

**SECTION 00 01 01  
PROJECT TITLE PAGE**

**ON-CALL PIER AND MARINE REPAIRS**

**PROJECT NO. VARIOUS  
CONTRACT NO. 070466**

**PORT OF TACOMA  
TACOMA, WASHINGTON**

**ADDENDUM NO. 01**

**END OF PROJECT TITLE PAGE**

## **PROCUREMENT AND CONTRACTING REQUIREMENTS**

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**END OF SECTION**

**THE PORT OF TACOMA IS CURRENTLY ACCEPTING SEALED BIDS FOR CONSTRUCTION OF  
THE FOLLOWING:**

**ON-CALL PIER AND MARINE REPAIRS  
CONTRACT NO. 070466 / PROJECT NO. VARIOUS**

- Scope of Work:** The work required for this project includes providing all labor, equipment and materials necessary to repair fender systems, pier structures and other marine systems when requested by the Engineer on Port property. The work will be assigned by Task Orders; each Task Order will address the scope of work and time of completion, and shall be performed in accordance with the Technical and Task Order Specifications.
- Contract Amount:** Contract amount is Not to Exceed (NTE) \$600,000.00, plus Washington State Sales Tax.
- Sealed Bid Date/Time/ Location:** Bids will be received at the Front Reception Desk, Port Administration Office, One Sitcum Plaza, Tacoma, Washington until **2:00 P.M. on Thursday, December 1, 2016**, at which time they will be publicly opened and read aloud.
- Pre-bid Conference and Site Tour:** No pre-bid or site visit is scheduled for this project.
- Bidding Security:** Each bid must be accompanied by a Certified Check or Bid Security in an amount equal to five (5%) percent of the NTE contract amount (\$800,000.00).
- Contact Information:** All questions are to be put into writing to Procurement at [procurement@portoftacoma.com](mailto:procurement@portoftacoma.com) . No oral answers will be binding by the Port.
- Bidding Documents:** Plans, Specifications, Addenda, and Plan Holders List for this project are available on-line through The Port of Tacoma's Website [www.portoftacoma.com](http://www.portoftacoma.com), "Contracts"; "Procurement" and then the Procurement Number (070466). **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 at [procurement@portoftacoma.com](mailto:procurement@portoftacoma.com) with questions.** The Holder's Lists will be updated regularly. Additional Instructions available in 00 21 00 - Instructions to Bidders.

**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. "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 the Bid and intent to enter into a Contract with the Bidder.
- C. The "Award Requirements" include the statutory requirements as a condition precedent to Award.
- D. The "Base Bid" is the sum stated in the Bid for which the Bidder offers to perform the Unit Price Items described in the Bidding Documents as the base to which Task Order proposal will be based on and payment will be made. The Base Bid for On-Call Contracts is the sum of the Unit Prices at the quantity estimated for these services.
- E. 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.
- F. 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.
- G. 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.
- H. A "Bidder" is a person or entity who submits a Bid.
- I. The "Bidding Documents" include the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, any other sample bidding and contract forms, the Bid Bond, and the proposed Contract Documents, including any Addenda issued prior to the Bid Date.
- J. 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.
- K. The "Schedule of Unit Prices" is a schedule on the Bid Form for Unit Pricing as an all-inclusive price per unit of measurement for materials, equipment or services as described in the Bidding Documents or in the proposed Contract Documents for the optional use of the Port. Quantities are general predictions of amounts anticipated. The Schedule of Unit Prices is used in determining Low Bidder for this On-Call Public Works Contract
- L. 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 and insurance provisions), and the potential Project sites, including any existing buildings, it has familiarized itself with the local conditions under which the Work is to be performed and 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.
- D. The Bidder has also satisfied itself as to the conditions and other matters that may be encountered at the potential Project sites or 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 fully to 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 Unit Prices and within the Contract Time provided for in, the Contract Documents.
- E. 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.
- F. 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.
- G. LICENSE REQUIREMENTS. Bidders and Sub-Bidders shall be registered and shall hold such licenses as may be 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.
- 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. Bidding Documents. Bidders may obtain complete sets of the Bidding Documents from the Port's website at [www.portoftacoma.com](http://www.portoftacoma.com) then 'Contracts' 'Procurement' and then find the project number and title.
2. Holder's List. Subscribe to the Holder's List for this procurement by clicking on the 'Holder's List' icon then typing in the contact email address to receive updates and clicking 'Submit'. Following the Submit, a screen will come up to verify subscription. From there, select 'Subscriber Preferences' and then 'Questions' (the 3rd tab). Fill out all information in the questions section and the select 'Submit' and this will complete the registration to the

Port's Holder's List for this procurement. Step by Step directions are available at:  
<http://portoftacoma.com/contracts/procurement>.

3. 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.
4. 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.
5. 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](mailto: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. 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.

8. 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. ADDENDA

1. Distribution. All Addenda will be written and will be posted to the Port's project website for this bid: [www.portoftacoma.com](http://www.portoftacoma.com), then under 'Contracts', 'Procurement' and then select the Contract Number (070131). Only those who have signed up for the Holder's List through the Port's website will get the automatic emails when new project information is posted for this procurement.
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 components 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 initialed 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. Schedule of Unit Prices. All Unit Prices under this schedule shall be bid. The Port reserves the right, but is not obligated to, reject any Bid on which all requested Schedule of Unit Prices are not bid.
7. No Conditions. The Bidder shall make no conditions or stipulations on the Bid Form nor qualify its Bid in any manner.
8. 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.

- a. 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
9. 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. 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 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 percent (5%) 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.
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 and A.M. Best rating of "A minus, Fiscal Size Category (FSC) (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, or (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 who's 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 unforfeited 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, One Sitcum Plaza, Tacoma, WA 98421.
  - b. If a Bid is delivered, it shall be delivered to the Front Reception Desk, Port of Tacoma, One Sitcum Plaza, Tacoma, WA 98421.
  - c. The time stamp clock at the Front Reception Desk at One 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 sixty (60) 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](mailto: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 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 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](mailto: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 (Section 00 45 13) executed by an authorized company officer with all accompanied attachments as noted in the form. 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. Within ten (10) days after the Port's Notice of Award of the Contract, the apparent low Bidder shall also submit to the Port, as requested:
  - 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 percent (10%) 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. Sub-Bidder Responsibility. The Responsibility of the Bidder may be judged in part by the Responsibility of Sub-Bidders. Bidders must verify the Responsibility Criteria for each first-tier Sub-Bidder. A Sub-Bidder of any tier that hires other Sub-Bidders must verify Responsibility Criteria for each of its lower-tier Sub-Bidders. The verification shall include a representation that each Sub-Bidders, at the time of subcontract execution, is Responsible and possesses required licenses.
6. 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, (1) withdraw their Bid, (2) 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 (3) file a protest in accordance with the Bidding Documents.
7. 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.

8. 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 ten (10) 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. The cost of such bonds shall be included in the Base Bid.

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: 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 ten (10) 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**

**BIDDER'S NAME:** \_\_\_\_\_

**PROJECT TITLE: ON-CALL PIER AND MARINE REPAIRS**

Contractor bids to furnish all the labor, materials, equipment, superintendence, insurance, performance bond, payment bond, safety requirements, and other accessories and services necessary to estimate, perform, and complete all of the work required by and in strict accordance with the project documents and the implied intent thereof, for the dollar values as identified in the following Schedule of Unit Prices. Contractor shall allocate overhead, insurance, fees, profit and all project costs to Unit Prices as deemed appropriate. **All Contract costs shall be reflected in the Schedule of Unit Prices.**

The following **Schedule of Unit Prices** is a list of work items and quantities that will be used for calculating a total amount in order to determine the low Bidder. The methodology being utilized includes unit quantities that will be applied to the Schedule of Unit Prices supplied by the Bidder. The Bidder shall write its loaded unit prices, extension calculations and the total bid price. After the bid opening, the Port will verify mathematical accuracy with respect to the extensions of unit bid prices and the total bid price. The Contract shall be awarded to the lowest responsible and responsive Bidder. The stated unit bid quantities will specifically not be a part of the resultant Contract Documents. The Port does not represent or warrant to the Bidder that the actual work provided under this Contract (if any) will be consistent with unit quantities that may be assigned by the Port for purposes of determining the low Bidder. On the contrary, the actual work provided under this Contract (if any) may vary substantially from the unit quantities assigned by the Port for purposes of determining the basis of award, and the winning Bidder shall not be entitled to any adjustment in its unit prices as a result of any variation, no matter how significant, between actual unit quantities and those used for purposes of determining the basis of award.

**Schedule of Unit Prices:**

Item No.	Description of Item	UOM	Unit Bid Quantities	Unit Prices	Extension of Unit Bid Prices
1	Mobilization / Demobilization	EA	8		
2	Floating Derrick with Pile Driving Hammer	DAY	3		
3	Floating Derrick with Pile Driving Hammer Standby	DAY	1		
4	Floating Derrick with Vibratory Hammer	DAY	10		
5	Floating Derrick with Vibratory Hammer Standby	DAY	1		
6	In/Out Costs for Floating Derrick Bid Items 2 & 4	EA	13		
7	Compressor and Tools	DAY	30		
8	Welder	DAY	31		

Division 00 - Procurement and Contracting Requirements

Section 00 41 00 - BID FORM

Item No.	Description of Item	UOM	Unit Bid Quantities	Unit Prices	Extension of Unit Bid Prices
9	Boom Truck (Size Equivalent of 20-30 tons)	DAY	10		
10	Work Skiff	DAY	40		
11	Flat Deck Barge (110' X 35' Min)	DAY	2		
12	Pickup Truck	DAY	40		
13	Flat Bed Truck	DAY	5		
14	Labor (All Classifications)	HR	1300		
15	Labor – Overtime (All Classifications)	HR	150		
16	Marine Mammal Monitor	HR	175		
17	Mobile Crane (Rated for 50 tons)	DAY	10		
<b>TOTAL BID PRICE:</b>					

**Note: All Unit prices must be filled in with numbers. If there is no charge for an item, mark with a zero.**

**Addenda.** Bidder acknowledges review of all Addenda through No. \_\_\_\_\_.

**Contract Time.** The contract period of performance will be 24 MONTHS (2 years), commencing at the date of Execution of the Agreement or until the amount of the contract has been exhausted, whichever occurs first.

