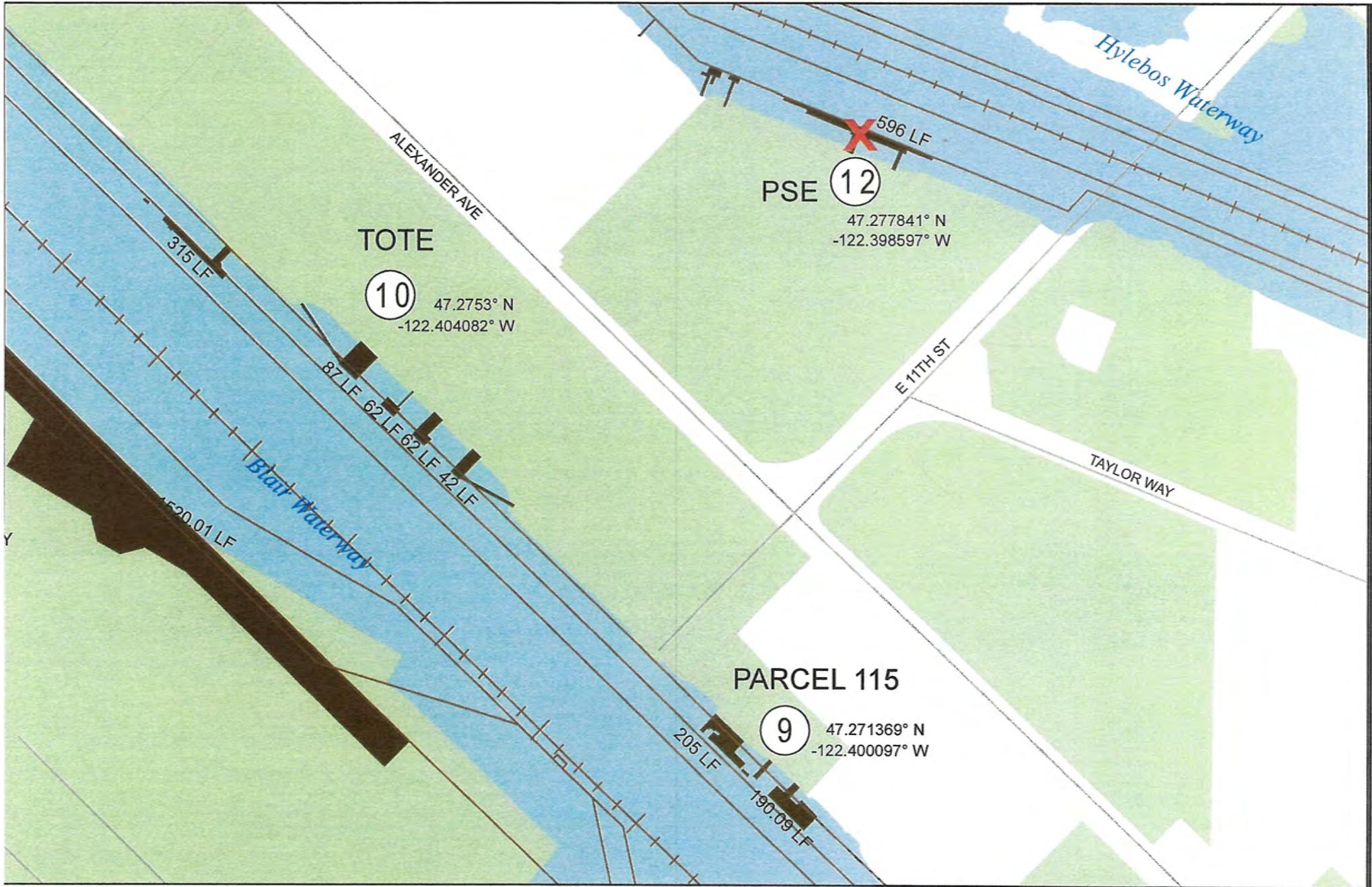
Port Parcels



Author: Brian Archer
Map Date: 4/13/2018

Port of
Tacoma

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- ⑨ PARCEL 115
- ⑩ TOTE
- ⑫ PSE *Request to be removed from permit application.

Channel Lines

Roads

Caps

Piers

Waterways

Port Parcels



Author: Brian Archer
Map Date: 4/13/2018

Port of
Tacoma

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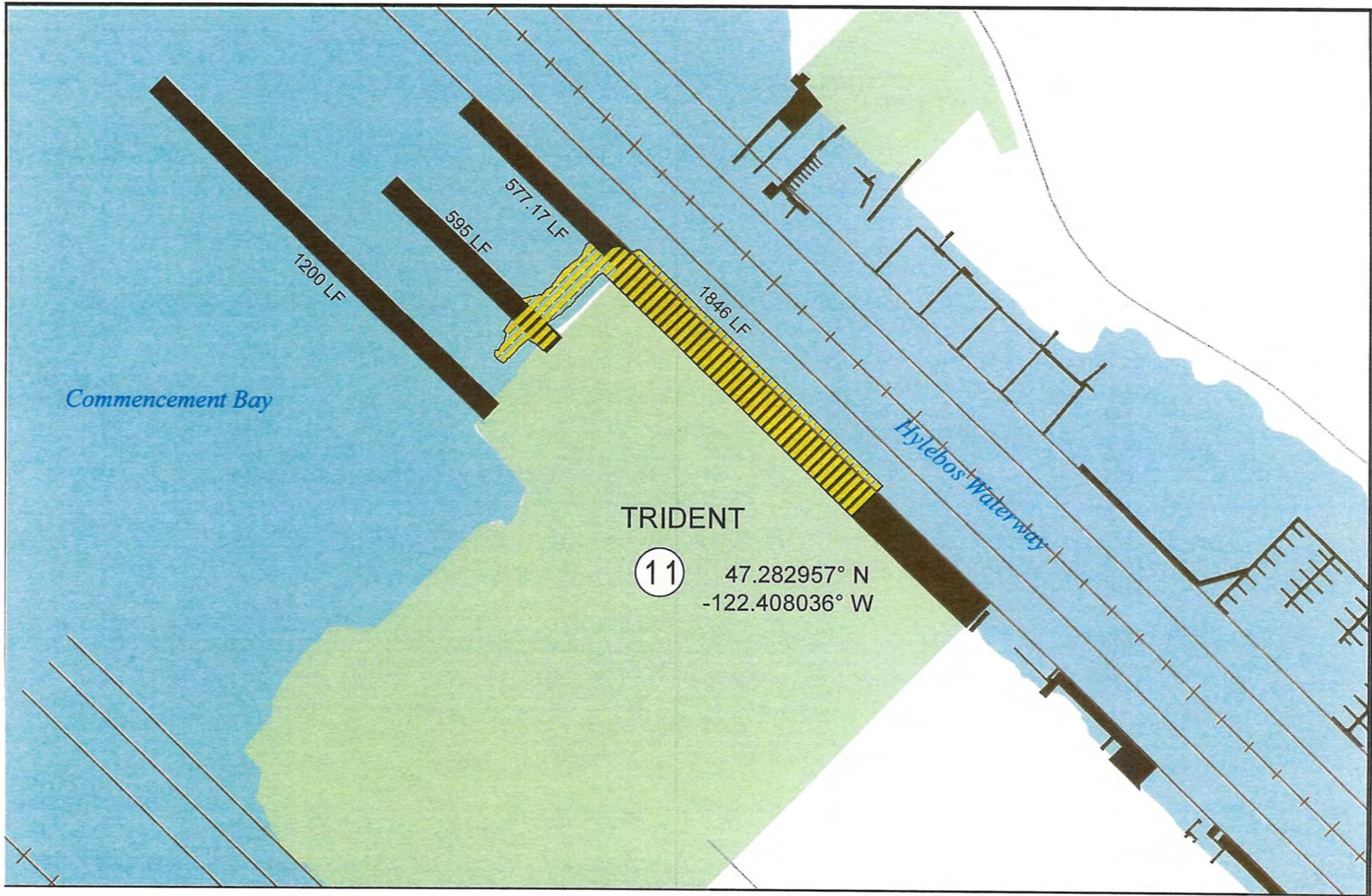


FIGURE 06

DATE: 4/13/2018

11 TRIDENT

SHEET: 6 OF 7

APPLICANT: Port of Tacoma

PROJECT: Program Pile Replacement

REFERENCE: NWS-2011-0089-WRD



Author: Brian Archer
Map Date: 4/13/2018

Port of
Tacoma

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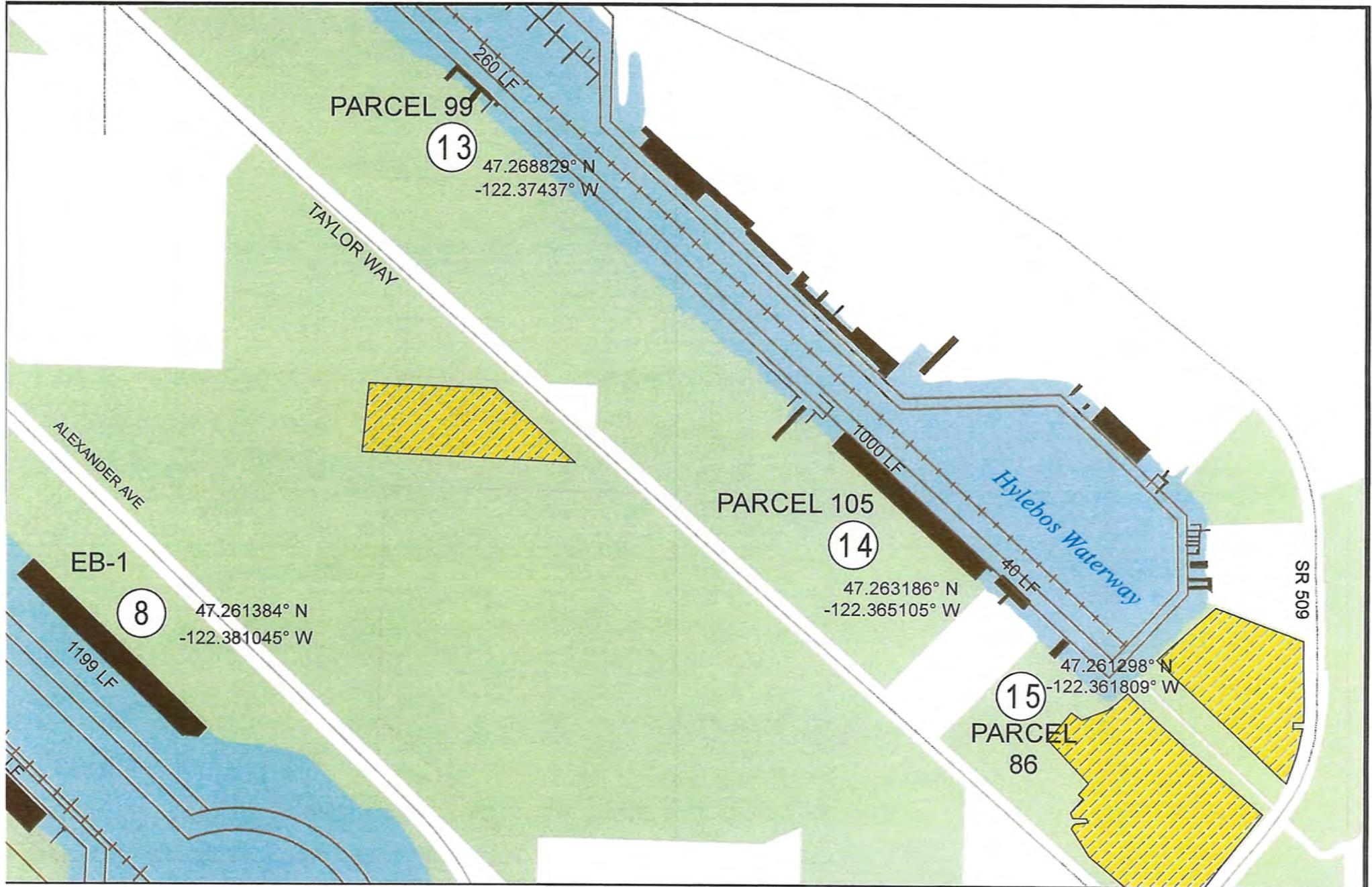


FIGURE 07

DATE: 4/13/2018

SHEET: 7 OF 7

APPLICANT: Port of Tacoma

PROJECT: Program Pile Replacement

REFERENCE: NWS-2011-0089-WRD

- ⑧ EAST BLAIR 1
- ⑬ PARCEL 99
- ⑭ PARCEL 105
- ⑮ PARCEL 86

0 250 500 750
Feet

- Channel Lines
- Roads
- Caps
- Piers
- Waterways
- Port Parcels



Author: Brian Archer
Map Date: 4/13/2018

Port of
Tacoma

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

September 11, 2018

Port of Tacoma
ATTN: Ms. Jennifer Stebbings
PO Box 1837
Tacoma, WA 98401-1837

RE: Water Quality Certification Order No. 15952 for Corps Public Notice No. NWS-2011-0089-WRD for the Programmatic Piling Repair Project, within the Blair, Hylebos, and Sircum Waterways, and Commencement Bay, Tacoma, Pierce County, Washington

Dear Ms. Stebbings:

On November 15, 2017, the Port of Tacoma submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) for a Section 401 Water Quality Certification (401 Certification) under the federal Clean Water Act for the proposed Programmatic Piling Repair Project.

On behalf of the State of Washington, Ecology certifies that the work described in the JARPA and the public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and applicable state laws. This certification is subject to the conditions contained in the enclosed Order.

If you have any questions, please contact Lori Kingsbury at (360) 407-6926. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,

A handwritten signature in black ink, appearing to read "Perry J Lund". The signature is enclosed within a large, thin-lined oval.

Perry J Lund, Section Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

Enclosure

By Certified Mail 9489 0090 0027 6019 1528 66

cc: Frank Nichols, Corps of Engineers
Lisa Anderson, Puyallup Tribe of Indians
Char Naylor, Puyallup Tribe of Indians
Matthew Curtis, WDFW



Port of Tacoma
September 11, 2018
Page 2

e-cc: ecyrefedpermits@ecy.wa.gov
Justine Barton, EPA
Kristine Koch, EPA
Loree' Randall, Ecology
Laura Inouye, Ecology
Zach Meyer, Ecology
Marv Coleman, Ecology
Lori Kingsbury, Ecology

IN THE MATTER OF GRANTING A) ORDER No. 15952
WATER QUALITY) Corps Reference No. NWS- 2011-0089-WRD
CERTIFICATION TO) Programmatic Piling Repair Project within,
Port of Tacoma) Blair, Hylebos, and Sitzcum Waterways, and
in accordance with 33 U.S.C. 1341) Commencement Bay, Tacoma, Pierce County,
(FWPCA § 401), RCW 90.48.120, RCW) Washington
90.48.260 and Chapter 173-201A WAC)
)
)
)

TO: Port of Tacoma
ATTN: Ms. Jennifer Stebbings
PO Box 1837
Tacoma, WA 98401-1837

On November 15, 2017, the Port of Tacoma submitted a Joint Aquatic Resource Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification (WQC). The U.S. Army Corps of Engineers issued a joint public notice for the project pursuant to the provisions Chapter 173-225 WAC on March 15, 2018.

The Port of Tacoma proposes to conduct maintenance activities at 15 wharf/pier structures over a five year period. Work activities include the replacement of up to 200 piles per year (broken fender piles, dolphin piles, and/or support piling) and the associated pile caps, chocks, whalers, and rub strips. The structures are located at West Sitzcum Terminal, Terminal 7 (A and B), East Sitzcum Terminal, Husky Terminal, Washington United Terminal, Blair Dock, PCT, East Blair 1, Parcel 115, Tote, Trident, Parcel 99, Parcel 105, and Parcel 86 within the Port of Tacoma.

Concrete piles will be replaced with concrete piles and will be no greater than 24-inches in diameter. Treated-timber piles will be replaced with ACZA-treated timber piles no greater than 18-inches in diameter.

Existing damaged piles will be removed with a vibratory hammer or by pulling with a choke chain. Piles that break during extraction may be cut off at or below the mudline and the location would be capped with clean sand. Up to 120 cubic yards of clean sand may be placed per year. Up to 1,000 piles could be placed and up to 750 cubic yards of sand could be placed over the five year period.

The purpose of the proposed project is to maintain the function and structural integrity of the existing wharf/pier structures. This project does not include placement of additional structures or expansion of footprints.

The project is located on Port of Tacoma properties within the Hylebos, Blair, and Sitzcum Waterways, and Commencement Bay, Tacoma, Pierce County, Washington; Northwest Quarter of Sections 34, Township 21 North, Range 3 East; WRIA 10, Puyallup-White Watershed.

Order No. 15952
Corps No. NWS-2011-0089-WRD
Port of Tacoma
Programmatic Piling Repair
September 11, 2018
Page 2 of 11

AUTHORITIES:

In exercising authority under 33 U.S.C. §1341, RCW 43.21C.060, and RCW 90.48.260, Ecology has examined this application pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. Sections 1311, 1312, 1313, 1316, and 1317 (FWPCA Sections 301, 302, 303, 306, and 307).
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. 1313 and by Chapter 90.48 RCW, and with other applicable state laws; and,
3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

WATER QUALITY CERTIFICATION CONDITIONS:

Through issuance of this Order, Ecology certifies that it has reasonable assurance that the activity as proposed and conditioned will be conducted in a manner that will comply with applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 U.S.C. § 1341, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC and Chapter 173-201A WAC, water quality certification is granted to the Applicant subject to the conditions within this Order.

Certification of this proposal does not authorize the Applicant to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC). Furthermore, nothing in this certification shall absolve the Applicant from liability for contamination and any subsequent cleanup of surface waters, ground waters or sediments occurring as a result of project construction or operations.

A. General Conditions:

1. For purposes of this Order, the term "Applicant" shall mean the Port of Tacoma and its agents, assignees and contractors.
2. All submittals required by this Order shall be sent to Ecology's Southwest Regional Office, Attn: Federal Permit Manager, SEA Program, PO Box 47775, Olympia, WA 98504-7775 or via e-mail to fednotification@ecy.wa.gov with a copy to Lori.kingsbury@ecy.wa.gov. All submittals shall reference Order No. 15952 and Corps No. NWS-2011-0089-WRD and include the Applicant name, project name, project contact, and the contact's phone number.

3. Work authorized by this Order is limited to the work described in the JARPA received by Ecology on November 15, 2017.
4. The Applicant shall obtain Ecology review and approval before undertaking any changes to the proposed project that may affect water quality and are not authorized by this Order.
5. Within 30 days of receipt of updated information, Ecology will determine if the revised project requires a new Water Quality Certification and Public Notice or if a modification to this Order is required.
6. This Order shall be rescinded if the U.S. Army Corps of Engineers does not issue a Section 404 permit.
7. Copies of this Order shall be kept on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
8. The Applicant shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
9. Nothing in this Order waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified (e.g., violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.
10. The Applicant shall ensure that all appropriate project engineers and contractors at the project site have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order. The Applicant shall provide Ecology a signed statement (see Attachment A for an example) from each project engineer and contractor that they have read and understand the conditions of this Order and the above-referenced permit, plans, documents, and approvals. These statements shall be provided to Ecology before construction begins at the project site.
11. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.
12. Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

B. Water Quality Conditions:

1. This Order does not authorize temporary turbidity exceedances of water quality standards beyond the limits established in WAC 173-201A-210.
 - a. The area of mixing established for turbidity in marine waters is a radius of 150 feet from the in-water activity.
 - b. Turbidity must not exceed 10 NTU over background when the background is 50 NTU or less; or a 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
 - c. pH shall be within the range of 6.5 to 9.0, with a human-caused variation within the above range of less than 0.5 units.
2. The Applicant shall conduct water quality monitoring as described in the approved *Final Water Quality Monitoring and Protection Plan (WQMPP), Port of Tacoma Programmatic Pile Repair and Replacement Project*, prepared by Jenn Stebbings, Port of Tacoma, dated September 5, 2018.
3. Ecology must approve, in writing, any changes or additions to the WQMPP prior to implementation of the changes or additions.
4. Results of the water quality monitoring shall be documented in a report and submitted to Ecology's Federal Permit Manager weekly during the in-water work per condition A.2 of this Order.
5. If water quality exceedances are observed outside the point of compliance, work shall cease immediately and the Applicant or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, correct the problem and prevent further water quality turbidity exceedances.
6. Notification of exceedances shall be made to Ecology **within 24 hours of occurrence**. Notification shall be made with reference to Order No. 15952 Attn: Federal Permit Manager by telephone at (360) 407-6926 or by e-mail to fednotification@ecy.wa.gov with a copy to Lori.kingsbury@ecy.wa.gov. The Applicant shall, at a minimum, provide Ecology with the following information:
 - a. A description of the nature, extent, and cause of the exceedance.
 - b. The period of non-compliance, including exact dates, duration, and times and/or anticipated time when the project will return to compliance.
 - c. The steps taken, or to be taken to reduce, eliminate, and prevent a recurrence of the non-compliance.
 - d. In addition, within five (5) days after the notification of the exceedance, the Applicant shall submit a written report to Ecology (per conditions A.2.) that describes the nature

of the exceedance(s), corrective action taken and/or planned, steps taken to prevent a recurrence, photographs, and any other pertinent information.

7. Mitigation and/or additional monitoring may be required if the monitoring results indicate that the water quality standards have not been met.

C. Timing Requirements:

1. This Order shall remain in effect for a period of five (5) years from the date of issuance. Continuing this project beyond the five-year term of this Order will require the Applicant to submit a request for an extension at least 60 days prior to the expiration of this Order.

2. In-water work window:

- July 16 to February 14 of any year

D. Notification Requirements:

1. The Applicant shall provide a copy of the final Corps Permit to Ecology's Southwest Regional Office Federal Permit Manager (in accordance with Condition A.2, above) within two weeks of receipt of the permit.
2. Written notification (e-mail is preferred) shall be made to Ecology's Southwest Regional Office Federal Permit Manager in accordance with condition A2, above for the following activities:
 - a. At least ten (10) days prior to the onset of in-water work for each construction season;
 - b. Within ten (10) days after completing in-water work for each construction season;
 - c. Immediately following a violation of the state water quality standards or any condition of this Order;
 - d. The Applicant shall provide an annual report to Ecology by January 31 of the following year that includes the details of the piling repair work conducted in the previous year including location information, photos, details of any problems and how they were resolved, and a list of piling work that is planned for the next calendar year.

E. Project Specific Conditions:

General Construction

1. All work in and near waters of the state shall be done so as to minimize turbidity, erosion, and other water quality impacts. Construction stormwater, sediment, and erosion control Best Management Practices (BMP's) suitable to prevent exceedances of state water quality standards shall be in place at before starting maintenance work and shall be maintained throughout the duration of the maintenance activity.
2. Staging areas will be located a minimum of 50 feet from waters of the state, including wetlands. If a staging area must be located within 50 feet of waters of the state, then the

Applicant shall provide a written explanation (with additional BMPs) and obtain approval from Ecology's Federal Permit Manager before placing the staging area within the setback area.

3. No Stockpiling or staging of materials shall occur within the OHWM of any waterbody.
4. In order to prevent contamination to surface waters, machinery and equipment used during construction shall be serviced, fueled, and maintained on uplands a minimum of 100 feet from waters of the state including wetlands, unless otherwise approved by Ecology.
5. No petroleum products, fresh concrete, lime, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.
6. All equipment that will operate over or within waters of the state shall be free of external petroleum-based products. Accumulation of soils or debris shall be removed from the drive mechanisms and the undercarriage of equipment prior to use. Equipment shall be inspected daily for leaks, accumulation of grease, etc. Any identified problems shall be fixed before operating over or within waters of the state.
7. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working area shall not be discharged into state waters. The Applicant shall establish a separate, contained area for washing down vehicles and equipment that does not have any possibility of draining to surface waters and/or wetlands.
8. All construction debris, concrete waste material, excess sediment, and other solid waste shall be properly managed and disposed of in an upland disposal site approved by the appropriate regulatory authority.
9. The Applicant shall have a boat available on site during in-and over-water work activities to manage booms and retrieve any debris that enters the water.
10. The Applicant shall ensure that fill material (sand) placed for the proposed project does not contain toxic material in toxic amounts.
11. The Applicant shall use tarps or other containment method when cutting, drilling, or removing biofouling over water to prevent sawdust, concrete rubble, and other debris from entering waters of the state.

Work In Potentially Contaminated Areas

12. Work proposed within or adjacent to an existing or previously designated Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site shall be coordinated with the Puyallup Tribe and CERCLA agencies and any recommendations that result from that coordination implemented.

13. Work proposed within or adjacent to an existing or previously designated Model Toxics Control Act (MTCA) site shall be coordinated with Ecology and any recommendations from that coordination followed.
14. If contamination is discovered, it must be reported to Ecology (per Condition A2, above). Contaminated soils or water may require special handling and/or disposal to avoid water pollution during pile repair/replacement activities.

Pile Installation and Removal

15. The Applicant shall consider the best tidal conditions for piling removal that may result in the least amount of disturbance to in place sediment. If piling removal results in exceedance of turbidity at the compliance boundary, reconsider the timing of the removal to a more restricted timeframe. For example. The lowest practical tide condition or around slack water.
16. Vegetable-based hydraulic fluid shall be utilized in pile driving equipment.
17. New piling shall be ACZA-treated timber, or concrete. ACZA-treated timber shall comply with the Western Wood Preservers Institute BMPs.
18. New piling shall be installed using a vibratory hammer and may be proofed with an impact hammer. In some instances use of an impact hammer may be necessary for full installation.
19. If an impact hammer is used for pile installation or proofing, a suitable noise attenuation device (such as a bubble curtain or wood block) shall be used to protect marine life.
20. Rub strips shall be made of ultra-high molecular weight (UHMW) or high-density polyethylene (HDPE) plastic.
21. Hydraulic jetting devices shall **not** be used to place or remove piles or move sediment away from the piling.
22. A containment boom and oil-absorbent sausage booms shall be placed around the perimeter of the work area when removing creosote-treated piles to capture debris and other material. All accumulated debris shall be removed at least daily (and always prior to moving the boom) and disposed of at an approved upland disposal facility.
23. Piling shall be removed using vibratory methods or by pulling with a choke chain.
24. The operator shall “wake up” piling to be removed by vibrating it to break the skin friction bond between piling and sediment. This bond breaking will minimize turbidity in the water column as well as possibly breaking off the piling.
25. The work areas on barge decks or uplands shall include a containment basin for piles and any sediment/slurry associated with the pile removal. The containment basins shall have continuous sidewalls and be constructed in such a fashion to prevent any release of

contaminants or debris into waters of the state. Water/slurry remaining in the containment basins shall not be discharged into waters of the state.

26. Once removed from the substrate, piles shall be moved directly from the water into the containment basin and shall not be shaken, hosed-off, stripped or scraped off, left hanging to drip, or any other action intended to clean or remove adhering material from the pile.
27. If piles break during removal and cannot be extracted by mechanical means, the piling shall be cut off at or below mudline and capped with a nominal 6-inch cover of clean sand.
28. All piles that are cut off and not fully extracted shall have the locations identified with GPS and the coordinates documented in the annual report submitted to Ecology. (Per condition D.2.d. above.)
29. Extracted piles, excess sediment, all construction debris and other solid waste material shall be properly managed and disposed of in an approved upland disposal site.

Concrete Work

30. Spill protection measures shall be in place prior to any concrete delivery over water. All forms for any concrete structures shall be completely sealed off to prevent the possibility of fresh concrete entering waters of the state.
31. Concrete delivery systems shall be inspected daily to prevent any discharges of concrete and/or slurry water into waters of the state.
32. Concrete process water shall not enter waters of the state. Any concrete process/contact water discharged from a confined area with curing concrete shall be routed to upland areas to be treated and disposed of properly with no possible entry to waters of the state.

G. Emergency/Contingency Measures:

1. The Applicant shall develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan for all aspects of this project and shall have adequate and appropriate spill response materials on hand to respond to emergency release of petroleum products or any other material to waters of the state.
2. Any work that is causing distressed, dead, or dying fish; or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Applicant or Operator shall immediately take the following actions:
 - a. Cease operations that are causing the compliance problem.
 - b. Assess the cause of the water quality problem and take appropriate and immediate measures to correct the problem and/or prevent further environmental damage.

- c. In the event of finding distressed, dead, or dying fish, the Applicant or Operator shall collect fish specimens and water samples in the affected area within the first hour of the event. These samples shall be held in refrigeration or on ice until instructed by Ecology on what to do with them. Ecology may require analysis of these samples before allowing the work to resume.
- d. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
- e. Immediately notify Ecology's 24-Hour Spill Response Team at 1-800-645-7911 and within 24 hours of spills or other events to Ecology's Federal Permit Manager at (360) 407-6926 or (360) 407-6300.
- f. Submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps taken to prevent recurrence, results from any samples taken, and any other pertinent information.