Division 00 - Procurement and Contracting Requirements

Section 00 41 00 - BID FORM

**Noncollusion.** The undersigned declares under penalty of perjury that the bid submitted is a 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 says that the said bidder has not directly or indirectly induced or solicited any bidder on the above work or supplies to put in a sham bid, or any other person or corporation to refrain from bidding; and that said bidder has not in any manner sought by collusion to secure to the bidder an advantage over any other bidder or bidders.

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Name of Firm	Date
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Authorized Signature ( <b>00 21 00 2.04 A</b> )	By (Type or Print)	Title
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Email Address	Phone Number
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Mailing Address	City, State	Zip Code
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WA State Contractor's License No.	Date of Issue	Expiration Date
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Employment Security Dept No.	Federal Tax Id No.	UBI No.
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**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**



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. THIS IS NOT TO BE SUBMITTED WITH A BID.**

**Bidder's Company Name:** \_\_\_\_\_

For the below Mandatory Bidder Responsibility Criteria, please check the appropriate box.

**1.0 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 6 months of bid opening date from [publicworks@esd.wa.gov](mailto: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 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

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 1.1. **Provide attached to this completed form documentation to confirm responsibility criteria.**

For remaining criteria below, check or fill-out the appropriate box. 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.

**1.1 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 5 years?

Yes    No    **If YES, explain below.**

\_\_\_\_\_

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 5 years?

Yes    No    **If YES, explain below.**

\_\_\_\_\_

3. Have the Bidder and major Sub-Bidders been in bankruptcy, reorganization and/or receivership on any public works project, in the last 5 years?

Yes    No    **If YES, explain below.**

\_\_\_\_\_

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 5 years?

Yes    No    **If YES, explain below.**

\_\_\_\_\_

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    No    **If YES, explain below.**

\_\_\_\_\_

**1.2 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.

\_\_\_\_\_

**1.3 WORK PERFORMED BY BIDDER**

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

\_\_\_\_\_ %

**1.4 PROJECT EXAMPLE SHEETS**

- 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).
  - 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.

**PROJECT:** \_\_\_\_\_

**PROJECT NO.** \_\_\_\_\_

**CONTRACT NO.** \_\_\_\_\_

**Responsibility Certification Form**

The Low responsive Bidder shall complete the Responsibility Detail Form, attach all documentation and submit to the Port within 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, and 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

**AGREEMENT BETWEEN**  
**PORT AND CONTRACTOR**

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**": \_\_\_\_\_ **(Legal Name)**  
\_\_\_\_\_ (Address)  
\_\_\_\_\_ (Address 2)  
\_\_\_\_\_ (Phone No.)

The "**Project**" is: **On-Call Pier and Marine Repairs** **(Title)**  
\_\_\_\_\_ (Project & Contract No)  
**Various / 070466**  
\_\_\_\_\_ (Project Address)  
**Tacoma Tideflats**  
\_\_\_\_\_ (Project Address 2)

The "**Engineer**" is: \_\_\_\_\_ **(Engineer)**  
\_\_\_\_\_ (Title)  
**Director of Engineering**  
\_\_\_\_\_ (Email)  
\_\_\_\_\_ (Phone No.)

The "**Contractor's representative**" is: \_\_\_\_\_ **(Representative)**  
\_\_\_\_\_ (Title)  
\_\_\_\_\_ (Email)  
\_\_\_\_\_ (Phone No.)

**BACKGROUND AND REPRESENTATIONS:**

The Port has caused Drawings, Specifications, and other Contract Documents to be prepared for the performance of On-Call Services.

The Port publicly solicited bids on the Contract Documents. The Contractor submitted a bid to the Port on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ to perform On-Call Services 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 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 Executed Task Orders under this Contract, 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 this agreement is executed. Each Task Order shall have a date for completion from which time is measured.

**3.0 CONTRACT TIME AND LIQUIDATED DAMAGES**

The Contractor shall achieve all interim completion as set forth in executed task orders and Final Completion of the entire Contract not later than **730 calendar days** from contract execution, subject to adjustments of this Contract Time as provided in the Contract Documents, or until all funds are depleted, whichever comes first.

Provisions for liquidated damages as a reasonable estimate of future loss, are included in the Contract Documents. The parties agree that the stated liquidated damages are not penalties individually or cumulatively.

The liquidated damages for failure to achieve Substantial Completion, based on the executed Task Order by the prescribed Task Order date shall be determined at time of Task Order Proposal and Execution and, if any, will appear on the executed Task Order.

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 in each executed task order, shall be levied for each and every calendar day that Substantial Completion of the work is delayed beyond the prescribed completion date, or the completion date modified by the Port for extensions of the task order 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.

**5.0 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 execution date written below:

**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)**

**AGENT OR BROKER (FOR INFORMATION ONLY)**

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**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 has executed an agreement with the Port dated \_\_\_\_\_ for \_\_\_\_\_ 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 Chapter 39.08 Revised Code of Washington.

**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 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 of (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**

**CONTRACTOR**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
Printed Name and Title

Power of Attorney attached.

**END OF SECTION**

**LABOR AND MATERIAL PAYMENT BOND # \_\_\_\_\_**

**CONTRACTOR (NAME AND ADDRESS)**

**SURETY (NAME AND PRINCIPLE PLACE OF BUSINESS)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**OWNER (NAME AND ADDRESS)**

**AGENT OR BROKER (FOR INFORMATION ONLY)**

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**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 executed an agreement with the Port dated \_\_\_\_\_ for \_\_\_\_\_ a copy of which Contract is be 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 documents or provisions incorporated into the Contract) and is hereinafter referred to as the Contract.

This bond is executed pursuant to the provisions of Chapter 39.08 Revised Code of Washington.

**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. The 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 or Contract Time and the amounts payable to the Contractor. 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 this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**IMPORTANT:** Surety companies executing bonds must have an A.M. Best Rating of A- FSC of (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**

**CONTRACTOR**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
Printed Name and Title

Power of Attorney attached.

**END OF SECTION**

Bond No. \_\_\_\_\_

Project Title: \_\_\_\_\_

Project No.: \_\_\_\_\_

Contract No. \_\_\_\_\_

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 5% of any increases in the contract amount 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.  
\_\_\_\_\_ with the Port for \_\_\_\_\_.

WHEREAS, said contract and RCW 60.28 require the Port to withhold from the Principal the sum of  
5% 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 Chapter 60.28 RCW.

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 Chapter 60.28 RCW. 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 Chapter 60.28 RCW, 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 Chapter 60.28 Revised Code of Washington (RCW) 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 \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
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 of (6) or higher, and be authorized to transact business in the State of Washington.

<b>To:</b>	Bank Name, Address, Phone	Escrow Account No:	
		Contract No:	Port fills in
		Project No:	Port fills in
<b>Agency:</b>	Port of Tacoma PO Box 1837 Tacoma, WA 98401-1837	Project Title:	Port fills in

The Undersigned \_\_\_\_\_, (Contractor Name and Address) hereinafter referred to as the Contractor, has directed the Port of Tacoma, hereinafter referred to as the Port, to deliver to \_\_\_\_\_ (Name of Bank), hereinafter referred to as "You", its checks for retainage under the Contract which shall be payable to You and the Contractor jointly, and which shall be held and disposed of by You in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

**ESCROW INSTRUCTIONS:**

1. Checks made payable to You and the Contractor jointly upon delivery to You shall be endorsed by the Contractor and by You and then forwarded for collection by You. The moneys will then be used by You to purchase, as directed by the Contractor, bonds or other securities (hereinafter collectively referred to as "Securities") chosen by the Contractor and approved by the Port. Attached is a list of Securities approved by the Port. Other Securities, except stocks, may be selected by the Contractor, subject to express prior written approval of the Port, in its sole and absolute discretion. The purchase of Securities shall be in a form which shall allow You alone to reconvert such Securities into money if You are required to do so by the Port as provided in Paragraph 4 of this Escrow Agreement.
2. When and as interest on the Securities held by You pursuant to this Agreement accrues and is paid, You shall collect such interest and forward it to the Contractor at its address designated in the first paragraph unless otherwise directed by the Contractor.
3. You are not authorized to deliver to the Contractor all or any part of the checks or moneys received by You or the Securities held by You pursuant to this Agreement (or moneys derived from the sale of such Securities, or the negotiation of the Port's checks) except in accordance with written instructions from the Port's Sr. Contract Administrator. Compliance with such instructions shall relieve You of any further liability related thereto. The estimated final completion date on the Contract underlying this Agreement is \_\_\_\_\_.
4. In the event the Port orders You to do so in writing, You shall, within ten (10) days of receipt of such order, reconvert into money some or all of the Securities held by You pursuant to this Agreement, as required to satisfy the Port's order, and return such money, together with any other moneys held by You hereunder and required to satisfy the Port's order, to the Port. Consent of Contractor shall not be required for payment to the Port hereunder, and objection or other communication from Contractor shall not prevent, delay, or otherwise affect payment to the Port forthwith in accordance with the Port's order and this Agreement.
5. The Contractor agrees to pay You as compensation for Your services hereunder as follows: Payment of all fees shall be the sole responsibility of the Contractor and shall not be deducted from any checks, moneys, Securities, or other property placed with You or held by you pursuant to this Agreement until and unless the Port directs the release thereof to the Contractor, whereupon You shall be granted a first lien upon such property released and shall be entitled to reimburse Yourself from such property for the entire amount of Your fees as provided for hereinabove. In the event that You

are made a party to any litigation with respect to the checks, moneys, Securities, or other property held by You hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that You are required to render any service not provided for in these instructions, or that there is any assignment of the interests of this escrow or any modification hereof, You shall be entitled to reasonable compensation for such extraordinary services from the Contractor and reimbursement from the Contractor for all costs and expenses, including reasonable attorney fees occasioned by such default, delay, controversy or litigation.

6. This Agreement shall not be binding until executed by Contractor and Port, and accepted by You.
7. This instrument contains the entire agreement between You, the Contractor, and the Port with respect to this escrow. There are no terms, obligations, covenants, or conditions regarding this escrow other than those contained herein, and You are not a party to nor bound by any instrument or agreement regarding this escrow other than this Agreement. You shall not be required to take notice of any default or any other matter under the Contract nor be bound by nor required to give notice or demand under the Contract, nor required to take any action whatsoever except as herein expressly provided. You shall not be liable for any loss or damage not caused by Your own negligence or wilful misconduct.
8. The foregoing provisions shall be binding upon the assigns, successors, personal representatives and heirs of the parties hereto.
9. The Contractor's Federal Income Tax Identification number is \_\_\_\_\_.