3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
4. If at any time during work the Applicant finds buried chemical containers, such as drums, or any unusual conditions indicating disposal of chemicals, the proponent shall immediately notify Ecology using the above phone numbers.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Order No. 15952
Corps No. NWS-2011-0089-WRD
Port of Tacoma
Programmatic Piling Repair
September 11, 2018
Page 10 of 11

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
<p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503</p> <p>Pollution Control Hearings Board 1111 Israel Rd SW, Suite 301 Tumwater, WA 98501</p>	<p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p> <p>Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903</p>

CONTACT INFORMATION

Please direct all questions about this Order to:

Lori Kingsbury
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775
Lori.kingsbury@ecy.wa.gov

MORE INFORMATION

Pollution Control Hearings Board Website
www.cho.wa.gov/Boards_PCHB.aspx

Chapter 43.21B RCW - Environmental Hearings Office – Pollution Control Hearings Board
<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21B>

Chapter 371-08 WAC – Practice and Procedure
<http://apps.leg.wa.gov/WAC/default.aspx?cite=371-08>

Chapter 90.48 RCW – Water Pollution Control
<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>

*Order No. 15952
Corps No. NWS-2011-0089-WRD
Port of Tacoma
Programmatic Piling Repair
September 11, 2018
Page 11 of 11*

Chapter 173.204 WAC – Sediment Management Standards
www.ecy.wa.gov/biblio/wac173204.html

Chapter 173-200 WAC – Water Quality Standards for Ground Waters of the State of Washington
www.ecy.wa.gov/biblio/wac173200.html

Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington
www.ecy.wa.gov/biblio/wac173201A.html

SIGNATURE



Perry J Lund, Section Manager
Shorelands and Environmental Assistance Program
Southwest Regional Office

9/11/2018

Date

**EPA Region 10
Best Management Practices
For Piling Removal and Placement in Washington State**

February 18, 2016

The following Best Management Practices (BMPs) developed by the Environmental Protection Agency (EPA) are listed by each activity associated with piling removal and placement and are applicable to projects conducted in marine and freshwater environments of Washington State as well as piling “repair” which includes aspects of both pile removal and placement. A project may include multiple methods of removal or placement. Furthermore, these BMPs may be used for projects in other states as long as they are consistent with any relevant requirements of the appropriate state and federal agencies.

The purpose of these BMPs is to protect water, sediment and habitat quality by minimizing turbidity, sediment disturbance and debris re-entry to the water column and benthic zone during pile removal/placement activities. These BMPs are applicable, regardless of the degree of sediment contamination that may be present, to all types of piling (wood, steel, concrete, plastic) or piling combinations (e.g., dolphins), and for any location (freshwater or saltwater) regardless of tide or sediment makeup (silt, sand, etc.). Additional BMPs that may be particularly applicable for permitted projects co-located with contaminated sediments, or within the boundaries of a regulated sediment clean-up site, are called out in text boxes.

Several agencies have published BMPs related to minimizing the introduction and spread of contaminants associated with pile placement and/or removal (e.g., WDNR¹, WDFW², NOAA³). Additionally, there are BMPs focused on impacts beyond those covered in this document that are applicable to all in-water construction involving piling. An example is adherence to site specific work windows. One overriding BMP, applicable to all in-water piling removal/placement, is adherence to the approved work windows for Endangered Species Act (ESA) fish protection as described in the US Army Corps of Engineers (USACE) Permit Guidebook:

<http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook.aspx>

Furthermore, National Marine Fisheries Service (NMFS) and the US Fish and Wildlife Service (USFWS) have specific conservation measures that must be followed in order to avoid and/or minimize the effects of underwater noise generated during pile driving and removal operations on ESA-listed fish, marbled murrelets, and marine mammals. It is recommended that the

¹ WA Department of Natural Resources Derelict Creosote Piling Removal BMPs see http://wa-dnr.s3.amazonaws.com/publications/aqr_rest_pilingremoval_bmp.pdf

² WA Department of Fish and Wildlife Hydraulic Code rules (WAC 220-660-140 and 380) for residential and public recreational docks, pier, ramps, floats, watercraft lifts, and buoys in freshwater and saltwater areas.
<http://apps.leg.wa.gov/wac/default.aspx?cite=220-660>

³ National Oceanic and Atmospheric Administration, 2009. The Use of Treated Wood Products in Aquatic Environments: Guidelines to West Coast NOAA Fisheries Staff for Endangered Species Act and Essential Fish Habitat Consultations in the Alaska, Northwest and Southwest Regions. Prepared by NOAA Fisheries –Southwest Region, October 12, 2009.

applicant contact NMFS and USFWS to determine if there are ESA-listed species in the project area, and to request technical assistance on conservation measures that could be incorporated into the project to minimize noise-related impacts to listed species.

PILING REMOVAL – General BMPs

The following general BMPs (see also Debris Control BMPs) apply to all piling removal activities regardless of the extraction or cutting technique:

1. Prior to commencement of the work the project engineer or contractor should assess the condition of the piling, and identify whether piling will be removed using a barge or upland equipment. The contractor's work plan must include procedures for extracting and handling piling that break off during removal. In general, complete extraction of piling is always preferable to partial removal.
2. When possible, removal of treated wood piling should occur in the dry or during low water conditions. Doing so increases the chances that the piling won't be broken (greater visibility by the operator) and increases the chances of retrieval in the event that piling are broken.
3. The crane operator shall remove piling slowly. This will minimize turbidity in the water column as well as sediment disturbance.
4. The operator shall minimize overall damage to treated wood piling during removal. In particular, treated wood piling must not be broken off intentionally by twisting, bending or other deformation. This will help reduce the release of wood-treating compounds (e.g., creosote) and wood debris to the water column and sediments.
5. Upon removal from the substrate and water column, the piling shall be moved expeditiously into the containment area for processing, and disposal at an approved off-site, upland facility (see #24 and #25 below).
6. The piling shall not be shaken, hosed-off, stripped or scraped off, left hanging to drip or any other action intended to clean or remove adhering material from the piling. Any sediment associated with removed piling must not be returned to the waterway. Adhered sediments associated with treated piling are likely contaminated and may, along with piling, require special handling and disposal.
7. The operator shall make multiple attempts to remove a pile before resorting to cutting (See Piling Removal BMPs).

PILING REMOVAL - Vibratory Extraction Specific BMPs

Vibratory extraction is the preferred method of piling removal because it causes the least disturbance to the seabed, river or lake bed and it typically results in the complete removal of the piling from the aquatic environment.

8. The operator should “wake up” piling by vibrating to break the skin friction bond between piling and sediment. This bond breaking avoids pulling out a large block of sediment and possibly breaking off the piling in the process.

PILING REMOVAL - Direct Pull Extraction Specific BMPs

Direct pull extraction refers to the removal of piling by grabbing or wrapping the piling and then directly pulling the piling from the sediment – using a crane or other large machinery. For example, piling are wrapped with a choker cable or chain and then removed by crane with a direct upward pull. Another method could involve an excavator with a pincer attachment that can grasp a pile and remove it with a direct upward pull. The use of direct pull can be combined with initial vibratory extraction.

9. Excavation of sediment from around the base of a pile may be required to gain access to portions of the pile that are sound, and to allow for extraction using direct pull methods. Excavation may be performed in-the-dry at low tide or in the water using divers. Hydraulic jetting devices should not be used to move sediment away from piling, in order to minimize turbidity and releases to the water column and surrounding sediments.

PILING REMOVAL - Clamshell Bucket Extraction Specific BMPs

Clamshell removal of piling uses a barge-based or upland excavator-mounted clamshell bucket. The clamshell is lowered from a crane and the jaws grasp the piling stub as the crane pulls up. Clamshell bucket extraction has the potential to disturb sediments if deployed close to the sediment surface and increases the likelihood of damaging piling which can result in incomplete removal of a pile. However, a clamshell bucket may be needed when broken or damaged piling cannot be removed using vibratory or direct pull extraction methods. Extraction with a clamshell might be the best way to remove piling that were cut at or below the mudline previously and have little or no stub accessible above the mudline.

10. To the extent possible, clamshell extraction should be performed in the dry during low tide, low river flows, or reservoir draw-down. Under these conditions, the operator can see the removal site and piling, improving the chance for full removal of piling.

11. Since sediment management is potentially a larger concern when using a bucket, every effort should be made to properly size the bucket to the job and operate it in ways that minimize sediment disturbance.

12. Excavation of sediment from around the base of a pile may be needed to gain access to portions of the pile that are sound, and to allow for extraction using a clam shell. Excavation may be performed in-the-dry at low tide or in the water using divers. Hydraulic jetting devices should not be used to move sediment away from piling, in order to minimize turbidity and releases to the water column and surrounding sediments.

13. Because clamshell extraction has a higher potential to generate debris, it is particularly important that an offshore boom be in place with this removal technique. If treated wood piling are being removed, extracted piles shall be transferred to the containment basin without leaving the boomed area to prevent loss of treated wood chemicals (e.g., creosote) and debris to the water column and sediments.

14. The operator must minimize pinching of treated wood and overall damage to treated wood piling during removal. This will help reduce the potential for releasing treated wood chemicals (e.g., creosote) and debris to the water column and sediments.

15. No grubbing for broken piling is allowed.

Additional Pile Removal BMPs for Locations with Contaminated Sediments

- During project planning, consider that the best tidal condition for piling removal will be dictated by the specifics of the removal. For example, in some circumstances water access for removal equipment at high tide may be less disturbing to the sediment than access in the dry at low tide. In others, removal in the dry is the best option.
- During project planning, consider the pros/cons of each method and its potential to disturb contaminated sediments. For example, while a clamshell bucket may be more feasible for removal of buried or broken piling, it is also more likely to disturb sediments. It may be preferable to manually excavate and remove by direct pull.
- Based on EPA's experience at numerous Superfund cleanup sites (e.g., Pacific Sound Resources, Olympic View, Ketchikan Pulp Mill and Lockheed), extraction of piling is not expected to result in exposure to subsurface contaminated sediments via an exposed "hole". Therefore EPA does not require placement of sand prior to or after pile pulling, unless it is part of an overall project design, such as a cap. Undocumented placement of clean sand may complicate future characterization efforts at cleanup sites.
- If piling removal results in exceedance of turbidity or other water quality standards at the compliance boundary, reconsider the timing of removal to a more restricted time frame, for example, the lowest practical tide condition or around slack water.

PILING REMOVAL - Pile Cutting Specific BMPs

Pile cutting shall be considered a last resort following multiple attempts to fully extract piling using vibratory, direct pull, and/or clamshell bucket extraction. On a project-specific basis, pile cutting may be appropriate to maintain slope stability or if a pile is broken and cannot be removed by other methods. A pneumatic underwater chainsaw, shearing equipment, or other equipment should be used to cut a pile.

16. Piling shall be cut below the mudline, with consideration given to the mudline elevation, slope and stability of the site.
17. In intertidal and shallow subtidal areas (shallower than -10 ft MLLW) seasonal accretion and erosion of the nearshore and/or beach can expose cutoff piling. In these locations, piling should be cut off at least 2-feet below the mudline. In deeper subtidal areas (deeper than -10 ft MLLW), piling should be cut off at least 1-foot below the mudline.
18. Hand excavation of sediment (with divers in subtidal areas) is needed to gain access for cutting equipment. To minimize turbidity and releases to the water column and surrounding sediments, hydraulic jetting devices shall not be used to move sediment away from piling.
19. As a condition of their permit, the permittee will be required to provide a post-construction drawing/map to the Corps of Engineers for the Administrative Record, which shows the location and number of piling left in place (above and below mudline) with the GPS location(s) in NAD 83. The permittee will also be required to provide this information to the property owner(s).

Additional Pile Cutting BMPs for Locations with Contaminated Sediments:

- Complete removal of piling from the environment is preferred. When necessary, project-specific requirements (including equipment selection) for cutting shall be set by the project engineer, and coordinated with EPA and any other appropriate resource agencies, considering the mudline elevation, slope and stability of the site and the condition of the piling.
- If cutting is required, the appropriate depth below mudline for cutting should be made on a project-specific basis, with the goal of minimizing both the resuspension of contaminated sediments and release of wood treatment chemicals.
- For projects with derelict treated pile stubs which can't be removed, consideration should be given to either leaving these in place or, if possible, cutting them below the mudline. Cutting the pile at the mudline may release PAHs into the water column. If a sand cover is placed over the cut pile this may help contain the PAHs, however the new sediment may move over time and the pile may be exposed again. WDNR is currently testing other methods to fully extract piling stubs.
- The decision to leave piling in place that were originally slated for removal must be coordinated with EPA and any other appropriate resource agencies. For example, if the work is being performed as part of a State or Federal cleanup, the decision to leave piling in place, as well as documentation, must be coordinated with the agency with cleanup oversight.
- Any piling left in place (including those below mudline) must be mapped with GPS coordinates (in NAD 83) and characterized by the project engineer. This information must be provided to the Federal or State agency with cleanup oversight, or in the case of a Corps permit, the permittee will be required to provide a post-construction map to the Corps of Engineers for the Administrative Record, which shows the location and number of piling left in place (above and below mudline) with the GPS location(s) in NAD 83. This information will also be provided to the property owner(s).

PILING REMOVAL - Debris Control BMPs

The following BMPs apply to all piling removal activities regardless of the extraction/cutting technique:

20. All work should be confined to within a floating containment boom. The need for, type and size of the boom should be determined on a project-specific basis considering project size, habitat, water flow conditions, sediment quality, etc. A description of boom placement and management must be included in the permit application. A small boat should be available at all times during active construction to manage the boom and captured debris. If used, anchors must be removed once the project is complete.

21. For projects removing treated wood piling or a pier with wood components (like decking), a floating boom with absorbent pads must be installed to capture floating surface debris and any creosote sheen.
 - a) The boom shall be located at a sufficient distance from all sides of the structure or piling that are being removed to ensure that contaminated materials are captured.
 - b) Extracted piles shall be transferred to the containment basin without leaving the boomed area to prevent loss of treated wood chemicals (e.g., creosote) and debris to the water column and sediments.
 - c) The boom shall stay in its original location until any sheen present from removed piling has been absorbed by the boom or removed utilizing absorbent material.
22. Any shavings, sawdust, woody debris (splintered wood, fragments, loose piling) on the water or sediment surface must be retrieved and placed in the containment area. Likewise any pile-associated sediment and adhered organisms must be collected daily, contained on site, and ultimately disposed at an approved upland disposal site along with the extracted piling and decking.
23. When asphalt or other decking is removed, the contractor shall prevent asphalt grit or other debris on the pier from entering the water. Prior to demolition, the contractor shall remove as much of the surface asphalt grit and debris as possible. Floating platforms, suspended tarps, or other means should be deployed under and around the structure to capture grit and debris.

PILING REMOVAL - Piling Storage, Handling and Disposal BMPs

The following BMPs apply to all piling and associated piling-derived debris.

24. Upon removal from the substrate, the piling and associated sediments shall be moved expeditiously from the water into a containment area on the barge deck, adjacent pier, or upland area.
25. The containment area shall be constructed in such a fashion as to restrict any release of contaminants or debris to the aquatic environment. Containment areas on barges, piers and upland areas shall have continuous sidewalls and controls as necessary (e.g., straw bales, oil absorbent boom, ecology blocks, durable plastic sheeting or lining, covers, etc.) to contain all sediment, wood-treating compounds, organisms and debris, and to prevent re-entry of these materials into the aquatic environment.
26. Any floating debris, splintered wood, or sediment removed during pile pulling must be placed in a containment area.
27. Creosote-treated wood piling/sections shall be disposed of in a manner that precludes their further use. Piling will be cut into manageable lengths (4-foot or less) for transport and disposal at an approved upland location that meets the liner and leachate standards of the

Minimum Functional Standards, Chapter 173-304 WAC. In all cases, the permittee must be prepared to provide documentation of disposal.

28. Any sediments, construction debris/residue and plastic sheeting from the containment basin shall be removed and disposed in accordance with applicable federal and state regulations. For disposal, this will require shipment to an approved Subtitle D Landfill.

Additional Pile Storage, Handling and Disposal BMPs for Locations with Contaminated Sediments:

- Pre-project planning shall include measures to minimize water contact with piling and associated contaminated sediments. For example, the containment area can be designed to be covered during precipitation and when not in use, and/or piling and associated sediment can be quickly moved to a final disposal location and not retained at the project site.
- Water collected in a containment area may require special management or treatment depending on project specifics. In some cases, water may be stored in Baker tanks and treated off site. In others, a treatment system may be constructed on site. Discharge water must meet the requirements of the Clean Water Act, including the requirements of a National Pollution Discharge and Elimination System permit (or substantive requirements) in order to discharge to surface water.

PILING PLACEMENT - Piling Material BMPs

29. Piling may be made of steel, concrete, plastic, treated or untreated wood. For large structural replacements, EPA encourages installation of piling made of concrete, steel, or plastic.

30. If treated wood is used, piling must be treated with wood preservatives in compliance with the Registration Documents issued by EPA under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), and following the Western Wood Preservers Institute (WWPI) guidelines and BMPs to minimize the preservative migrating from treated wood into aquatic environments (see http://www.wwpinstitute.org/documents/BMP_Revise_4.3.12.pdf). Rub strips are required if treated wood is to be used for fender piling.

31. Note that WDFW Hydraulic Code rules prohibit use of wood treated with oil-type preservatives (creosote, pentachlorophenol) in both marine (WAC 220-660-400 6b) and freshwater environments (WAC 220-660-120 6f). Wood treated with waterborne-type preservatives (e.g., ACZA, ACQ) may be used if these are manufactured and installed according to WWPI guidelines and BMPs. WDNR does not allow use of creosote or

otherwise treated (ACZA and CCA) wood for new construction on state-owned aquatic land in both marine and freshwater environments.

PILING PLACEMENT – General BMPs

32. Wood, concrete, steel or plastic piling may be installed using vibratory methods and/or an impact hammer. Vibratory methods are typically preferred as they reduce impacts to fish listed under the Endangered Species Act (ESA), though this method may be combined with impact hammer for proofing. At the design phase, it is recommended that the applicant contact the U.S. Fish and Wildlife Service and National Marine Fisheries Service to determine if there are ESA-listed species in the project area, and to request technical assistance on conservation measures that could be incorporated into the project to minimize impacts to listed species.

33. Hydraulic jetting devices shall not be used to place piling.

34. When a pile is being repaired using splicing or other methods, the permittee shall prevent the introduction of construction-related materials into the aquatic environment. For example, wet concrete must be prevented from entering waters of the state, and forms/sleeves made of impervious materials must remain in place until concrete is cured. Additionally, when a maintenance or repair method requires cleaning of piling, e.g. removal of encrusting organisms, any removed material must be captured and disposed upland.

35. When steel or plastic piling are being reused in the aquatic environment, any sediment adhered to piling or remaining inside of hollow piling must first be removed and disposed of upland at an appropriate location. Creosote-treated piling may not be reused.

36. When proposing to reuse piling, the applicant must evaluate whether there is the potential to transport invasive species from the source area, and must ensure their complete removal such that there is no opportunity for transport/transfer of invasive species. For more information on areas of concern for the spread of invasive species and procedures for minimizing the spread of invasive species through de-contamination see:

<http://www.ecy.wa.gov/programs/eap/InvasiveSpecies/AIS-PublicVersion.html>.

Appendix A
PORT OF TACOMA PILING REPLACEMENT PROGRAM COMPLIANCE FORM

Corps Reference #: NWS-2011-89-WRD

NMFS Reference #:

FWS Reference #:

Reporting Period:

Date of Report:

Report Preparer:

By March 15th of each year in which work under the above referenced permit is conducted, this compliance form will be filled out, signed and submitted to: U.S. Army Corps of Engineers, Regulatory Branch, P.O. Box 3755, Seattle, WA 98124-3755.

1. Permittee:

Port of Tacoma
PO Box 1837
Tacoma, Washington 98401-1837

2. Summary of completed work:

Waterway Name	# Concrete Replacement Piling Installed	# AZCA Timber Replacement Piling Installed	Linear Feet Waterway Impact
Blair Waterway			
Hylebos Waterway			
Sitcum Waterway			
Commencement Bay			
Totals			

* Linear feet of waterway impact is calculated as the maximum linear distance between two piles at each structure where pile replacement is conducted. The number reported is the sum total of linear feet impacted in each waterway.

3. Additional Notes:

I hereby certify that the above-described work has been conducted in compliance with the terms and conditions of this permit, including any project specific conditions required by the District Engineer to ensure that this work would have no more than minimal adverse impact on the aquatic environment.

Signature of Permittee

Date



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503

In Reply Refer To:
01EWFW00-2012-I-0111

MAY 24 2012

RECOMMENDATION
Michelle Walker
Regulatory Branch Chief
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, Washington 98124-3755

MAY 29 2012

REGULATORY

Dear Ms. Walker:

This is in response to your letter and attached Biological Evaluation (BE), for the proposed Port of Tacoma (Port) pile replacement programmatic located in Commencement Bay, Pierce County, Washington (T21N, R03E, Section 35). Your letter, the Memorandum for the Services, and the BE were received in our office on January 26, 2012. Additional information was received on April 13, 2012. The letter requests our concurrence with your finding that the project "may affect, but is not likely to adversely affect" the bull trout (*Salvelinus confluentus*), designated critical habitat for the bull trout, and the marbled murrelet (*Brachyramphus marmoratus*). This request was submitted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

According to the BE, the Port is proposing to conduct pile replacement activities at 12 wharf/dock structures located on the Sittcum, Blair, and Hylebos waterways within the marine waters of Commencement Bay in Tacoma, Washington (Figure 1). The proposed project includes the replacement of up to 200 damaged or broken fender and/or structural piles annually as needed, along with associated pile caps, chocks, and whalers. The project duration is five years (through 2017). Eleven of the 12 facilities where pile replacement will be conducted are located within the Sittcum, Blair, and Hylebos waterways, which are busy industrial shipping channels. The last site, the Trident facility (site 7 in Figure 1), is located within the waters of Commencement Bay at the mouth of the Hylebos Waterway.

The piles being replaced include a combination of load-bearing structural piles and fender piles. Most of the existing piles are wood treated with creosote or ammoniacal copper zinc arsenate (ACZA), but some are concrete. Both types of wood piling will be replaced with ACZA-treated wooden piles of a similar size and diameter. Concrete pilings will be replaced with concrete

piles of a similar size and diameter. The largest concrete piles that would be replaced will be 24 inches in diameter. Most of the piles to be replaced are less than 18 inches in diameter, and it is estimated that no more than 4 concrete piles with diameters 18 inches or greater will be replaced in a single year.

Existing piles will be removed with a vibratory hammer or by pulling with a choke chain. Piles that break during extraction will be cut off three feet below the mudline and the holes will be capped with clean sand. Most of the new piles will be installed using a vibratory hammer. However, some new pilings may need to be proofed with an impact hammer and, in some instances, it may be necessary to use an impact hammer for the entire installation.

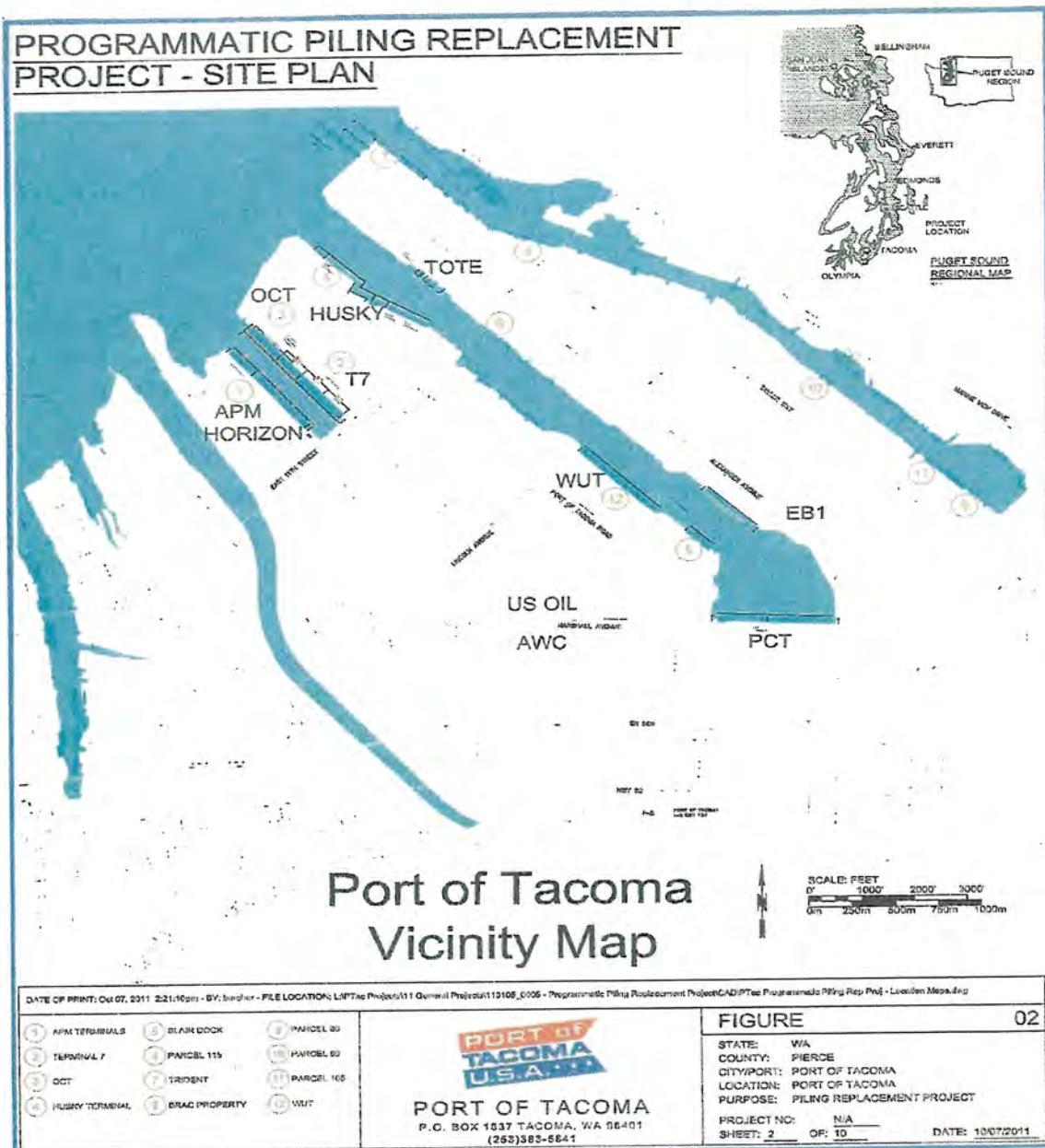


Figure 1. Piling Replacement Site Plan

Once the pile has been removed and the new pile installed, the overwater portions of the work will be completed. Chocks and whalers will be repaired as necessary to restore the fendering systems to their design capabilities. Pile caps, where present, will be repaired or replaced as necessary. Fender piles will have a rub strip of either ultra-high molecular weight or high-density polyethylene plastic lag-screwed to their outer faces to prevent frictional loss of treated wood during berthing operations. All of these activities will typically occur above the Mean Higher High Water (MHHW) mark.

Some of the conservation measures to reduce, eliminate, or minimize the effects of the proposed action to listed species and critical habitat are listed below:

- Pile removal and installation will be conducted during the approved in-water work window for Commencement Bay (July 16 to February 15 of each year).
- Upon advance notice, the Port will provide access to the work site to representatives from the U.S. Army Corps of Engineers (Corps), the U.S. Fish and Wildlife Service (Service), Washington Department of Ecology, and the Washington State Department of Fish and Wildlife during all hours when the proposed action is being conducted.
- No stockpiling or staging of materials will occur below the MHHW mark of any waterbody.
- All areas for fuel storage and refueling and servicing of construction equipment and vehicles will be located 150 ft from open water or wetlands, with the exception of refueling of barge derricks, which may need to be refueled and serviced while on the water.
- The Port will report annually to the Corps and the Service with a Port of Tacoma Piling Replacement Program Compliance Form (Appendix A) that includes the following information: 1) the number of piles replaced in each waterway, and 2) the linear feet in which piles were replaced in each waterway.
- Holes left when removing piles will be capped with clean sand. Any sand used as fill material will be washed and cleaned prior to being brought to the site, and will be obtained from an approved source.
- Only ACZA-treated wood will be used and treatment will comply with the Western Wood Preservers Institute best management practices.
- During removal of creosote-treated piles, containment booms and absorbent sausage booms (or other oil-absorbent fabric) will be placed around the perimeter of the work area to capture wood debris, oil, and other materials released into marine waters. All accumulated debris will be collected daily and disposed of at an approved upland site.
- At least two oil-absorbing floating booms, appropriate for the size of the work area, will be available on site whenever heavy equipment operates within 150 ft of open water and there is a potential for hazardous materials to enter surface waters. The booms will be stored in a location that facilitates their immediate deployment in the event of a spill.

- Existing piles will either be 1) fully extracted or 2) cut 3 ft below the mud line. If piles cannot be fully extracted or cut below the mud line, they may be cut at or near the mudline and then driven to a depth of 3 feet below the mud line. The cutting of piles that have broken will take place utilizing a diver with a chainsaw.