The undersigned have read and hereby approve the instructions as given above governing the administration of this escrow and do hereby execute this Agreement this \_\_\_ day of \_\_\_\_\_, 20\_\_.

**Contractor:**

**Port of Tacoma**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Name/ Port Treasurer or Deputy Treasurer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

The above escrow instructions received and accepted this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**Bank:** By \_\_\_\_\_ Name: \_\_\_\_\_  
(Signature of Authorized Bank Officer) Title: \_\_\_\_\_

**SECURITIES AUTHORIZED BY THE PORT:**

1. FDIC insured time deposits and time deposits in commercial banks authorized by the Washington State Public Deposit Protection Commission.
2. Savings account deposits in commercial banks authorized by the Washington State Public Deposit Protection Commission.
3. Bills, certificates, notes or bonds of the United States;
4. Other obligations of the United States or its agencies; and
5. Obligation of any corporation wholly-owned by the government of the United States;

**INSTRUCTIONS FOR RETAINAGE ESCROW AGREEMENTS:**

Whenever possible, use the Port of Tacoma (Port) approved Escrow Agreement. The Port, at its discretion, may or may not accept an agreement form from another source.

Please return all three (3) originals of the Agreement, with completed contractor and bank information and signatures, and the escrow account number. The Port will review and sign the Agreement and distribute copies. One (1) original will go directly to the Bank, one (1) original will be returned to the Contractor.

Fill in the following on the Escrow Agreement:

- 1) Page 1 – Escrow Account Number
- 2) Page 1 – Name, address, and phone number of the Bank
- 3) Page 2 – Signature, typed/printed name, date, and the title of the Contractor Signatory.
- 4) Page 2 – Signature, typed/printed name, date, and the title of the Authorized Bank Officer signatory.

Do not fill in the date in the paragraph directly following paragraph 9. The Port will fill in this date once the document has been fully executed by the Port.



## 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. "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.
- B. "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.
- C. "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.
- D. "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.
- E. "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.
- F. "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.
- G. "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.
- H. "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 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. Order of Precedence:
    - a. Change Orders;
    - b. Agreement;
    - c. Amended Task Order(s);
    - d. Special or Supplementary Conditions;
    - e. General Terms and Conditions;
    - f. Task Order(s), includes Technical Specifications, Drawing Details and Drawings issued with Task Order(s);
    - g. Bid Form;
    - h. Technical Specifications, Divisions 1 through 49 included as part of the original solicitation;
    - i. Drawing Details;
    - j. Drawings;
    - k. Certificates/Bonds/Affidavits; and,
    - l. Invitation for Bid, including all sections in Division 0 not specifically referenced above.
  - 2. 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.

- B. 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.
- C. 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.
- D. 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. 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 Progress 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, including its Commission, officers, managers, employees (including 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. 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.
- H. 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 to 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 SMALL BUSINESS ENTERPRISE PARTICIPATION.**

- A. Small business participation encouraged. The Port's policy is to encourage the Contractor to solicit and document participation, and to provide and promote the maximum lawful, practicable opportunity for increased participation, by small business enterprises.

## **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 Progress 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 Progress 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, 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 in a bank, mutual savings bank or savings and loan association; or
  3. Placed in escrow with a bank or trust company; or
  4. 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 minus, 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](http://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 same daily liquidated damage rate specified in the Contract Documents due the Port for the Contractor's delay in achieving Substantial Completion. By submitting a bid on the Work and executing the Contract, the Contractor represents that these liquidated damages are a reasonable estimate of its loss.

- 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) and any liquidated damages paid hereunder.

#### 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 shut-down, 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; and
    - a. 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 ten (10) 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 minus, 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. 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 Progress 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 DEFINITIONS**

- A. Project Work is defined as the scope of work defined for each task order. The general term Work includes the overall scope of the on-call contract for Pier and Marine Repairs in the Tacoma Tideflat and miscellaneous associated tasks.
- B. Project Submittals are submittals due with each task order. General Submittals are for the overall on-call contract for Pier and Marine Repair services. General Submittals includes all pre-award submittals and additionally (but not limited to) following:
  - 1. Weighted Wage Rates
  - 2. Contractors Equipment Rates and List
  - 3. Emergency Contracts
- C. The Project Manager is the individual identified by the Port as having delegated authority under this contract for the specific task order.

### **1.02 CONTRACTOR'S COST ESTIMATE**

- A. Prior to any work being performed by the Contractor, the Port Project Manager identified for a Task Order will forward the Contractor a proposed scope of work and may additionally request a site visit with the Contractor. The Contractor shall review the proposed scope of work and become familiar with all site conditions and constraints and review the contract documents for specific requirements for the scope of work services.
  - 1. Contractor shall review with the assigned Project Manager the work restraints, submittals, security and access to the site requirements and all other coordination and task order requirements that may be required and submit all costs associated with the task order with their task order proposal.
- B. The Contractor shall provide the Project Manager with a detailed cost estimate for the proposed scope of work on the template provided by the Port. The Contractor's cost estimate shall identify the estimated unit quantities for the work and, as needed, further labor, material, and equipment costs for the work if no unit price exists for the work being estimated.
  - 1. For task order work not included in the bid Schedule of Unit Prices, the additional work will be paid preferably as negotiated unit price(s) or lump sum(s) or on a time and material basis if unit pricing or lump sums cannot be negotiated at the time of Task Order negotiation. Contractor shall provide backup information for scope pricing of items not included on the Schedule of Unit Prices when requested by the Project Manager, including as needed work proposed to be performed by a Subcontractor.
  - 2. The Contractor's cost estimate shall include only those mark-ups allowed by the Contract. Markups for task order pricing on time and material work shall be as defined in Section 00 70 00 - General Conditions, paragraph 8.02 B. The estimate shall include a final project estimate which will be the bases for the task order amount.
  - 3. The Contractor shall submit its cost estimate within five (5) calendar days of receipt of the proposed scope of work.
  - 4. Estimates shall also include an estimated start date and an estimated duration, in calendar days, to complete the proposed scope of work.
- C. EXECUTED TASK ORDERS

1. If the Port accepts the Contractor's cost estimate, the Port's Contracting Department will issue the Contractor an executed Task Order for the scope of work defined. The Contractor shall do no work without a fully executed Task Order from the Port. Work shall be coordinated through the Port Project Manager.

D. PROCEEDING WITH THE WORK

1. The Task Order will serve as notice to the Contractor to proceed. The Contractor shall begin work within five (5) calendar days of receipt of the executed Task Order unless otherwise noted and agreed upon with the Port Project Manager. No mobilization on site shall occur until all required pre-work submittals are submitted and accepted by the Project Manager.

E. REVISION OF THE AMOUNT AUTHORIZED

1. The Contractor shall immediately notify the Port Project Manager as soon as it's determined that the work cannot be completed as estimated. The Contractor shall provide the Port Project Manager with a revised estimate and schedule within two (2) calendar days of providing notice. The Contractor shall not proceed with any Work that would result in exceeding the authorized not-to-exceed amount identified in the Task Order without confirmation from the Port Project Manager. Once a revised task order total is negotiated, the Port will issue a revision to the task order.

F. PAYMENT FOR ON-CALL WORK

1. Upon satisfactory completion and acceptance of the Task Order Work, the Contractor shall submit to the Port an invoice for that item of Work. The Contractor shall attach a copy of the Task Order with the invoice. The Port will not make payment on any task order invoice until all required Intents have been filed with L&I (See Section 00 73 49 for Intents and Affidavits for On-Call Contracts).
2. Payment will be based on the Schedule of Unit Prices bid amounts. The Contractor shall include (or attach) the following items pertaining to the project as part of each invoice:
  - a. Port assigned Contract number, and if applicable, Project ID number and Task ID number.
  - b. Quantity and type of Work as described in the Schedule of Unit Prices.
  - c. Copy of signed Contractor Work Authorization.
  - d. Contractor's Partial Release and Waiver of Lien (Form available on Port Website)
  - e. Amounts Paid to Subcontractors and Suppliers (Form available on Port Website)
    - 1) Copies on Intents to Pay Prevailing Wages shall be attached for any new sub-tier contractor doing work for the task order.
3. The invoice shall provide an itemized accounting of the labor, material and equipment costs for the work, all subcontractor work where applicable, and all approved mark-ups. Each invoice shall have backup documentation that supports the invoice including daily work reports, material invoices and equipment rental invoices per the Schedule of Unit Prices.
4. Failure to provide completed invoice information and back-up documentation will delay the payment process and the invoice will be returned to the Contractor for completion.
5. When more than one invoice is submitted for an individual task order, the invoice shall clearly be marked Partial or Final invoice.

### 1.03 COMPLETION

- A. Substantial Completion will be issued at the completion of each task order once all work is complete and all project submittals have been accepted by the Port and following any revision to the task order, as may be needed, is executed.
  - 1. The Project Manager will issued the Notice of Substantial Completion. Final Task Order Invoices should be submitted within 30 days of the notice.
- B. Final Completion of the Contract will happen once all substantial Completions have been issued and all required submittals have been received by the Port.
- C. Final Acceptance will be issued once all additional required submittals have been accepted by the Port per these contract documents.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## **PART 1 - GENERAL**

### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

- A. The provisions and intent of the Contract, including the General and Supplemental Conditions apply to this work as if specified in this section. Work related to this section is described throughout these Specifications.

### **1.02 SUBMITTAL REQUIREMENTS**

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

### **1.03 CONTRACTOR LIABILITY 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 (6)" or better.
- B. The Port will be included as an additional insured for both ongoing and completed operations by endorsement to the policy using ISO Form CG 20 10 11 85 or forms CG 20 10 03 97 and CG 20 37 10 01 (or equivalent coverage endorsements). Also, by endorsement to the policy, there shall be an express waiver of subrogation in favor of the Port; a cross liabilities clause, and an endorsement stating that the Contractor's policy is primary and not contributory with any insurance carried by the Port. The inclusion of the Port as an additional insured shall not create premium liability for the Port.
- C. If the Contractor, Supplier or Subcontractor's 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 Contractors' 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 as an additional insured, 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. Commercial 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. By endorsement to the policy, not exclude work within fifty feet of any railroad track.

2. 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.
  3. 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 of 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 shall be named as an Additional Insured on the CPL policy.
  4. 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 \$2,000,000. 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. Contractor shall obtain at Contractor's expense and keep in effect during the term of the contract, Marine Vessel Pollution Liability insurance with limits of liability of not less than \$2,000,000.
- 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 and \$2,000,000 in the aggregate. 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. The Additional Insured endorsement shall NOT be limited to the amounts specified by this contract unless expressly waived in writing by the Port of Tacoma.