Based on the information provided, we have concluded that effects to the federally listed bull trout, marbled murrelet and designated critical habitat for the bull trout would be insignificant or discountable. Therefore, we concur with your "may affect, not likely to adversely affect" determination for these species and bull trout critical habitat. Our conclusion is based on the following rationale.

Bull trout

The closest population of bull trout is in the Puyallup River, which empties into Commencement Bay on the west side of the industrial waterfront. Anadromous and fluvial bull trout use the lower reaches of the Puyallup, Carbon, and White Rivers for foraging and overwintering, while the anadromous form also uses Commencement Bay and nearshore marine areas of Puget Sound seasonally for foraging and to migrate between core areas. Bull trout use of marine areas is highest in the spring and they have been documented in Commencement Bay during the months of April, May, and June. The urban and industrial waterfront of Tacoma and the action area has been highly altered and does not provide good fish habitat, as is evident by the low numbers of native char that have been documented during sampling efforts by the Puyallup Tribe and others (Ratte and Salo 1985). However, bull trout likely pass through the action area to forage on juvenile salmonids, Pacific herring (*Clupea pallasi*), Pacific sand lance (*Ammodytes hexapterus*), and surf smelt (*Hypomesus pretiosus*) that use the nearshore areas of Commencement Bay, the Tacoma Narrows and Dalco Passage.

A number of conservation measures, including implementation of the approved in-water work window (July 16 to February 15), will greatly minimize the likelihood for exposure of bull trout to construction-related effects.

- Although the proposed action may result in increased turbidity during construction, impacts to water quality will be localized, short in duration, and will occur during the time of year when bull trout are least likely to be present. If they are present, the amount of turbidity generated is anticipated to be minimal due to the conservation measures that will be implemented. Therefore, direct effects to bull trout due to increased construction-related turbidity (pile replacement) are considered insignificant.
- In the "Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving" (Fisheries Hydroacoustic Working Group, 2008) the Federal Highway Administration and Federal Agencies, including the Service, identified threshold criteria where harm or injury to fish could occur. The dual criteria injury threshold established by the agencies gives an upper sound pressure level of 206 dB (re: 1 μ Pa) peak and 187 dB (re: 1 μ Pa·sec) accumulated sound exposure level (SEL) for fish weighing more than 2 grams. The SEL for fish weighing less than 2 grams is 183 dB (re: 1 μ Pa·sec).

Data published by the Washington State Department of Transportation (WSDOT) and Caltrans indicates that impact installation of timber piles can produce underwater sound pressure levels up to 191 dB (re: $1\mu\text{Pa}\cdot\text{sec}$) peak and 160 dB (re: $1\mu\text{Pa}\cdot\text{sec}$) SEL (WSDOT 2012). Carlson et al. conducted hydroacoustic monitoring during impact installation of wood piles and found that impact installation of 12-inch diameter wood piles can result in Sound Pressure Levels (SPL) up to 195 dB_{peak}. The WSDOT data indicates that impact installation of 24 inch diameter concrete piles produces single strike sound pressure levels up to 192 dB (re: $1\mu\text{Pa}\cdot\text{sec}$) peak and 174 dB (re: $1\mu\text{Pa}\cdot\text{sec}$) SEL.

To consider the area potentially affected by underwater sound exceeding the established dual criteria injury threshold for the proposed project, the Corps used the practical spreading model for moving fish. In this analysis the Corps assumed: (1) a transmission loss constant of 15; (2) 400 strikes per day; and (3) reference sound data from WSDOT (2012) for single strikes of 24-inch concrete piles. To determine the area in which driving 24-inch concrete piles could exceed the dual criteria harm thresholds a value of 187 dB re: $1\mu\text{Pa}$ peak was used for calculating the area. Although the analysis indicates that the 187 dB re: $1\mu\text{Pa}$ accumulated SEL threshold for onset of physical injury would be exceeded within 250 ft of the pile driving site, we do not anticipate bull trout to be exposed due to the timing, location, short duration (less than five minutes per pile), and small area of effect.

Furthermore, the type and intensity of the underwater sounds produced depend on a variety of factors, including, but not limited to, the type and size of the pile, the firmness of the substrate and depth of water into which the pile is being driven, and the type and size of the pile-driving hammer. In general, driving steel piles with an impact hammer appears to generate pressure waves that are more harmful than those generated by impact-driving of concrete or wood piles, or by vibratory installation of any type of pile. SPLs associated with installation of concrete piles are characterized by a longer rise time than those of steel piles. Rise time appears to be an important factor in whether or not a sound pressure wave is likely to cause physical injury. To date, the Service is not aware of any situations where installation of concrete or wood piles has been shown to cause injury or mortality in aquatic organisms. As such, we do not expect that the SPLs associated with impact installation or proofing of concrete or wood piles to cause injury. The sound pressure waves from vibratory pile driving are much shallower and do not result in physical injury and less behavioral impacts. The sounds from vibratory pile drivers also differ in frequency and impulse energy which is the total energy content of the pressure wave. Most of the energy in the sounds produced by vibratory hammers are around 20 to 30 Hz, near the range of infrasound, which fish have been shown to avoid.

- The marine area that will be affected by the project is relatively small in relation to the overall available marine habitat in Puget Sound. The marine habitat and water quality within the action area, and specifically the Blair and Hylebos Waterways, are degraded. The action area is highly developed with overwater structures, armored shores, and contaminated sediments. The short-term elevated levels of turbidity and construction-related disturbance will not preclude use of the area by bull trout during or after project implementation.

- There are no documented Pacific herring, sand lance, or surf smelt spawning areas in the construction area and the project will not impact populations of salmonids or other prey resources. Therefore, indirect effects of the action on bull trout through their prey resources are considered discountable.

Given the timing, location and implementation of conservation measures for this project, effects to bull trout associated with exposure to elevated underwater sound pressure levels generated by pile driving are considered insignificant.

The final rule identified nine primary constituent elements (PCEs) essential for the conservation of bull trout. Five of the PCEs are located within designated critical habitat. The proposed action has the potential to affect the following Primary Constituent Elements (PCE) of bull trout critical habitat:

- PCE #2: Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent or seasonal barriers.

The proposed action may temporarily impact water quality as a result of suspended sediment or minor contaminant releases; however, impacts to the migratory corridor would be short-term and are not expected to measurably affect bull trout migration or movement through the area during or after construction. Periods of elevated levels of underwater sound during pile installation and removal would not preclude movement through the area or reduce the function of the migratory corridor. Furthermore, most of the project locations are in industrial waterways that are not linkages between core areas or corridors to the Puyallup River and have shown low presence of salmonids species. Therefore, effects to this PCE are considered to be insignificant.

- PCE #3: An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish. The proposed action may cause a short term reduction of benthic individuals that are prey for marine forage fish.

Because the waterways in the Port presently do not support marine forage fish spawning habitat and are not a migratory corridor for juvenile salmonids, impacts to the food web are not expected to be measurable. Therefore, effects to this PCE are considered insignificant.

- PCE #4: Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structures.

replacement sites are in areas where we do not anticipate marbled murrelets to be, the effects to foraging marbled murrelets associated with elevated sound levels are considered insignificant.

- The proposed action may result in the short term and localized re-suspension of minor amounts of sediment. However due to the relatively low concentrations and duration of exposure, the effects to marbled murrelets via their prey will not be measurable and are considered insignificant.

This concludes informal consultation pursuant to the regulations implementing the Endangered Species Act (50 CFR 402.13). This project should be re-analyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation. The project should also be re-analyzed if the action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this consultation, and/or a new species is listed or critical habitat is designated that may be affected by this project.

If you have any questions regarding this consultation, please contact Shandra O'Haleck at (360) 753-9533 or Martha Jensen at (360) 753-9000, of this office.

Sincerely,

Martha L. Jensen
for
Ken S. Berg, Manager
Washington Fish and Wildlife Office

Enclosure(s):

The proposed action does not include any activities that would alter marine shorelines in this area. The industrial area of the Port has been historically changed to support industrial facilities and does not presently contain complex shoreline features. Therefore, no effects are anticipated to this PCE.

- PCE #5: Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures that exceed the upper end of this range. Specific temperatures within this range will depend on bull trout life-history stage and form; geography; elevation; diurnal and seasonal variation; shading, such as that provided by riparian habitat; streamflow; and local groundwater influence.

The proposed action does not include any activities that would directly or indirectly alter water temperature. Therefore, no effects are anticipated to this PCE.

- PCE #8: Sufficient water quality and quantity such that normal reproduction, growth and survival are not inhibited.

While the proposed project has a slight potential to affect water quality through sediment releases, the effects will be localized and temporary and are not expected to measurably affect water quality. Therefore, overall effects to this PCE are considered insignificant.

Marbled Murrelet

Marbled murrelets forage in the nearshore areas of the Puget Sound and have been documented off Browns Point. Based on the survey data, marbled murrelet densities in southern Puget Sound are much lower than other areas of the Sound and outer coast. Habitat conditions and foraging opportunities are poor in the industrial waterfront of Tacoma (including the action area) and marbled murrelets are not expected to spend much time in the vicinity of the commercial waterfront, especially during construction. Although marbled murrelets could be present in Commencement Bay at any time of year, effects to murrelets are considered insignificant or discountable because:

- There is no suitable marbled murrelet nesting habitat within 0.25 mile of the action area. Effects to nesting marbled murrelets are considered discountable because the project will not affect suitable nesting habitat or generate sound above ambient background levels in forested areas that could be used by marbled murrelets for nesting.
- Because there are little or no good foraging opportunities in the industrial waterways and noise and vessel traffic is high in and along the heavily developed waterfront, it is extremely unlikely that marbled murrelets would be present in the project areas.
- Driving concrete and wood piles of the size and type used in the proposed project may produce sound pressure levels that could disturb marbled murrelets. However, most of the project locations are in areas where elevated sound levels would not extend into Commencement Bay or areas where marbled murrelets may be foraging (Figure 1). Because the duration of pile driving is relatively short and the locations of the pile

Literature Cited

Fisheries Hydroacoustic Working Group (FHWG)2008. Agreement in principle for interim criteria for injury to fish from pile driving activities. Memorandum of agreement between NOAA Fisheries Northwest and Southwest Regions, USFWS Regions 1 and 8, California/Washington/Oregon Departments of Transportation, California Department of Fish and Game, and U.S. Federal Highway Administration. Available at: June 12, 2008. <http://www.wsdot.wa.gov/Environment/Biology/BA/default.htm#Noise>.

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Strategic Environmental Consulting (SEC) 2005. Monitoring the Effects of Conventional Pile Driving on Three Species of Fish. Prepared for Manson Construction company. Richmond, California.

Stadler, John H.(2003). The Adverse Effects to Fishes of Pile-Driving - The Implications for ESA and EFH Consultations in the Pacific Northwest. UC Davis: John Muir Institute of the Environment. Retrieved from: <http://www.escholarship.org/uc/item/7bx541gm>

Washington State Department of Transportation (WSDOT) 2012. Pile diameters /single strike sound levels. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/A3B6FF43-DC7B-4D98-9228-C8764635587A/0/BA_PileDiameterNoiseLevels.pdf



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

Refer to NMFS No:
2012/00218

July 12, 2012

Michelle Walker
Chief, Regulatory Branch
U.S. Army Corps of Engineers, Seattle District
CENSW-OD-RG
Post Office Box 3755
Seattle, Washington 98124-3755

RECEIVED

JUL 18 2012

REGULATORY

Re: Endangered Species Act Section 7 Concurrence Letter and Magnuson-Stevens Essential Fish Habitat Response for the Port of Tacoma Pile Replacement Programmatic, Commencement Bay, COE No. NWS-2011-00218-WRD, (Pierce County, Washington, Fourth Field HUC 17110019 Puget Sound)

Dear Ms. Walker

On January 26, 2012 the National Marine Fisheries Service (NMFS) received a request from the U.S. Army Corps of Engineers (COE) for a written concurrence that the proposed multi-year replacement of piles at the Port of Tacoma (Port) is not likely to adversely affect (NLAA) the species and critical habitat listed in Table 1. This consultation is conducted under section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. 1531, et seq.), and its implementing regulations, 50 CFR Part 402. NMFS initiated consultation on January 30, 2012. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.¹

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Act (MSA), including conservation measures and any determination that you made regarding the potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation.² In this case, NMFS concluded that the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.

¹ Memorandum from D. Robert Lohn, Regional Administrator, to ESA consultation biologists (guidance on informal consultation and preparation of letters of concurrence) (January 30, 2006).

² Memorandum from William T. Hogarth, Acting Administrator for Fisheries, to Regional Administrators (national finding for use of Endangered Species Act section 7 consultation process to complete essential fish habitat consultations) (February 28, 2001).



This letter is in compliance with section 515 of the Treasury and General Government Appropriations Act of 2001 (Data Quality Act) (44 U.S.C. 3504 (d) (1) and 3516), and underwent pre-dissemination review using standards for utility, integrity and objectivity.

Table 1. Federal Register notices for final rules that list threatened and endangered species, designate CHs, or apply protective regulations to listed species considered in this consultation.

Species & [Service Jurisdiction]	ESU or DPS	Listing Status	Listing Status Reaffirmed	Critical Habitat	Protective Regulations
Chinook salmon (<i>Oncorhynchus tshawytscha</i>) [NMFS]	Puget Sound	6/28/05 70 FR 37160 Threatened	8/15/11 76FR50448 Threatened	9/02/05 70 FR 52630	6/28/05 70 FR 37160
steelhead (<i>O. mykiss</i>) [NMFS]	Puget Sound	5/11/07 72FR26722 Threatened	8/15/11 76FR50448 Threatened	In development	9/25/08 73 FR 55451
yelloweye rockfish (<i>Sebastodes ruberrimus</i>) [NMFS]	PS/Georgian Basins	4/28/2010 72 FR 2276 Threatened	Not applicable	In development	In development
canary rockfish (<i>S. pinniger</i>) [NMFS]	PS/Georgian Basins	4/28/2010 72 FR 2276 Threatened	Not applicable	In development	In development
bocaccio (<i>S. paucispinus</i>) [NMFS]	PS/Georgian Basins	4/28/2010 72 FR 2276 Endangered	Not applicable	In development	Not applicable to endangered listings, ESA Section 9 applies
killer whales (<i>Orcinus orca</i>) [NMFS]	Southern Resident	11/18/05 70 FR 69903 Endangered	3/8/11	11/29/2006 71 FR 69054	Not applicable to endangered listings; ESA Section 9 applies
Steller sea lion (<i>Eumetopias jubatus</i>) [NMFS]	Eastern DPS	11/26/90 55 FR 49204 Threatened	5/05/97 62 FR 24345	Not applicable	3/05/08 73 FR 11872
humpback whale (<i>Megaptera novaeangliae</i>) [NMFS]		12/02/70 35 FR 18319 Endangered		Not applicable	ESA section 9 applies

Consultation History

The US Army Corps of Engineers (COE) submitted a Biological Evaluation (BE) and Memorandum for Services to the National Marine Fisheries Service (NMFS) for the project referenced above on January 26, 2012. A meeting between the Port and the NMFS was held on February 27, 2012 where additional information was requested concerning sound analysis for marine mammals. Additional information was received on April 6, 2012, and April 13, 2012.