- 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 specific task orders. The Contractor shall be solely responsible for determining the applicability of USL&H and Jones Act coverage when submitting task order proposals. 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 is named as additional insured.
- 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) days' 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. Whenever the estimated cost of the Work is less than \$25,000,000, the Port will purchase and maintain, in 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 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. This insurance shall include interests of the Port, the Contractor, and Subcontractors of any tier on the Project. There may be some differences between this Section and the builder's risk insurance secured by the Port; therefore, the Contractor shall provide an "installation floater" or similar property coverage for materials not yet installed, whether stored on site or off site or in transit, and the Contractor shall obtain property coverage for all Contractor-owned equipment and tools.. Each loss may be subject to a deductible of \$25,000. Losses up to the deductible amount shall be the responsibility of the Contractor. All tools and equipment not intended as part of the construction or installation will be the sole responsibility of the Contractor.
- C. Whenever the estimated cost of the Work is \$25,000,000 or more, the Contractor shall purchase and maintain, in 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 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. This insurance shall include as named insureds and as loss payees the Port, the Contractor, and Subcontractors of any tier, as their respective interests appear. This insurance shall insure against the perils of fire (with extended coverage) and physical loss or damage including without limitation, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal, and shall also provide "all risk" coverage for the interests of the Port, the Contractor and Subcontractors of any tier as named insureds, as their respective interests appear. Upon written request, the Contractor will provide a copy of its policy to the Port. Each loss may be subject to a deductible of not more than \$10,000, except that the deductible for earthquake and flood losses shall be no greater than 5% of the loss or \$100,000, whichever is more. Losses up to the deductible amount or otherwise not covered by insurance shall be the responsibility of the Contractor. This insurance shall include as named insureds and as loss payees the Port, the Contractor and Subcontractors of any tier, as their respective interests appear. The policy shall be endorsed to allow complete or partial occupancy by the Port before or after Substantial Completion without the insurer's approval. All tools and equipment of the Contractor and Subcontractors of any tier not intended as part of the construction or installation of the Work will be the sole 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 submittal deadline for this project, the applicable effective date for prevailing wages for this project is **August 1, 2016**.
- 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 copy of the applicable prevailing wage rates are also available for viewing at the Port Administration Building, located at One Sitcum Plaza, Tacoma, WA 98421 (253-383-5841). Upon request to the Procurement Department at [procurement@portoftacoma.com](mailto: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 attached or provided schedule of prevailing wage rates and the published rates applicable under WAC 296-127-011, or if no schedule is attached, 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 under oath with the Port and certified by the Director of Labor and Industries.
    - 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 Director 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. **For On-Call Contracts** - One Intent to Pay Prevailing Wages and a corresponding approved Affidavit of Wages Paid (Affidavits) are to be filed for each 12 month (one year) period of the contract performance for the Contractor and all subcontractors of any tier. Intents for the Contractor and all subcontractors shall be filed prior to any payment for work performed following contract execution. Following the first 12 month period, Affidavits must be received prior to final payment for work performed during the first 12 month period. New Intents shall be filed prior to any payment for work performed during the second 12 month period for the Contractor and all subcontractors. Affidavits from the Contractor and all subcontractors must be received from Washington State's Department of Labor and Industries (L&I) per Article 6 of the General Conditions.
- H. 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 L&I.
- I. The Contractor shall post in a location readily visible to workers at the Project site (1) a copy of the Statement of Intent to Pay Prevailing Wages approved by the Industrial Statistician of the Department of Labor and Industries and (2) 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.
- J. 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.
- K. 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.
- L. 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 Chapter 51 RCW ("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 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 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. Identification card issued by the Port of Tacoma
  - 5. Pacific Maritime Association card, or
  - 6. Labor organization identification card
- B. Identification cards shall be visible while on the work 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.
- B. For more information, refer to the Port Security website at:  
<http://www.portoftacoma.com/Page.aspx?cid=3597>
- C. For project specific information will be on a task order basis and will be worked out at the time of task order execution.

### 1.04 ELIGIBILITY FOR TWIC

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

### 1.05 1.06 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 On-Call Pier and Marine Repair project work generally consists of providing all labor, equipment and materials necessary to repair fender systems, pier structures and other marine systems when requested by the Engineer on Port property.
- B. The Port desires to have available, competitively bid labor, equipment and materials for small projects, on reasonably short notice.
- C. The Work under this contract is to provide, furnish and install all labor, materials and equipment, as required to complete the work, installed, tested, and ready for use, and as described in these documents and future task order requests.
- D. Work will be allocated by the Engineer based upon project schedule requirements. When work is identified, the Engineer will request that the Contractor submit an estimate on the Port provided task order form. The Contractor shall submit a completed estimate for the work within seven (7) days. Work shall commence within seven (7) days of return receipt of an approved Task Order, or as agreed by the Engineer. A request by the Engineer to the Contractor for an estimate shall not constitute authorization for the Contractor to proceed with the proposed work
- E. Before execution of any work under this contract, the Contractor must have received an authorization electronically from the Port which consists of an issued Task Order accompanied by an electronic copy of the Port approved Contractor estimate.

### **1.02 LOCATION**

- A. Projects are located at various Port of Tacoma piers, wharfs and waterways.

### **1.03 SUBMITTALS**

- A. Qualifications of the Marine Mammal Monitor in accordance with the qualifications specified in the permits.

### **1.04 ACCESS TO SITE**

- A. Contractor access to the project site will be by City Street. Contractor vehicles and personal vehicles belonging to employees will be parked outside the project area and as a part of its bid, the Contractor will provide a shuttle service to transport employees to and from the work site. The Contractor will be provided parking adjacent to the terminal area. The Contractor may be required to relocate entry and related work areas as required by the Engineer. All business will be conducted through the access points assigned by the Engineer.

### **1.05 MATERIALS**

- A. General – Material may be Contractor or Port furnished as directed by the Engineer. Port furnished material shall not be subject to markup. Contractor material shall be subject to listed markup on invoiced or full material value (FMV) as applicable.
- B. Creosote piles are no longer acceptable at the Port. All replacement piles will be ACZA treated piles, and shall meet BMPs for minimizing leaching of contaminants.
- C. Rub Strips are to be ASTM D 4020, averaging 3.1 to 6 million molecular weight, ultra-violet stabilized with 2.5% carbon black or ASTM F2619 high density polyethylene (HDPE).
- D. MSD Fenders of the composition and configuration appropriate to the location.

1.06 WORK PERFORMED UNDER SEPARATE CONTRACTS

- A. The Contractor shall become familiar by way of the Engineer, with any awarded, pending or in progress contracts which may affect the Work of the Contractor. The Contractor shall coordinate activities with other contractors through the Engineer to minimize potential schedule conflicts.
- B. All schedules are subject to change due to vessel schedules, weather, equipment failure, Port or Tenant operations.

1.07 BENEFICIAL USE/OCCUPANCY BY THE PORT OF TACOMA

- A. It is the intent of the Port to occupy the project upon completion. Beneficial Occupancy by the Port shall not necessarily constitute acceptance of the Work.

1.08 ENGINEERING AND INSPECTION

- A. The Engineer will perform the necessary inspection work except as otherwise specified in the Contract Documents. Refer to Section 01 45 00, Quality Control, for general requirements.

1.09 COORDINATION

- A. Port Activities: The Contractor will coordinate its activity through the Engineer and Port Inspector, so interference with Port activities will be minimized. The Contractor shall carry out work in a manner that minimizes interference and does not delay Port operations.
- B. All costs associated with coordination of the work shall be considered incidental to the lump sum and unit prices bid.

1.10 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. Flaggers to direct traffic as required by Tacoma Rail to accommodate the Contractor's work.
- B. The Contractor shall be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or negligence in connection therewith.
- C. 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 performed 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 planning and providing and maintaining adequate traffic control measures for the protection of the Contractor's work and the public.

1.11 PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the protection of all existing utilities, pavement and structures on or adjoining the premises, whether shown on the drawing(s) or not. Damage, to such items shall be restored to their original condition immediately by the Contractor without charge to the Port.

1.12 SALVAGE

- A. Hardware including nuts, bolts, washers and timbers (declared salvageable by the Engineer) and not re-incorporated into the work shall be salvaged for the Port of Tacoma. Creosoted material that cannot be salvaged will be stockpiled and tested. The Contractor will pay for the testing and determine the final disposal site. The Contractor shall then dispose of the material per federal, state and local laws, rules and regulations.

### 1.13 REGULATORY REQUIREMENTS

- A. The Port will obtain all in-water permits necessary for work. The programmatic shoreline exemptions have been acquired by the Port prior to in-water work activities. Hydraulic Project Approvals (HPA) have been acquired by the Port prior to pile repair and maintenance work on waterways around the Port. Contractor shall ensure that all work is conducted in compliance with the Department of the Army Permit (NWS-2011-0089-WRD) included in Appendix B, and the Washington Department of Fish and Wildlife Hydraulic Project Approval (HPA) (HPA #122693-3) included in Appendix B. The Contractor shall coordinate with the Engineer prior to beginning work to ensure all agency notifications have been made.
- B. Contractor shall conduct marine mammal monitoring during pile removal and installation, consistent with the protocol described in the project's Marine Mammal Monitoring Plan included in Appendix B. Qualifications of the Marine Mammal Monitor shall be submitted to the Engineer prior to execution of each task order requiring marine mammal monitoring.
- C. In addition, the Contractor is wholly responsible for ensuring their activities are compliant with the provisions of the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA). The contractor must ensure that their activities do not result in the "take" of any marine mammal or ESA-listed species.
  - 1. Observations required by permits shall be documented in the Contractor's daily reports.

### 1.14 CONTRACT DRAWINGS

- A. Drawing Number AP-6299-01 is the Rub Strip detail for new ACZA fender Piles (See Appendix C).

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## **PART 1 - GENERAL**

### **1.01 PAYMENT PROCEDURES**

- A. The Contractor shall bill the Port for each individual project, correlating to the individual Task Order requests as completed, to provide the Port with sufficient information to properly distribute the charges.
- B. Prior to submitting pay estimates to the Port, the Contractor and the Engineer shall review the work accomplished to determine the actual quantities including labor, materials and equipment charges to be billed. All quantity backup documentation shall be submitted to the Engineer listed on the approved task order with the draft pay estimate. Following the Engineer's review, the Contractor shall prepare an original pay estimate with all required documentation attached and submit electronically using Adobe PDF file format to [cpinvoices@portoftacoma.com](mailto:cpinvoices@portoftacoma.com).