A complete record of this consultation is on file at the Washington State Habitat Office in Lacey, Washington.

Description of the Proposed Action and the Action Area

The Port is proposing to conduct pile replacement activities over five years at 12 wharf/dock structures located in the Sitzum, Blair, and Hylebos waterways, and in the inner marine waters of Commencement Bay in Tacoma, Washington (Figure 1). The proposed project includes the replacement of up to 200 damaged or broken fender and/or structural piling annually as needed, along with associated pile caps, chocks, and whalers. Eleven of the 12 facilities where pile replacement will be conducted are located within the Sitzum, Blair, and Hylebos waterways, which are busy industrial shipping channels. One additional site, the Trident facility, is located within the waters of Commencement Bay at the mouth of the Hylebos Waterway.

The piles being replaced include a combination of load-bearing structural piles and fender piles. Most of the piles are wood treated with creosote or ammoniacal copper zinc arsenate (ACZA), but some are concrete. Both types of wood piling will be replaced with ACZA-treated wooden piling of a similar size and diameter. Concrete piling will be replaced with concrete piling of a similar size and diameter. The largest concrete piling to be replaced will be 24 inches in diameter. Most of the pilings to be replaced are less than 18 inches in diameter, and it is estimated that no more than 4 concrete pilings with diameters 18 inches or greater will be replaced in a single year.

Pilings will be removed with a vibratory hammer or by pulling with a choke chain. Pilings that break during extraction will be cut off three feet below the mudline and capped with clean sand. Most new pilings will be installed with a vibratory hammer. However, some new pilings may need to be proofed with an impact hammer and, in some instances, it may be necessary to use an impact hammer for the entire installation.

Once the pile has been removed and the new pile installed, the overwater portions of the work will be completed. Chocks and whalers will be repaired as necessary to restore the fendering systems to their design capabilities. Pile caps, where present, will be repaired or replaced as necessary. Fender pilings will have a rub strip of either ultra-high molecular weight (UHMW) or high-density polyethylene (HDPE) plastic lag-screwed to their outer faces to prevent frictional loss of treated wood during berthing operations. All of these activities will typically occur above the OHWM of the waterways.

Some of the conservation measures to reduce, eliminate, or minimize the effects of the proposed action to listed species or habitat are listed below.

- Pile removal and installation will be conducted during the approved in-water work window for Commencement Bay (July 16–February 14 of each year).
- Upon advance notice, the Port will provide access to the work site to representatives from the COE, the Services, Washington Department of Ecology, and Washington State Department of Fish and Wildlife during all hours when the proposed action is being conducted.
- No stockpiling or staging of materials will occur below the mean higher high water mark of any waterbody.

- All areas for fuel storage and refueling and servicing of construction equipment and vehicles will be located 150 feet from open water or wetlands, with the exception of refueling of barge derricks, which may need to be refueled and serviced while in the water.
- The Port will report annually to the COE and the Services with a Compliance Form (appendix) that includes the following information: 1) the number of piles replaced in each waterway, and 2) the linear feet in which piles were replaced in each waterway.
- Holes left when removing piling will be capped with clean sand. Any sand used as fill material will be washed and cleaned prior to being brought to the site, and will be obtained from a commercial source that is operating within compliance with the ESA.
- Only ACZA-treated wood will be used and treatment will comply with the Western Wood Preservers Institute BMPs.
- During removal of creosote-treated piles, containment booms and absorbent sausage booms (or other oil-absorbent fabric) will be placed around the perimeter of the work area to capture wood debris, oil, and other materials released into marine waters. All accumulated debris will be collected daily and disposed of at an approved upland site.
- At least two oil-absorbing floating booms, appropriate for the size of the work area, will be available on site whenever heavy equipment operates within 150 feet of open water and there is a potential for hazardous materials to enter surface waters. The booms will be stored in a location that facilitates their immediate deployment in the event of a spill.
- Existing piles will either be 1) fully extracted or 2) cut 3 feet below the mudline. If piles cannot be fully extracted or cut below the mudline, they may be cut at or near the mudline and then driven to a depth of 3 feet below the mudline.
- Work performed in or within 25 feet of an existing or previously designated Superfund site, or Washington State Model Toxics Control Act (MTCA) site, will follow BMPs established by the EPA during CERCLA coordination or Ecology during MTCA.

A marine mammal monitoring plan will be implemented between October 1 and February 14 at sites 1-4 and site 7 (see Figure 1) during pile installation and removal activities to avoid impacts to ESA-listed marine mammals.

The action area is located in the industrial portion of Commencement Bay and encompasses three waterways; the Sircum, Blair, and Hylebos. There is little to no aquatic vegetation in the project area. The shoreline in the action area is bulkheaded, covered with industrial over water structures, and has been dredged to achieve navigational depths.

The action area encompasses a radius of 4,642 meters (or 2.8 miles) from the pile driving location to account for any possible sound effects from pile driving to marine mammals. This is the maximum area where in-water noise will be elevated above the disturbance threshold level for marine mammals. The area of potential effect from underwater noise to fish created by pile driving is substantially smaller (15 meters or 45 feet) and is therefore contained within this action area.

Effects of the Action

For purposes of the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is NLAA listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial.³ Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur.

The effects of the proposed action are reasonably likely to include temporarily impaired water quality within the action area, including temporarily elevated turbidity levels and temporarily elevated underwater noise levels during pile removal and installation. Construction would take place between July 16 and February 15 when ESA species are least likely to be in the area.

³ U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. Endangered Species Act consultation handbook: procedures for conducting section 7 consultations and conferences. March. Final. P. 3-12.

PROGRAMMATIC PILING REPLACEMENT PROJECT - SITE PLAN

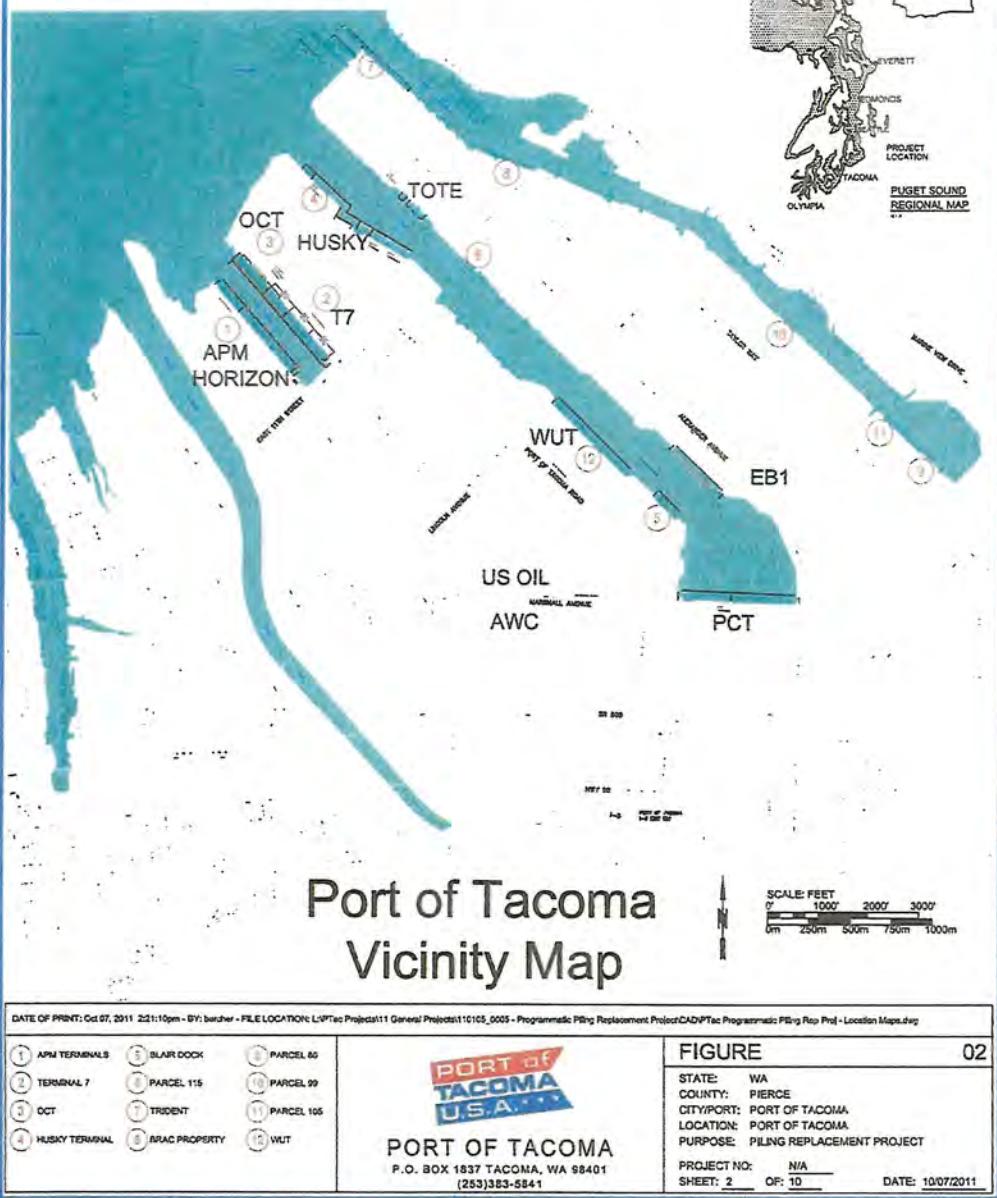


Figure 1. Port of Tacoma Pile Replacement Site Plan

Puget Sound Chinook, Steelhead, and Rockfish

Turbidity and suspended sediments

Pile driving and removal, and associated vessel use (barge mounted pile driver) can alter water quality conditions that could elicit short-term, localized, and temporary behavioral effects in juveniles. In the absence of data on the specific effects of suspended sediments on rockfish, potentially harmful effects associated with elevated suspended sediments can be assumed to be

similar to salmonids, which are among the most sensitive species for which effects from suspended sediments have been evaluated in estuarine dependent species (Wilber and Clarke 2001). No difference in the response to suspended sediments is anticipated among PS Chinook or PS steelhead.

The effects of suspended sediment on fish increases in severity with suspended sediment concentration and exposure time and can progressively include behavioral avoidance and/or disorientation, physiological stress (e.g., coughing), gill abrasion, and death—at extremely high concentrations. Studies show that salmonids have an ability to detect and distinguish turbidity and other water quality gradients (Quinn 1988, Simenstad 1988), and that larger juvenile salmonids are more tolerant to suspended sediment than smaller juveniles (Servizi and Martens 1991). To this end, Newcombe and Jensen (1996) analyzed numerous reports on documented fish responses to suspended sediment in streams and estuaries, and developed a 14-point ‘scale of ill effects’ algorithm based on sediment concentration and duration of exposure. NMFS has used this model to gauge the potential for ill effects from suspended sediment exposure in Section 7 ESA consultations, by assuming certain exposure durations and concentrations as available from the literature or from past project monitoring. If the model projects a score of 5 or less on the Newcombe and Jensen scale (i.e., Total Suspended Solids (TSS) exposure may lead to an avoidance response with possible short term reduction in feeding [level 4] and minor physiological stress for [level 5]), then NMFS considers such exposures insignificant and within the environmental baseline of exposure typically experienced by the species.

Few data exist regarding the temporary increase in suspended sediment associated with pile removal or pile driving. Indeed, NMFS could find no data relating to suspended sediment concentrations generated from impact pile driving. To estimate the magnitude of suspended sediment associated with pile driving, NMFS reviewed results from a vibratory pile removal project near the mouth of Jimmycomelately Creek in Sequim Bay (Weston Solutions 2006). In that study, total suspended solid (TSS) concentrations associated with activation of the vibratory hammer to loosen the pile from the substrate ranged from 13 to 42 milligrams per liter (mg/L) and averaged 25 mg/L. During the pile driving, elevated levels of TSS averaging 40 mg/L were recorded near the pile and 26 mg/L at the sensor located 16 to 33 feet from the pile. Concentrations during extraction ranged from 20 to 82.9 mg/L, and were sometimes visible in the water column as a 10- to 16-foot diameter plume that extended at least 15 to 20 feet from the actual pulling event. Although concentrations decreased after pile extraction, the time interval was unavailable due to tug movement as soon as the pile cleared the water’s surface.

To consider how the TSS generated from impact pile removal and placement within Commencement Bay might affect PS Chinook salmon, PS steelhead and rockfish larvae NMFS used the Weston (2006) data as an estimate for the range of expected TSS and the Newcombe and Jensen (1996) ‘scale of ill effects’ to determine likely associated biological responses. For an exposure duration of up to fifteen hours and an increase in TSS over background of up to 90 mg/L, the calculated severity of ill effect for juvenile salmon does not exceed a response of minor physiological stress [level 5] (increased in rate of coughing, increased respiration rate). The maximum increase in TSS reported in Weston Solutions (2006) is 83 mg/L. These data illustrate that the duration and concentration of TSS from the proposed action will be below levels that would be reasonably likely to result in take. Further, any elevations in turbidity and TSS

generated by the impact pile driving will be localized, short-term and similar to the variations that occur normally within the environmental baseline of the marine nearshore—which is regularly subject to strong winds and currents that generate suspended sediments. Thus, juvenile Chinook salmon, steelhead, and rockfish larvae likely encounter similar suspended sediment concentrations and turbidity levels within the environmental baseline to which they are regularly exposed.

In summary, the low level increase in suspended sediments, small action area, and expected return to pre-construction conditions shortly following the cessation of activity renders the effects of the increased TSS on PS Chinook, PS steelhead and ESA-listed rockfish larvae insignificant.

Underwater Sound

Little information is available on the effects of underwater sound on rockfish (Hastings and Popper 2005). However, all fish with swimbladders, which includes rockfish and salmonids, are potentially affected by underwater sound, which can cause barotrauma and associated injuries at high levels. In the "Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving" (Fisheries Hydroacoustic Working Group, 2008) the Federal Highway Administration and Federal Agencies including NMFS agreed upon threshold criteria where harm or injury to fish may occur. The dual criteria injury threshold established by the Agencies gives an upper sound pressure level of 206 dB (re: 1 μ Pa) peak and 187 dB (re: 1 μ Pa·sec) accumulated sound exposure level (SEL) for all listed fish weighing more than 2 grams. The SEL for listed fish weighing less than 2 grams is 183 dB (re: 1 μ Pa·sec).