### **1.02 TASK ORDER PRICING**

- A. The rate includes required certifications, insurance, benefits and other labor costs not covered by the prevailing wage rate, performance and payment bond, insurance required by the General Conditions, estimating, supervision, overhead and profit, taxes (except that Washington State Sales Tax will be added to each Task Order) and all other costs of supplying labor, equipment and materials and performing the Work.
- B. The Engineer shall require an estimate of the Work, which shall be the total compensation to be paid for that Task Order. The Contractor shall provide to the Engineer a detailed cost estimate supporting the submitted proposal. The estimate shall adhere to the provisions of this section. Whenever it appears that the cost to complete the Task Order may exceed the estimate, the Contractor shall promptly notify the Engineer before proceeding with the Work.
- C. Some of the bid items descriptions are identical but have differing quantities. For each Task Order the Contractor shall estimate the total quantity for each item of work and provide the task order estimate based on the estimated total quantity.
- D. One Intent to Pay Prevailing Wages and an Approved Affidavit of Wages Paid (Affidavits) are due for each 12 month (one year) period of the contract performance. Intents for the Contractor and all subcontractors shall be filed prior to any payment for work performed following contract execution. Following the first 12 month period, Affidavits must be received prior to final payment for work performed during the first 12 month period. New Intents shall be filed prior to any payment for work performed during the second 12 month period for the Contractor and all subcontractors. Affidavits from the Contractor and all subcontractors must be received from Washington State's Department of Labor and Industries (L&I) per Article 6 of the General Conditions.

### **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 and issued Task Order.
- 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. All incidental work, including work not specifically identified in the measurement and payment sections identified below, but necessary to complete each line item listed below, shall be included in the bid item prices. Temporary Facilities and Controls, Temporary Erosion and Sediment Control and Construction Pollution Prevention, and traffic control are incidental to the work and shall be included in the bid item prices as appropriate.
- D. For tasks that are necessary for the completion of the Task Order but fall outside the scope of services included as a bid item, the additional work will be paid preferably as negotiated unit price(s) or lump sum(s) or on a time and material basis if unit pricing or lump sums cannot be negotiated at the time of Task Order negotiation.

#### 1.04 MEASUREMENT PROCEDURES

- A. Measurement will be made in whole units for all types of material, labor, and equipment utilized.
- B. Measurement by weight shall be with State of Washington certified accurate scales at a location or locations approved by the Engineer.
- C. The tonnage claimed by the Contractor for all such bid items shall be verified with weigh tickets from the material supplier. One (1) copy of each load ticket shall be attached to the daily report for the day of delivery and shall not be valid for payment unless each daily and ticket(s) have been reviewed and approved by the Engineer.
- D. The Engineer reserves the right to reduce the stated tonnage for material which, in the Engineer's opinion, has more than the moisture content required for good compaction.
- E. Material received at the job site but not satisfactory to the Engineer shall be rejected. All costs associated with the unsuitable material, including the expense of disposal in waste areas, shall be borne solely by the Contractor.
- F. Weighing will be considered incidental to construction and all costs thereof shall be included by the Contractor in the appropriate bid prices for the material being weighed.
- G. All equipment, materials, and labor used shall be entered on Daily Report Forms and submitted to the Engineer for Verification against Contractor's application for payment. Submit all daily reports to the Engineer for work performed the previous week no later than the following Monday for concurrence and approval.

#### 1.05 MEASUREMENT FOR PAYMENT

- A. It is the Port's intent to call upon the Contractor to do multiple repairs per visit, although there may be circumstances when an immediate single repair is necessary. Please note in-water repairs (i.e. pile driving) are subject to permit acquisition.

Measurement for payment will be at the Lump sum or Unit Price as stipulated in the Bid Form for the items listed below. Payment shall be considered full compensation for furnishing all labor, materials and equipment to complete the Work specified.

Payment for equipment will not start until the equipment is on-site, ready to operate. No payment will be made for equipment that will not function properly, requiring or being repaired or for lack of the proper personnel to operate it. Equipment is furnished complete with operator or driver and other required service personnel, ready to work, etc. except as noted below.

The Port will not pay for standby or non-operating time for equipment except as noted below. The Contractor shall inform the Engineer when the task order is complete prior to release of equipment and operator.



The following sets forth a general description of the work covered in each bid item and may not be all inclusive. All work specifically indicated to be within these Specifications shall be performed whether or not specifically listed under an item description.

1. BID ITEM NO. 1 - MOBILIZATION AND DEMOBILIZATION

- a. Payment for MOBILIZATION AND DEMOBILIZATION shall be for preparatory and cleanup work and operations performed by the Contractor including, but not limited to, task order supervision and project management, those necessary for the movement of its personnel, equipment, supplies and incidentals to and from the Project Site; for premiums on bonds and insurance for the Project, L&I Intents and Affidavits, TWIC Cards and any necessary escort services, and for other work and operations which must be performed or costs incurred before beginning work on the various items on the Project Site.

Individual Task Orders will have a single mobilization / demobilization cost to the site from the Contractor's facility unless approved by the Engineer in the original estimate.

- b. Mobilization and Demobilization shall be paid at the per each unit price listed in the schedule of unit prices for each Task Order.

2. BID ITEMS NO. 2 THROUGH 3 - FLOATING DERRICK WITH PILE DRIVING HAMMER

- a. Measurement and payment for the pile driving hammer shall be per day based on the rate set in the schedule of unit prices. When not in use the standby rate will be applied. Mobilization between repair locations will be considered in use. For bidding purposes these items only include the equipment, no labor (crew) included.

3. BID ITEM NO. 4 THROUGH 5 – FLOATING DERRICK WITH VIBRATORY HAMMER

- a. Measurement and payment for the vibratory hammer shall be per day based on the rate set in the schedule of unit prices. When not in use the standby rate will be applied. Mobilization between repair locations will be considered in use. For bidding purposes these items only include the equipment, no labor (crew) included.

4. BID ITEMS NO. 6 - IN/OUT COSTS FOR FLOATING DERRICK BID ITEMS 2 AND 4

- a. In/Out cost shall be measured and paid for using the unit price established in the schedule of unit prices for preparatory work and operations performed by the Contractor for the movement of items 2 and 4 to and from the project site.

5. BID ITEMS NO. 7 – COMPRESSOR AND TOOLS

- a. Use of compressor and tools will be measured and paid per day based on the rates set in the schedule of unit prices.

6. BID ITEMS NO. 8 - WELDER

- a. Use of the welder will be measured and paid per day based on the rates set in the schedule of unit prices.

7. BID ITEM NO. 9 – BOOM TRUCK (SIZE EQUIVALENT OF 20-30 TONS)

- a. Use of Boom Truck will be measured and paid per day based on the rates set in the schedule of unit prices. Mobilization and demobilization costs are to be included in the day rate and no additional compensation shall be made thereof for mobilization.

8. BID ITEM NO. 10 – WORK SKIFF

- a. Use of the work skiff will be measured and paid per day based on the rates set in the schedule of unit prices.
9. BID ITEM NO. 11 – FLAT DECK BARGE (110’x35’ MIN)
  - a. Use of the flat deck barge will be measured and paid per day based on the rates set in the schedule of unit prices. Mobilization and demobilization costs are to be included with the pile driver mobilization costs and no additional compensation shall be made thereof.
10. BID ITEM NO. 12 – PICKUP TRUCK
  - a. Use of a pickup truck will be measured and paid per day based on the rates set in the schedule of unit prices.
11. BID ITEM NO. 13 – FLAT BED TRUCK
  - a. Use of a flatbed truck will be measured and paid per day based on the rates set in the schedule of unit prices.
12. BID ITEM NO. 14 – LABOR (ALL CLASSIFICATIONS)
  - a. This item is the total cost for each hour of labor, for work, including all fringe benefits, small tool allowances, overhead and profit, etc., regardless of classification.
13. BID ITEM NO. 15 – LABOR – OVERTIME (ALL CLASSIFICATIONS)
  - a. This item is the total cost for each hour of overtime labor, for work, including all fringe benefits, small tool allowances, overhead and profit, etc., regardless of classification.
14. BID ITEM NO. 16 – MARINE MAMMAL MONITOR
  - a. This item is the total cost for each hour of labor, for work, including all fringe benefits, small tool allowances, overhead and profit, etc.
15. BID ITEM NO. 17 – MOBILE CRANE (RATED FOR 50 TONS)
  - a. Use of Crane will be measured and paid per day based on the rates set in the schedule of unit prices. Mobilization and demobilization costs are to be included in the day rate and no additional compensation shall be made thereof for mobilization.
    1. Crane must be capable of supporting in-water work (including driving piles) from the landside. Contractor must include appropriate mats, cribbing or other reinforcing materials to distribute applied loads to deck structure in order to prevent damage to Port owned assets.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## **PART 1 - GENERAL**

### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

- A. The provisions and intent of the Contract, including the General Conditions apply to this work as if specified in this section. Work related to this section is described throughout these Specifications
- B. Individual submittals required in accordance with the pertinent sections of these specifications. Other submittals may be required during the course of the project and are considered part of the normal work to be completed under the Contract.

### **1.02 SUBMITTAL LOG**

- A. Contractor shall, within 5 days of receipt of an executed Task Order, prepare and submit for Engineer approval a detailed log of all the submittals required under the Task Order, 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. Submittal Number (see below).
  - 2. Item identification.
  - 3. Scheduled submittal date, date returned, date approved.
  - 4. Date submittal or material is needed.
- B. 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, 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 or ANSI B. Required electronic formats for these drawings are as follows:
  - 1. AutoCad DWG
  - 2. PDF - Formatted to print to half-scale set on 11x17.
- D. 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. Scans of hardcopy originals will not be accepted.

### 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. Accepted subject to its compatibility with future submittals and additional partial submittals for portions of the work not covered in this submittal. Does not constitute approval or deletion of specified or required items not shown in the partial submittal.
  - 2. Make Corrections Noted (No Resubmittals Required). Same as Item 1, except that minor corrections as noted shall be made by Contractor.
  - 3. Revise and Resubmit. Rejected because of major inconsistencies or errors. Resolve or correct before next submittal.
  - 4. Rejected-Resubmit. 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" or "Make Corrections 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-Resubmit," 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 for to conform to the Drawings or Specifications, 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 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 including samples electronically, whenever possible. Notes, clouding, arrows or other post document generation notations must be applied directly into the electronic file using software designed for that purpose. Each submittal shall be accompanied by a transmittal.

- 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. An example of the numbering protocol is given here for an Electrical Submittal "26 05 33-001-01 PVC Schedule 80 Conduit".
- C. Product submittals that cannot be accomplished electronically shall be accompanied by a printed transmittal. These submittals will be hand delivered to the Port offices at One Sitcum Plaza, Attention: Engineering Department/ Task Order Project Manager's Name.
- 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. The Contractor's failure to do this will be the cause for rejection. Submittals shall bear this approval stamp and initials.
- 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.

### 3.02 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 Port, use the submittal log to track the transmittal of submittals to the Port, the receipt of submittal comments from the Port, and all subsequent action with respect to each submittal. Provide an updated copy of the submittal log to the Port during each weekly progress meeting, unless otherwise approved by the Port.

**END OF SECTION**

## **PART 1 - GENERAL**

### **1.01 DESCRIPTION OF WORK**

- 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.

### **1.02 SUBMITTALS**

- A. Prior to the start of any work, the Contractor shall provide a Health and Safety Plan (HASP) for work on Port properties, which meets all the requirements of local, state and federal laws, rules and regulations and the pertinent regulations listed in other Divisions of these Contract Documents.
- B. The Contractor shall prepare a Spill Prevention, Control and Countermeasure (SPCC) Plan prior to the start of any construction activity. The Contractor can submit the HASP and SPCC Plan as one comprehensive document or can submit the plans as separate documents.
- C. Prior to the start of earthwork, the Contractor shall provide a site specific HASP, which meets all the requirements of local, state and federal laws, rules and regulations and the pertinent regulations listed in other Divisions of these Contract Documents. 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 sites illustrating the location of the anticipated hazards and areas of control for those hazards.
  - 3. Hazardous material inventory and Safety Data Sheets (SDS) for all chemicals which will be brought on site.
  - 4. Signage appropriate to warn site personnel and visitors of anticipated site hazards.
  - 5. Documentation that the necessary workers have completed the required HAZWOPER training.
  - 6. Engineering controls/equipment to be used to protect against anticipated hazards.
  - 7. Personal protective equipment and clothing including head, foot, skin, eye, and respiratory protection.
  - 8. Procedures which will be used including but not limited to:
    - a. Hot Work
    - b. Hazards
  - 9. Exposure monitoring to be used to evaluate actual hazards compared with anticipated conditions.
  - 10. Site housekeeping procedures and personal hygiene practices.
  - 11. Personnel and equipment decontamination plan.
  - 12. Railroad safety procedures.
  - 13. Administrative controls.

14. Emergency plan including locations of and route to nearest hospital.
15. Medical surveillance program for site personnel before, during, and after completion of site work.
16. Medical removal protection;
17. Record keeping including:
  - a. Documentation of appropriate employee training
  - b. Respirator fit testing
18. Name and qualification of person preparing the HASP and person designated to implement and enforce the plan.
19. Signatory page for site personnel to acknowledge receipt, understanding, and agreement to comply with the plan.

### 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 296-901-14010). 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 Health and Safety Plan requirements as noted in WAC 296-901-14010 and 296-800-17005.

#### B. Potential Exposures Routes

1. Inhalation: Airborne dust may be created during site activities. Inhalation of vapors or gases may occur if volatile contaminants or hydrogen sulfides are present.
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 contaminated 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 contaminated 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, shall be addressed in the HASP.

- B. Specific aspects of construction resulting in physical hazards anticipated for this project included, but are not limited to the following:

1. Working with hot liquids.

C. Other anticipated physical hazards include, but are not limited to the following:

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 insect stings or bites.
4. Trips and falls.

**PART 2 - PRODUCTS**

2.01 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. Chemicals to be used on site including dust suppressants/wetting agents, cleaning degreasing, and/or welding/cutting supplies;
2. Hazardous materials inventory and SDSs for the chemicals brought on site;
3. Fencing and barriers;
4. Warning signs and labels;
5. Fire extinguishers;
6. Personal protective equipment (hard hats, foot gear, skin, eye, and respiratory protection);
7. Area and personnel exposure monitoring equipment;
8. Decontamination equipment and supplies;
9. First aid equipment;
10. Release 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 cause 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 and subcontractors and their employees of the potential danger in working with any potentially contaminated materials, equipment, soils and groundwater at the project site.
- C. 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.

- D. 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 any safety measures taken in, on, or near the construction site.
- E. Accidents causing death, injuries, or damage must be reported immediately to the Engineer 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.
- F. 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. 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.
- B. 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 oil, fuel and other petroleum products 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 from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.
- C. The Contractor shall, at a minimum, take the following measures regarding oil 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 oil and products' storage tanks shall be diked, contained and/or located so as to prevent spills from escaping into the water. Diking and containment area surfaces shall be lined with impervious material to prevent oil from seeping through the ground and dikes.
  - 3. All visible floating oils shall be immediately contained with booms, dikes or other appropriate means and removed from the water prior to discharge into state waters. All visible oils on land shall be immediately contained using dikes, straw bales or other appropriate means and removed using sand, ground clay, 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 off site 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

D. The Contractor shall maintain the following materials (as a minimum) at each of the project sites:

1. Oil-absorbent pads or bulk material, adequate for coverage of 200 square feet of surface area.
2. Oil dry all, gloves and plastic bags.

**END OF SECTION**

## **PART 1 - GENERAL**

### **1.01 QUALITY CONTROL FOR COMPLIANCE:**

- A. All work described in the Contract Documents must be fully tested in accordance with applicable sections of these Specifications. The provisions and intent of the Contract, including the General Conditions, Supplementary Conditions and General Requirements, apply to this work as if specified in this Section.

### **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 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.

### **1.04 REFERENCES AND STANDARDS**

- A. For Products or workmanship specified by association, trade, or other consensus 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 by date of issue current on date of Contract Documents, except where a specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. Neither the contractual relationships, duties or responsibilities of the parties in Contract, nor those of the Engineer, shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

### **1.05 TESTING SERVICES**

- A. 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.

- B. Testing does not relieve Contractor to perform work to contract requirements.
- C. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm. Payment for re-testing will be charged to the Contractor by deducting testing charges from the Task Order sum.
- D. 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.

#### 1.06 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, as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

#### 1.07 SAMPLING AND TESTING

- A. Initial sampling and testing necessary to secure conformance with the specification of materials shall be the Contractor's responsibility.
- B. 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.

### **PART 2 - PRODUCTS - NOT USED**

### **PART 3 - EXECUTION**

#### 3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

#### 3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

**END OF SECTION**

## **PART 1 - GENERAL**

### 1.01 DESCRIPTION OF WORK

- A. The Work may include the requirements to provide temporary facilities required by both the Contractor and the Port until Final Completion of the Work. The Work also may include compliance with all controls or ordinances with respect to Task Order, safety, noise, dust, security, or traffic.

### 1.02 SUBMITTALS:

- A. The Contractor shall provide a site specific Temporary Facilities and Controls Work Plan as required for each task order that details management of the environmental conditions presented during performance of the Work and provides methods for how the Work will be performed upon request of the Engineer.
- B. The Plan shall be submitted to the Engineer and accepted prior to beginning Work. The Temporary Facilities and Controls Work Plan may include, as required by the Engineer:
  - 1. A general description of demolition work to be performed discussing anticipated chemical and/or physical hazards associated with the work.
  - 2. Hazardous Waste Contingency Plan
  - 3. Description of anticipated waste streams and procedures for site management, transportation and offsite disposal/recycling.
  - 4. Methods for managing/accumulating/stockpiling soil, ground asphalt and crushed concrete on-site.
  - 5. Document control, including the documentation of all waste transportation and disposal, and including submission of a complete and final report to the Port.
  - 6. Methods for site maintenance and security.
  - 7. Description of air pollution control procedures and air permit application for onsite crushing operations.
  - 8. Methods for management of noise.
  - 9. Tree and plant protection.
  - 10. Health Department Permits associated with approvals required for disposing of solid waste in landfills regulated by the Tacoma-Pierce County Health Department.
  - 11. Hazardous Materials Management Plan to address onsite conditions.
  - 12. Methods to protect groundwater from contamination, and methods to protect monitoring wells and water supply wells from damage.
  - 13. Run-off management plan detailing controls to be used during building washing, dust control, asbestos wetting, and any other use of water during the project which may impact the stormwater system.
  - 14. Oil Spill Response and Prevention Procedures

## **PART 2 - PRODUCTS - NOT USED**

### **PART 3 – EXECUTION**

#### **3.01 UTILITIES**

- A. The Contractor shall provide adequate facilities for Contractor's operation at Contractor's expense, including:
  - 1. Water
    - a. Fresh drinking water for employees shall be provided in sanitary containers by the Contractor. The Contractor shall make arrangements to supply construction water for the duration of this Contract.
    - b. All such connections, fittings, etc. shall be furnished, installed by the Contractor and removed upon completion of the work, to the satisfaction of the Engineer.
  - 2. Toilet Room Facilities
    - a. The Contractor shall install and maintain necessary temporary sanitary toilet facilities during the term of this contract. Toilet facilities for employees shall be maintained in a sanitary condition. Toilets shall be of a chemical type; removed at completion of Work and the premises disinfected.
  - 3. Communications
    - a. The Contractor shall maintain the appropriate equipment to allow for the efficient communication via voice and the Internet with the Port and with outside parties at all times during the term of this contract. All accounts shall be registered in the name of the Contractor.

#### **3.02 SITE MAINTENANCE**

- A. Clean-Up
  - 1. The Contractor shall keep the work site, staging areas, and Contractor's facilities clean and free from dirt, dust, rubbish and debris at all times. Materials and equipment shall be removed from the site when they are no longer necessary. Before Task Order completion, the work site shall be cleared of equipment, unused materials, and dirt, dust and rubbish to present a clean and neat appearance. Disturbed areas shall be restored per the Engineers direction
  - 2. Waste material of any kind shall not be permitted to remain on the site of the work or on adjacent streets. Immediately upon collection of such materials, they shall be carried off the site and disposed of properly by the Contractor.
  - 3. In the event that waste material, refuse, debris or rubbish is not so removed from the work by the Contractor, the Port reserves the right to have such material removed and the expense of the removal and disposal charged to the Contractor.
  - 4. Paints, solvents, and other materials shall be handled with care to prevent entry of contaminants into storm drains, surface waters, or soils. These materials shall be collected and properly disposed of by the Contractor, using the Port's site ID number.
- B. Public Street and Onsite Roadway Cleaning
  - 1. 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.