Data published by the Washington State Department of Transportation (WSDOT) and Caltrans indicates that impact installation of timber piles can produce underwater sound pressure levels up to 191 dB (re: 1 μ Pa·sec) peak and 160 dB (re: 1 μ Pa·sec) SEL (WSDOT 2012). Carlson et al. conducted hydroacoustic monitoring during impact installation of wood piles and found that impact installation of 12-inch diameter wood piles can result in SPLs up to 195 dB_{peak}. The WSDOT data indicates that impact installation of 24 inch diameter concrete piles produces single strike sound pressure levels up to 188 dB (re: 1 μ Pa·sec) peak and 166 dB (re: 1 μ Pa·sec) SEL.

To consider the area potentially affected by underwater sound exceeding the established dual criteria injury threshold for the proposed project, the Corps used the practical spreading model for moving fish. In this analysis the Corps assumed: (1) a transmission loss constant of 15; (2) 400 strikes per day; and (3) reference sound data from WSDOT (2012) for single strikes of 24-inch concrete piles. To determine the area in which driving 24-inch concrete piles could exceed the dual criteria harm thresholds a value of 187 dB re: 1 μ Pa peak for adult fish was used for calculating the area because it is unlikely that juveniles would be in the area during construction. Although the analysis indicates that the 187 dB re: 1 μ Pa accumulated SEL threshold for onset of physical injury would be exceeded within 45 feet of the pile driving site, we do not anticipate adult Chinook, steelhead, or rockfish to be exposed to potentially harmful sound levels due to the timing, location, short duration (less than five minutes per pile), and small area of effect. The industrial waterways do not support habitat for rockfish. Adult ESA-listed salmon species are

unlikely to utilize the waterways during their migration to spawning grounds in the upper reaches of the Puyallup River and no pile driving would be covered under this programmatic in the river. Further, in the unlikely event of waterway use by adult salmonids, fish of this size and swimming ability have the capacity to rapidly move out of the small zone of potential injury from underwater noise without increasing their potential for take from other mechanisms (e.g., predation).

Furthermore, the type and intensity of the underwater sounds produced depends on a variety of factors, including, but not limited to, the type and size of the pile, the firmness of the substrate and depth of water into which the pile is being driven, and the type and size of the pile-driving hammer. In general, driving steel piles with an impact hammer appears to generate pressure waves that are more harmful than those generated by impact-driving of concrete or wood piles, or by vibratory installation of any type of pile. SPLs associated with installation of concrete piles are characterized by a longer rise time than those of steel piles. Rise time appears to be an important factor in whether or not a sound pressure wave is likely to cause physical injury. To date, the NMFS is not aware of any situations where installation of concrete or wood piles has been shown to cause injury or mortality in aquatic organisms. As such, we do not expect that the SPLs associated with impact installation or proofing of concrete or wood piles to cause injury. The sound pressure waves from vibratory pile driving are much shallower and do not result in physical injury and less behavioral impacts. The sounds from vibratory pile drivers also differ in frequency and impulse energy which is the total energy content of the pressure wave. Most of the energy in the sounds produced by vibratory hammers are around 20 to 30 Hz, near the range of infrasound, which fish have been shown to avoid.

Given the timing, location and implementation of conservation measures for this project, effects to ESA-listed PS Chinook salmon, PS steelhead, and/or PS-Georgia Basin rockfish larvae associated with exposure to elevated underwater sound pressure levels generated by pile driving are considered insignificant.

Southern Resident Killer Whales

The final rule listing Southern Resident killer whales as endangered identified several potential factors that may have contributed to their decline or may be limiting recovery. These include: quantity and quality of prey, toxic chemicals which accumulate in top predators, and disturbance from sound and vessel traffic. The rule also identified oil spills as a potential risk factor for this species. The final recovery plan includes more information on these potential threats to SR killer whales (73 FR 4176).

Southern Resident killer whales spend considerable time in the Georgia Basin from late spring to early autumn, with concentrated activity in the inland waters of Washington State around the San Juan Islands, and then move south into Puget Sound in early autumn. While these are seasonal patterns, Southern Resident killer whales have the potential to occur throughout their range (from Central California north to the Queen Charlotte Islands) at any time during the year.

The Whale Museum manages a long-term database of SR killer whale sightings and geospatial locations in inland waters of Washington.

A review of this dataset from the years 1990 to 2008 indicates that SR killer whales may occur near the project vicinity (both in Commencement Bay and adjacent waters) during the months that in-water activities are proposed (Table 2).

Table 2. SR Killer Whale Sightings near the Project Vicinity.

MONTH	NUMBER OF DAYS SIGHTED ¹
July	1
August	2
September	1
October	12
November	11
December	35
January	17
February	2

¹Unique sighting days during the work window from 1990 to 2008.

SR killer whales may be disturbed by sound pressure generated by in-water construction activities. The NMFS is currently developing comprehensive guidance on sound levels likely to cause injury and behavioral disruption in the context of the Marine Mammal Protection Act. Until formal guidance is available, NMFS uses conservative thresholds of sound pressure levels from broad band sounds that cause behavioral disturbance (160 dB rms (re: 1µPa) for impulse sound and 120 dB rms (re: 1µPa) for continuous sound) and injury (180 dB rms (re: 1µPa) for whales and 190 dB rms (re: 1µPa) for pinnipeds) (70 FR 1871).

Based on these conservative thresholds, the proposed pile installations will produce sound pressure levels that could disturb SR killer whales if they are present. Five sites have been identified as having potential to have sound levels above the disturbance threshold for marine mammals extend into Commencement Bay. These five sites are the APM Terminal, Terminal 7, Olympic Container Terminal (OCT), Husky Container Terminal, and Trident piers 24 and 25 (sites 1-4 and site 7 on Figure 1). For those five sites, the applicant has proposed to implement a marine mammal monitoring plan for this project during the portion of the in-water work window when ESA-listed marine mammals are likely to be present in the action area (October 1 to February 14). Under the plan, the applicant will monitor an area from the piling site out to the 120dB isopleth (4,642 meter radius or until land) because this is the maximum area where in-water noise will be elevated above the disturbance threshold level for marine mammals, and will not start work, or will cease work, if ESA-listed marine mammals are sighted in the monitored area.

Pile installation or removal will not initiate or will temporarily suspend if ESA-listed marine mammals are detected within the monitoring area. The monitoring plan makes it extremely unlikely, and therefore discountable, that Southern Resident killer whales will be exposed to sound pressure levels that could cause disturbance during project construction.

Vessels associated with the proposed construction are primarily tug/barge, which are slow moving, follow a predictable course, do not target whales, and should be easily detected by SR killer whales. Vessel strikes are extremely unlikely and any potential encounters with SR killer whales are expected to be sporadic and transitory in nature. Most of the sound pressure produced by a tug towing a loaded barge is expected to be below the level of peak hearing sensitivity for SR killer whales. When in motion, sound pressure levels from the tug will be transient and are therefore expected to be below background levels a short distance from any one location. Thus, tug/barge sound is unlikely to mask acoustic signals of biological significance to SR killer whales. The proposed action is not likely to adversely affect Chinook salmon (primary prey of SR killer whales) as discussed above and is not anticipated to have a measurable effect on prey quality.

Steller sea lions

Steller sea lions in Washington are from the eastern Distinct Populations Segment (DPS). For the past 25 to 30 years, the eastern DPS has grown steadily at about 3 percent per year. The final revised recovery plan (73 FR 11872) identifies no threats to the continued recovery of the eastern DPS. On April 18, 2012, NMFS issued a proposed rule to remove the eastern DPS of Steller sea lions from the List of Endangered and Threatened Wildlife (77 FR 23209). Nevertheless, NMFS evaluates whether the proposed action has the potential to affect Steller sea lions.

Steller sea lions can occur in Washington waters throughout the year; however, there are no breeding rookeries in Washington. Occurrence in inland waters of Washington is limited to primarily male and sub-adult Steller sea lions in fall, winter and spring months. Steller sea lions haul out in a variety of locations in coastal and inland waters of Washington. The closest Steller sea lion haulout is approximately 10 miles south of the action area near Days Island.

Steller sea lions are likely to occur in Puget Soundwaters during the in-water work window from October through February. In the event that Steller sea lions are present in the action area, implementation of the above referenced marine mammal monitoring plan makes it extremely unlikely, and therefore discountable, that Steller sea lions will be exposed to sound pressure levels that could cause disturbance. The proposed action is not likely to adversely affect salmonid prey as discussed above and is not anticipated to have a measurable effect on prey quality.

Humpback whales

The humpback whale was listed as endangered under the ESA on December 2, 1970 (35 FR 18319). The eastern North Pacific Stock, which includes humpback whales in the waters of Washington State, is generally located along coastal Central America during winter/spring, and migrates to the coast of California north to southern British Columbia during the summer. Although in recent years humpback whales have been sighted in the inside waters of Washington on a few occasions, including within Puget Sound (primarily during fall; Falcone et al. 2005), they are more common in coastal waters and remain extremely rare within the Puget Sound and have not been observed in or near industrial waterways.

As humpback whales are extremely unlikely to be present near the project; the potential for disturbance from pile driving and vessel activity to the species is considered discountable. In the unlikely event that humpback whales were in the vicinity of the project, implementation of the above referenced marine mammal monitoring plan also makes it extremely unlikely, and therefore discountable, that humpback whales will be exposed to sound pressure levels that could cause disturbance, as discussed above.

Critical Habitat Determination

Puget Sound Chinook Critical Habitat Determination

The NMFS designated critical habitat for the PS Chinook salmon Evolutionary Significant Unit (ESU) on September 2, 2005 (70 FR 52630). The primary constituent element (PCE) for the PS Chinook salmon ESU critical habitat in this action area is:

Nearshore marine areas free of obstruction and excessive predation with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation, and natural cover such as submerged and overhanging large wood, aquatic vegetation, etc.

Designated critical habitat boundaries within the action area for the proposed project include areas contiguous with the shoreline from the line of extreme high water out to a depth of 98 feet relative to mean lower low water. The NMFS analyzed the potential impacts of the project on this PCE and determined that the potential effects will be insignificant or discountable because:

1. The project will not result in a barrier to migration through the marine area as the proposed pile replacement is located within industrial areas that are not on the migration path to or from the Puyallup River. Effects to migratory habitat are expected to be discountable.
2. The proposed construction will not significantly alter the food base within the action area. Macro-invertebrate production and fish prey species will continue to be available from the surrounding habitat in the immediate area. In addition, no forage fish spawning is documented in the project area. Therefore, the project is not likely to reduce the abundance of prey species, and any effects would be insignificant.
3. While the proposed project has a slight potential to remobilize sediment during construction and alter water quality for several hours, the effects are expected to be local and temporary and not measurably affect water quality, and therefore, the effects are insignificant. In addition, any removal of existing treated wood is expected to improve long-term water quality in the immediate area.

Therefore, NMFS concurs with your “may affect, but not likely to adversely modify” determination for critical habitat for PS Chinook salmon.

Southern Resident Killer Whale Critical Habitat

Critical habitat includes approximately 2,560 square miles of Puget Sound, excluding areas with water less than 20 feet deep relative to extreme high water. The PCEs for SR killer whale critical habitat are:

- (1) Water quality to support growth and development; (2) prey species of sufficient quantity, quality, and availability to support individual growth, reproduction and development, as well as overall population growth; and (3) passage conditions to allow for migration, resting, and foraging.

The proposed project is not expected to have a measureable effect on water quality, but removal of treated wood piles will eliminate chemical leaching in the future. The low level increase in suspended sediments and turbidity as described above are not expected to affect SR killer whales or affect the water quality PCE, and the proposed conservation measures will ensure that the project does not result in contaminant releases. As described above the action is not likely to adversely affect salmonids, therefore, NMFS does not anticipate effects on quality or quantity of prey species in the action area, which includes designated critical habitat of SR killer whales. Additionally, the potential for vessels or sound from the proposed pile driving to interfere with SR killer whale passage is expected to be insignificant or discountable (i.e., any vessel disturbance will be short-term and localized with no lasting effects, and marine mammal monitoring will ensure disturbance does not occur).

Conclusion

Based on the above analyses, the NMFS concludes that all effects of the proposed action are NLAA for the subject ESA-listed species identified and the species-specific critical habitats as designated under the ESA.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the Federal agency, or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

Please direct questions regarding this letter to Jeff Fisher of the Lacey, Washington Habitat office at (360)534-9342 or jeff.fisher@noaa.gov.

Sincerely,



William W. Stelle, Jr.
Regional Administrator

cc: Olivia Romano, COE

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APPENDIX C.4

WDFW - Hydraulic Project

Approval 2021-6-79+01



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: February 23, 2021

Permit Number: 2021-6-79+01

Project End Date: February 15, 2026

FPA/Public Notice Number: N/A

Application ID: 24226

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
<p>Port of Tacoma ATTENTION: Jennifer Stebbings PO Box 1837 Tacoma, WA 98401-1837</p>	

Project Name: Programmatic Pile Repair/Replacement Project (renewal)

Project Description: Load-bearing and fender piles will be repaired and/or replaced on an as-needed basis to maintain the function and structural integrity of the various docks and marginal wharves within the Port of Tacoma. Most piles will be treated wood (creosote or ACZA); however, some piles may be concrete. The replacement piles will be of similar diameter to the damaged piles. The number of piling replaced at each given facility will vary annually depending on damage sustained over the preceding year. The replacement rates at each of the 15 sites included in this application will vary in a single year; however, no more than 200 treated timber piles will be replaced in a single year.

PROVISIONS

AUTHORIZED WORK TIMES

1. TIMING LIMITATION: To protect fish and shellfish habitats at the job site, work below the ordinary high water line must occur from July 15 and February 15 of any year.

2. APPROVED PLANS: Work must be accomplished per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled "NWS-2011-0089-WRD_ProgPile_JARPA_Figures_v2.pdf", uploaded to APPS on February 8, 2021, and "Cross Section Typical_FenderPileDemo.pdf", uploaded to APPS on February 9, 2021, except as modified by this Hydraulic Project Approval.

Approved actions covered by this permit are:

1. Replacement of up to 200 damaged or deteriorating piling annually in locations listed in the approved plans with new concrete, steel, untreated or ACZA-treated wood piling.

You must have a copy of these plans available on site during all phases of the project proposal.

NOTIFICATION

3. PRE- AND POST-CONSTRUCTION NOTIFICATION: You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work, and again within seven days after completing the work. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.

4. FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION: If a fish kill occurs or fish are observed in distress at the



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job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS AND EQUIPMENT

5. Establish the staging area (used for activities such as equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants like petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.
6. Clearly mark boundaries to establish the limit of work associated with site access and construction.
7. Confine the use of equipment to specific access and work corridor shown in the approved plans.
8. Check equipment daily for leaks and complete any required repairs before using the equipment in or near the water.
9. Lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols are recommended for use in equipment operated in or near water.
10. Operate vessels during tidal elevations that are adequate to prevent grounding of the barge.
11. Do not deploy anchors or spuds in seagrass or kelp.
12. Maintain anchor cable tension, set and retrieve anchors vertically, and prevent mooring cables from dragging to avoid impacts to seagrass and kelp.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

13. Prevent contaminants from the project, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.
14. Use tarps or other methods to prevent treated wood, sawdust, trimmings, drill shavings and other debris from contacting the bed or waters of the state.

CONSTRUCTION MATERIALS

15. To prevent leaching, construct forms to contain any wet concrete. Place impervious material over any exposed wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured.
16. Do not use wood treated with oil-type preservative (creosote, pentachlorophenol) in any hydraulic project. Wood treated with waterborne preservative chemicals (ACZA, ACQ) may be used if the Western Wood Preservers Institute has approved the waterborne chemical for use in the aquatic environment. The manufacturer must follow the Western Wood Preservers Institute guidelines and the best management practices to minimize the preservative migrating from treated wood into aquatic environments. To minimize leaching, wood treated with a preservative by someone other than a manufacturer must follow the field treating guidelines. These guidelines and best management practices are available at www.wwpinstiute.org.

PILE REMOVAL, DRIVING

17. Remove the existing piling and dispose of them in an upland area above extreme high tide waters.
18. As specified in the approved plans, the replacement pilings must be similarly sized (as removed) diameter steel, concrete, untreated or Chemonite (ACZA) treated wood pilings.
19. Attach rubbing strips made of ultra high molecular weight (UHMW) type plastic, or high density polyethylene (HDPE) type plastic to the replacement fender system. Do not use rubber tires for the fender system.



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20. Fit all pilings with devices to prevent perching by fish-eating birds.

21. The use of both a vibratory and/or an impact hammer is authorized for piling installation under this Hydraulic Project Approval, however a vibratory driver is preferred.

22. Sound attenuation methods are required for the driving or proofing of steel piles with an impact hammer below the ordinary high water line. For impact driving of steel piles that exceed the following criteria, a bubble curtain or other Washington Department of Fish and Wildlife approved sound attenuation device must be used. The specific criteria include sound pressure levels of:

- a) Greater than or equal to 206 dB (one micropascal squared per second) peak,
- b) Greater than or equal to 187 dB (one micropascal squared per second) accumulated sound exposure level (SEL) for fish greater than or equal to 2 grams, and
- c) Greater than or equal to 183 dB (one micropascal squared per second) (SEL) for fish less than 2 grams.
- d) Install a bubble curtain around the pile during all driving operations to ensure proper sound attenuation. The bubble curtain must distribute air bubbles around 100 percent of the perimeter of the piling over the full length of the pile in the water column.

23. Use appropriate sound attenuation when driving or proofing steel piling with an impact hammer.

- a. For driving or proofing steel piling, 10 inches in diameter or less, install a 6 inch thick wood block, plastic or rubber between the piling and the impact hammer during impact pile driving operations or install a pile sleeve or bubble curtain around the piling during impact pile driving operations that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column.
- b. For driving or proofing steel piling greater than 10 inches in diameter, install a bubble curtain around the pile during piling impact driving operations that distributes air bubbles around 100% of the perimeter of the piling over the full depth of the water column.

24. To avoid attracting fish to light at night, limit impact pile driving to daylight hours whenever feasible.

25. Piling removal:

- a. Vibratory or water jet extraction is the preferred method of pile removal.
- b. Place the piling on a construction barge or other dry storage site after the piling is removed. The piling must not be shaken, hosed off, left hanging to dry or any other action intended to clean or remove adhering material from the piling near waters of the state.
- c. If a treated wood piling breaks during extraction, remove the stump from the water column by fully extracting. If the stump cannot be fully extracted, remove the remainder of the stump with a clamshell bucket, chain, or similar means, or cut it off three feet below the mudline. Cap all buried cut stumps and fill holes left by piling extraction with clean sand.
- d. When removing creosote piling, containment booms and absorbent booms (or other oil absorbent fabric) must be placed around the perimeter of the work area to capture wood debris, oil, and other materials released into marine waters as a result of construction activities to remove creosote pilings. All debris on the bed and accumulated in containments structures must be collected and disposed upland at an approved disposal site.

DEMOBILIZATION/CLEANUP

26. Remove all trash and unauthorized fill in the project area, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, floating debris, and paper, that is waterward of the ordinary high water line and deposit upland.

27. Do not burn wood, trash, waste, or other deleterious materials waterward of the ordinary high water line.

NOTES

NOTE: Ordinary High Water Line is defined as 'the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in ordinary years as to mark upon the soil or vegetation a character distinct from the abutting upland. Provided, that in any area where the ordinary high water line cannot be found, the ordinary high water line adjoining



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saltwater is the line of mean higher high water and the ordinary high water line adjoining fresh water is the elevation of the mean annual flood (Revised Code of Washington, RCW 77.55.011(16); Washington Administrative Code, WAC 220-660-030(108)).

LOCATION #1:	Site Name: West Sitzum Terminal - 1002 Milwaukee Way 1002 Milwaukee Way, Tacoma, WA 98421					
WORK START:	March 15, 2021			WORK END:	February 15, 2026	
WRIA	<u>Waterbody:</u>				<u>Tributary to:</u>	
10 - Puyallup - White	Wria 10 Marine					
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
NW 1/4	34	21 N	03 E	47.2678	-122.4168	Pierce
<u>Location #1 Driving Directions</u>						

From I-5:

Take exit 136 for Port of Tacoma Road, turn north

Turn west (left) onto E 11th Street

Turn right onto Milwaukee Way to arrive at terminal main gate.

LOCATION #2:	Site Name: Terminal 7 A/B 2209 East 11th Street, Tacoma, WA 98421					
WORK START:	March 15, 2021			WORK END:	February 15, 2026	
WRIA	<u>Waterbody:</u>				<u>Tributary to:</u>	
10 - Puyallup - White	Wria 10 Marine					
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
N 1/2	34	21 N	03 E	47.2672	-122.4134	Pierce
<u>Location #2 Driving Directions</u>						

From I-5:

Take exit 136 for Port of Tacoma Road, turn north

Follow Port of Tacoma Road until you reach main gate

LOCATION #3:	Site Name: East Sitzum Terminal 710 Port of Tacoma Road, Tacoma, WA 98421					
WORK START:	March 15, 2021			WORK END:	February 15, 2026	
WRIA	<u>Waterbody:</u>				<u>Tributary to:</u>	
10 - Puyallup - White	Wria 10 Marine					
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>



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NW 1/4	34	21 N	03 E	47.26842	-122.4150	Pierce
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Location #3 Driving Directions

From I-5:

Take exit 136 for Port of Tacoma Road, turn north
Follow Port of Tacoma Road until main gate

LOCATION #4:	Site Name: Husky Terminal 1101 Port of Tacoma Road, Tacoma, WA 98421
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WORK START:	March 15, 2021	WORK END:	February 15, 2026
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<u>WRIA</u>	<u>Waterbody:</u>	<u>Tributary to:</u>
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10 - Puyallup - White	Wria 10 Marine
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<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
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S 1/2	28	21 N	03 E	47.2743	-122.4102	Pierce
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<u>Location #4 Driving Directions</u>		
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From I-5:

Take exit 136 for Port of Tacoma Road, turn north
Follow Port of Tacoma Road to E 11th Street
Turn right to enter facility

LOCATION #5:	Site Name: Washington United Terminal (WUT) 1815 Port of Tacoma Road, Tacoma, WA 98421
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WORK START:	March 15, 2021	WORK END:	February 15, 2026
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<u>WRIA</u>	<u>Waterbody:</u>	<u>Tributary to:</u>
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10 - Puyallup - White	Wria 10 Marine
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<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
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S 1/2	35	21 N	03 E	47.2630	-122.3907	Pierce
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<u>Location #5 Driving Directions</u>		
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From I-5:

Take exit 136 for Port of Tacoma Road, turn north
Turn right after intersection with Lincoln Avenue to enter facility

LOCATION #6:	Site Name: Blair Dock 2421 Port of Tacoma Road, Tacoma, WA 98421
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WORK START:	March 15, 2021	WORK END:	February 15, 2026
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<u>WRIA</u>	<u>Waterbody:</u>	<u>Tributary to:</u>
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10 - Puyallup - White	Wria 10 Marine
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Washington Department of
FISH and WILDLIFE

HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: February 23, 2021

Permit Number: 2021-6-79+01

Project End Date: February 15, 2026

FPA/Public Notice Number: N/A

Application ID: 24226

<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SE 1/4	35	21 N	03 E	47.2630	-122.3907	Pierce

Location #6 Driving Directions

From I-5:

Take exit for Port of Tacoma Road, turn north

Turn left onto Marshall Avenue

Turn left to enter Blair Dock main gate

<u>LOCATION #7:</u>	Site Name: Pierce County Terminal (PCT) 4015 SR 509 N Frontage Road, Tacoma, WA 98421
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<u>WORK START:</u>	March 15, 2021	<u>WORK END:</u>	February 15, 2026
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<u>WRIA</u>	<u>Waterbody:</u>	<u>Tributary to:</u>
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10 - Puyallup - White	Wria 10 Marine
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<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
All	02	20 N	03 E	47.2538	-122.3779	Pierce

Location #7 Driving Directions

From I-5:

Take exit 136 for Port of Tacoma Road, turn north

Turn left onto SR 509 N

Turn left onto Alexander Avenue to enter facility

<u>LOCATION #8:</u>	Site Name: East Blair 1 Terminal (EB-1) 2340 E Alexander Avenue, Tacoma, WA 98421
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<u>WORK START:</u>	March 15, 2021	<u>WORK END:</u>	February 15, 2026
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<u>WRIA</u>	<u>Waterbody:</u>	<u>Tributary to:</u>
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10 - Puyallup - White	Wria 10 Marine
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<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SE 1/4	35	21 N	03 E	47.2614	-122.3810	Pierce

Location #8 Driving Directions

From I-5:

Take exit 137 for 54th Ave East, turn north

Turn left onto Lincoln Avenue

Turn left onto Alexander Avenue

Turn right to enter facility main gate

<u>LOCATION #9:</u>	Site Name: Parcel 115 1110 East Alexander Avenue, Tacoma, WA 98421
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Application ID: 24226

WORK START:	March 15, 2021			WORK END:	February 15, 2026	
<u>WRIA</u>		<u>Waterbody:</u>				<u>Tributary to:</u>
10 - Puyallup - White		Wria 10 Marine				
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
NE 1/4	34	21 N	03 E	47.2714	-122.4000	Pierce
<u>Location #9 Driving Directions</u>						
From I-5: Take exit 137 for 54th Ave East, turn north Turn left onto E 11th Street Turn left onto East Alexander Ave Turn right to enter facility						
LOCATION #10:	Site Name: TOTE 500 East Alexander Avenue, Tacoma, WA 98421					
WORK START:	March 15, 2021			WORK END:	February 15, 2026	
<u>WRIA</u>		<u>Waterbody:</u>				<u>Tributary to:</u>
10 - Puyallup - White		Wria 10 Marine				
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
NE 1/4	34	21 N	03 E	47.2753	-122.4041	Pierce
<u>Location #10 Driving Directions</u>						
From I-5: Take exit 137 for 54th Ave East, turn north Turn left onto East 11th Street Turn right onto East Alexander Ave Turn left to enter facility main gate						
LOCATION #11:	Site Name: Trident Seafoods 401 E Alexander Ave, Tacoma, WA 98421					
WORK START:	March 15, 2021			WORK END:	February 15, 2026	
<u>WRIA</u>		<u>Waterbody:</u>				<u>Tributary to:</u>
10 - Puyallup - White		Wria 10 Marine				
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
N 1/2	27	21 N	03 E	47.2830	-122.4080	Pierce
<u>Location #11 Driving Directions</u>						



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Project End Date: February 15, 2026

FPA/Public Notice Number: N/A

Application ID: 24226

From I-5:

Take exit 137 for 54th Ave East, turn north

Turn left onto E 11th Street

Turn right onto Alexander Ave

Turn right to enter Earley Business Center

Turn right to enter facility main gate

LOCATION #12:	Site Name: Parcel 99 2901 Taylor Way, Tacoma, WA 98421
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WORK START:	March 15, 2021	WORK END:	February 15, 2026
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WRIA	Waterbody:	Tributary to:
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10 - Puyallup - White	Wria 10 Marine
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1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
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NW 1/4	36	21 N	03 E	47.2688	-122.3744	Pierce
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Location #12 Driving Directions

From I-5:

Take exit 137 for 54th Ave East, turn north

Turn right after intersection with SR 509 to enter facility

LOCATION #13:	Site Name: Parcel 105 3401 Taylor Way, Tacoma, WA 98421
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WORK START:	March 15, 2021	WORK END:	February 15, 2026
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WRIA	Waterbody:	Tributary to:
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10 - Puyallup - White	Wria 10 Marine
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1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
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S 1/2	36	21 N	03 E	47.2612	-122.3651	Pierce
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Location #13 Driving Directions

From I-5:

Take exit 137 for 54th Ave East, turn north

Turn right after intersection with SR 509 to enter facility

LOCATION #14:	Site Name: Parcel 86 3701 Taylor Way, Tacoma, WA 98421
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WORK START:	March 15, 2021	WORK END:	February 15, 2026
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WRIA	Waterbody:	Tributary to:
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10 - Puyallup - White	Wria 10 Marine
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1/4 SEC:	Section:	Township:	Range:	Latitude:	Longitude:	County:
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Project End Date: February 15, 2026

FPA/Public Notice Number: N/A

Application ID: 24226

SE 1/4	36	21 N	03 E	47.2613	-122.3618	Pierce
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Location #14 Driving Directions

From I-5:

Take exit 137 for 54th Ave East, turn north

Turn right after intersection with SR 509 to enter facility

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.



HYDRAULIC PROJECT APPROVAL

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FPA/Public Notice Number: N/A

Application ID: 24226

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAApplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAApplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.



HYDRAULIC PROJECT APPROVAL

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Project End Date: February 15, 2026

FPA/Public Notice Number: N/A

Application ID: 24226

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAApplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist elizabeth.bockstiegel@dfw.wa.gov

for Director

Elizabeth Bockstiegel 360-480-2908

El Bawji

WDEW