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2. When trucks and other equipment are operating on paved public streets and site roadways/paved surfaces, the Contractor will be required to clean said streets, roadways and other paved surfaces at least daily, and at other times if required by the Engineer.
  3. 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 the expense of the operation charged to the Contractor.

### 3.03 AIR POLLUTION CONTROL

- A. The Contractor shall use renewable energy to the maximum extent practicable. The Contractor shall use only ultra low sulfur diesel (ULSD), biodiesel and ULSD blend, gasoline fuels and other equivalent clean fuels.
- B. The Contractor shall meet or exceed EPA Tier 2 off-road diesel engine emission standards for off-road equipment  $\geq 25$ 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
  2. Off-road equipment used  $\leq 1$  hour per day not to exceed 8 hours total per contract
  3. Off-road equipment used  $\leq 8$  hours total per contract
- C. The Contractor shall submit to the Engineer a complete equipment list identifying engine manufacturer and model, engine family number, engine model year, engine serial number, engine horsepower, off-road engine EPA Tier level, fuel type.
- D. The Contractor shall not discharge smoke, dust, and other contaminants into the atmosphere that violate local, state or federal regulations. The Contractor shall maintain construction vehicles and equipment in good repair. The Engineer may request the Contractor replace or repair equipment if exhaust emissions are determined to be excessive by the Engineer.
- E. No vehicles can idle for more than 5 consecutive minutes, except as follows:
  1. Idling is necessary to ensure the safe operation of the equipment, including idling to verify that the equipment is in safe operating condition and equipped as required by all the provisions of the law, and all equipment is in good working order, either a part of the daily equipment inspection, or as otherwise needed.
  2. Idling is required to bring the equipment to necessary operating temperature
  3. Engine operation is necessary to accomplish work for which the equipment was designed (i.e. operating a crane)
  4. Idling when queuing (i.e. machine is situated in a queue of other vehicles, must intermittently move forward to perform work or service, and when shutting the engine off would impede the progress of the queue and be impractical); and
  5. Idling of any vehicle being used in an emergency or public safety capacity
- F. The Contractor shall minimize nuisance dust by cleaning, sweeping, vacuum sweeping, sprinkling with water, or other means. The use of water, in amounts which result in mud on public streets or runoff to onsite or offsite storm drain catchments, is not acceptable as a substitute for sweeping or other methods. Equipment for this operation shall be on the job site or available at all times.

### 3.04 NOISE CONTROL

- A. Construction involving noisy operations, including starting and warming up of equipment shall be in compliance with local noise ordinances.
- B. The Contractor shall comply with all local controls and noise level rules, regulations and ordinances which apply to any work performed pursuant to the Contract.
- C. Each internal combustion engine, used for any purpose on the job or related to the job, shall be enclosed and be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler and enclosure.
- D. Workers shall not be exposed to noise levels for scrapers, pavers, graders and trucks exceeding 90 dBA as measured under the noisiest operating conditions. For all other equipment, workers shall not be exposed to noise levels exceeding 85 dBA. Equipment that cannot meet these levels shall be quieted by use of improved exhaust mufflers, portable acoustical screens, or other means. Equipment not modified to meet these requirements shall be removed from the project.

### 3.05 USE AND OCCUPANCY

- A. The Contractor will be allowed space for the storage of materials, equipment and employee parking as designated by the Engineer. Employee parking will be confined to the Contractor's work and storage area.
- B. The construction site shall be closed to the public at all times. The Contractor shall abide by special request of security personnel, and local police and fire departments.

**END OF SECTION**



## **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 at 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)**

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> New Structure | <input type="checkbox"/> Building Addition | <input type="checkbox"/> Grading/Excavation |
| <input type="checkbox"/> Paving        | <input type="checkbox"/> Utilities         | <input type="checkbox"/> 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)
 

<input type="checkbox"/> Forest	<input type="checkbox"/> Pasture/field grass	<input type="checkbox"/> Pavement	<input type="checkbox"/> Landscaping	<input type="checkbox"/> Brush
<input type="checkbox"/> Trees	<input type="checkbox"/> Other:			
2. Describe how surface water (stormwater) drainage flows across/from the site. (Check all that apply)
 

<input type="checkbox"/> Sheet Flow	<input type="checkbox"/> Gutter	<input type="checkbox"/> Catch Basin	<input type="checkbox"/> Ditch/Swale	<input type="checkbox"/> Storm Sewer
<input type="checkbox"/> Stream	<input type="checkbox"/> Other:			
3. Describe any unusual site condition(s) or other features of note.
 

<input type="checkbox"/> Steep Grades	<input type="checkbox"/> Large depression	<input type="checkbox"/> Underground tanks	<input type="checkbox"/> Springs
<input type="checkbox"/> Easements	<input type="checkbox"/> Existing structures	<input type="checkbox"/> Existing utilities	<input type="checkbox"/> 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:
 

<input type="checkbox"/> Streams*	<input type="checkbox"/> Lakes*	<input type="checkbox"/> Wetlands*	<input type="checkbox"/> Steep slopes*
<input type="checkbox"/> Residential Areas	<input type="checkbox"/> Roads	<input type="checkbox"/> Ditches, pipes, culverts	<input type="checkbox"/> 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:

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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.

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**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:

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

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**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.

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**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)

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## 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 2012; City of Tacoma 2012). 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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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---

**OR**

This element is not required for this project because:

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*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:

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**OR**

This element is not required for this project because:

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*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:

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---

**OR**

This element is not required for this project because:

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**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. 2012. Stormwater Management Manual 2012 Edition. Public Works/ Environmental Services, Maintenance Division, Tacoma, Washington.

Washington State Department of Ecology (Ecology). 2012. Stormwater Management Manual for Western Washington. Water Quality Program, Lacey, Washington.

## **PART 1 – GENERAL**

### **1.01 WORK DESCRIPTION**

- 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 control, respond to, and dispose of eroded sediment and turbid water during the term of the Contract.
- B. These TESC 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
  - 4. Stockpiles
  - 5. Discharge points within or adjacent to the work areas that are impacted by stormwater runoff from the site.
- C. Acceptance of TESC 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. For the work to be performed under this contract, the Contractor shall read and conform to requirements set forth in Ecology’s NPDES Phase I Municipal Stormwater Permit.

### **1.02 REFERENCES**

- A. The rules, requirements, and regulations that apply to this Work include, but are not necessarily limited to the following:
  - 1. Department of Ecology, “Stormwater Management Manual for Western Washington,” 2012.
  - 2. Department of Ecology, “Phase I Municipal Stormwater Permit,” 2013.
  - 3. City of Tacoma “Surface Water Management Manual,” Tacoma Public Works, Environmental Services, January 2012.

### **1.03 SUBMITTALS**

- A. A Construction Stormwater Pollution Prevention Plan (SWPPP) per the requirements in Section 3.02 of this section.
- B. Copies of the updated SWPPP for each task order, including all additional TESC BMPs, as needed.
- C. Safety Data Sheet (SDS) for any dust palliative product.
- D. A copy of all Contractor site inspection logs at a time interval (e.g., weekly, monthly) specified by the Engineer.

### **1.04 AUTHORITY OF ENGINEER**

- A. Engineer has the authority to limit the area of work, as determined by analysis of project conditions; and to direct the Contractor to provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, and other areas of water impoundment.

- B. If by the Contractor's actions, adjacent areas suffer degradation due to erosion, sediment deposit or water flows, the Engineer may stop construction activities until the Contractor rectifies the conditions.

## **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. 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.
- B. 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.
- C. Contractor shall be solely responsible for schedule impacts incurred because of Contractor, subcontractor, or supplier actions in implementing the requirements of this Section.
- D. The Contractor shall be responsible for updating the project SWPPP during construction to reflect required changes to BMPs, as needed, at no additional cost to the Port.

### **3.02 TEMPORARY EROSION AND SEDIMENT CONTROL DEVELOPMENT**

- A. Contractor shall prepare and submit a site-specific SWPPP prior to initiating any ground disturbing activities.
  - 1. SWPPPs describe the proposed construction activities and all Temporary and Permanent Erosion and Sediment Control measures, pollution prevention measures, inspection/monitoring activities, and recordkeeping that will be implemented during each task order. SWPPPs cover planning, installing, inspecting, maintaining, and removing TESC BMPs per Ecology's Volume II of the Stormwater Management Manual for Western Washington. BMPs are designed to prevent pollution of air and water, to control peak volumetric flow rates and velocity of stormwater, and to control, respond to, and dispose of eroded sediment and turbid water during the term of the Contract.
  - 2. SWPPP templates are available to the Contractor for this purpose. The template was prepared by the Port to meet part of the NPDES stormwater permit requirements for this Contract. 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.
  - 3. The Port's short form template will meet this projects SWPPP requirements. The SWPPP short form template is attached to the end of this section.
- B. Contractor shall develop task-specific TESC BMPs and incorporate them into the SWPPP. The Contractor shall address the following issues as part of developing and implementing the BMPs.
  - 1. TESC BMPs shall meet the requirements in Ecology's Volume II of the Stormwater Management Manual for Western Washington (2012).
  - 2. The information in this Section are minimum requirements for the anticipated site conditions during each task order.

3. During the execution of each task order the Contractor shall, at no additional cost to the Port, upgrade TESC measures as needed for unexpected storm events, modify TESC measures for changing site conditions (such as relocation of ditches and silt fences, etc.), and update the SWPPP to document all modifications made.

### 3.03 TEMPORARY EROSION AND SEDIMENT CONTROL IMPLEMENTATION

- A. Contractor is responsible for implementing the SWPPP including TESC BMPs.
- B. Contractor shall inspect TESC measures daily and maintain these facilities to ensure continued proper functioning for the duration of each task order.
- C. TESC measures in an inactive area shall be inspected and maintained by the Contractor until the area is permanently stabilized.
- D. In the event that 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 ensure that water or a dust palliative and a dispensing methodology is available as needed for project use. It is the responsibility of the Contractor to develop and adhere to appropriate safety measures pertaining to the palliative use.
- F. The Contractor shall remove all TESC measures and clean stormwater facilities impacted upon completion of the Work for each task order.

**END OF SECTION**

**PART 1 - GENERAL**

1.01 RELATED WORK DESCRIBED ELSEWHERE

- A. The provisions and intent of the Contract, including the General Conditions, Supplementary Conditions, and other sections of the General Requirements apply to this work as if specified in this section. Work related to this section is described throughout the specifications.
- B. Prior to requesting final inspection, the Contractor shall assure itself that the project is complete in all aspects.

**PART 2 - PRODUCTS**

2.01 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 Task Order Completion Date.
- B. The Contractor shall promptly (within 48-hours) repair or replace all defective or damaged items delivered under the contract. The Contractor will haul away all defective or damaged items prior to Task Order Completion Date.
- C. In the event of equipment failure, during such time or in such a location that immediate repairs are mandatory, the Contractor shall respond promptly, irrespective of time. If the Contractor is not available, the Port will effect repairs. The Contractor shall then reimburse the Port for parts and labor necessary to correct deficiencies as defined within the warranty clause and time.

**PART 3 - EXECUTION**

3.01 CLEAN-UP

- A. Final clean-up and clean-up during the course of the work is defined in the General Conditions. Those paragraphs are supplemented to provide the following:
  - 1. General: Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described above.
  - 2. Site: Unless otherwise specifically directed by the Engineer, sweep all paved areas within the work zone, all public sidewalks and catch basins on adjoining streets. Completely remove all resultant debris.
- B. Timing: Schedule final cleaning as approved by the Engineer to enable the Port to occupy a completely clean project.

**END OF SECTION**



# Appendix A

# Sample Task Order

# Estimate



**TASK ORDER**  
**ON-CALL PIER AND MARINE REPAIRS**  
 Contract No. 070466

CONTRACTOR: \_\_\_\_\_

MASTER ID: \_\_\_\_\_

Date Requested: \_\_\_\_\_

Start Date: \_\_\_\_\_

Completion Date: \_\_\_\_\_

Location of Work: \_\_\_\_\_

\_\_\_\_\_

Scope of Work: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

No.	Bid Item	Unit	Quantity	Unit Price	Total
1	Mobilization/Demobilization	EA			
2	Floating Derrick with Pile Driving Hammer	DAY			
3	Floating Derrick with Pile Driving Hammer Standby	DAY			
4	Floating Derrick with Vibratory Hammer	DAY			
5	Floating Derrick with Vibratory Hammer Standby	DAY			
6	In/Out Costs for Floating Derrick Bid Items 2 & 4	EA			
7	Compressor and Tools	DAY			
8	Welder	DAY			
10	Boom Truck (Size Equivalent of 20-30 tons)	DAY			
11	Mobile Crane (Rated for 50 tons)	DAY			
12	Work Skiff	DAY			



ON-CALL PIER AND MARINE REPAIRS

CONTRACT 070466

Page 2 of 2

No.	Bid Item	Unit	Quantity	Unit Price	Total
13	Flat Deck Barge (110'X35' Min)	DAY			
14	Pickup Truck	DAY			
15	Flat Bed Truck	DAY			
16	Labor (All Classifications)	HR			
17	Labor – Overtime (All Classifications)	HR			
18	Marine Mammal Monitor	HR			
19	Materials				
20	Subcontractor				
				Subtotal	
				9.6% WSST	
				Work Order Total	



# Appendix B

# Programmatic Permit



REPLY TO  
ATTENTION OF

Regulatory Branch

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

OCT 25 2012

Port of Tacoma

OCT 26 2012

Environmental Dept.

Mr. Mark Rettmann  
Port of Tacoma  
P.O. Box 1837  
Tacoma, Washington 98401-1837

Reference: NWS-2011-0089-WRD  
Tacoma, Port of  
(Pile Replacement  
Program)

Dear Mr. Rettmann:

Enclosed is a Department of the Army permit which authorizes the 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](http://www.nws.usace.army.mil) select "Regulatory Branch Permit Information".

If you have any questions please contact Ms. Olivia Romano, at (206) 764-6960 or email at [olivia.h.romano@usace.army.mil](mailto:olivia.h.romano@usace.army.mil).

Sincerely,

Michelle Walker  
Chief, Regulatory Branch

Enclosures

## DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Port of Tacoma

Mr. Mark Rettmann  
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 conduct maintenance activities at 12 wharf/pier structures over a five year period including the replacement of up to 1,000 piles (fender piles, dolphin piles, and/or support piles), and associated pile caps, chock, whalers, and rub strips at structures and place up to 600 cubic yards of sand in any holes left from the pile removal, at AMP Terminals, Terminal 7, Olympic Container Terminal, Husky Terminal (Terminal 3 and 4), Washington United Terminal, Blair Dock, Trident Pier 24 and 25, BRAC, Parcel 86, Parcel 99, Parcel 105, and Parcel 115 (in accordance with the plans and drawings dated July 02, 2012 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 the existing wharf/pier structures.

**Project Location:**

In Hylebos, Blair, and Sitcum Waterways and Commencement Bay, in Tacoma, Pierce County, Washington.

**Permit Conditions:**

*General Conditions:*

- OCT 25 2017**
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 one 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 Corps, 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 15th of each year in which work under this permit is conducted. This completed form must be submitted to U.S. Army Corps of Engineers, Regulatory Branch, Post Office Box 3755, Seattle, Washington 98124-3755.

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 United States Code (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 Sitcum, 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; BRAC facility; Parcel 99/Arkema Chemical; Washington United Terminal, and Terminal 3. This information must be provide 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 construction in 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 Corps.

f. You must implement and abide by the enclosed Best management Practices for Piling Removal and Disposal, dated March 1, 2007, with the exception of BMP 3B.

g. You must implement and abide by the Endangered Species Act (ACT) 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 concurred with a finding of "may affect, not likely to adversely affect" based on this document on May 24, 2012 (USFWS Reference #01EWF00-2012-I-0111). The National Marine Fisheries Service concurred 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 and will enforce any know violations of the commitments made in this document pursuant to the ESA.

h. In order to protect Puget Sound Chinook, Puget Sound steelhead, and Coastal-Puget Sound bull trout, the permittee may conduct the authorized activities from 16 July through 28 February in any year this permit is valid. The permittee shall not conduct work authorized by this permit from 1 March through 15 July in any year this permit is valid.

**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 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.

X [Signature]  
NAME OF PERMITTEE

X Oct. 22, 2012  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

[Signature]  
for Bruce A. Estok  
Colonel, Corps of Engineers  
District Engineer

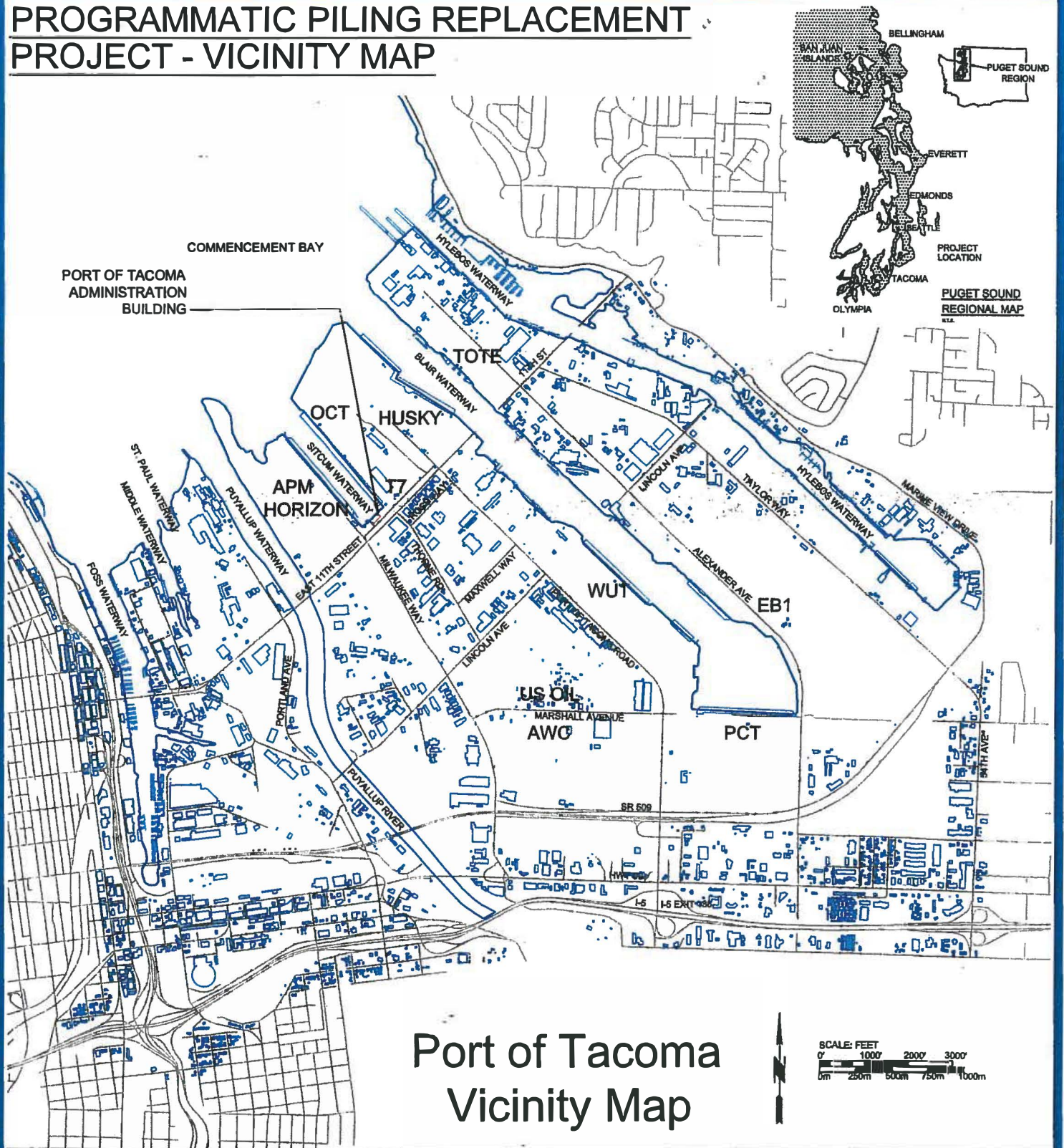
25 OCTOBER 2012  
(DATE)

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)

# PROGRAMMATIC PILING REPLACEMENT PROJECT - VICINITY MAP



Port of Tacoma  
Vicinity Map



SCALE: FEET  
0 1000' 2000' 3000'  
0m 250m 500m 750m 1000m

DATE OF PRINT: Oct 07, 2011 1:02:06pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - VMap.dwg

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**  
P.O. BOX 1837 TACOMA, WA 98401  
(253)383-5841

**FIGURE**

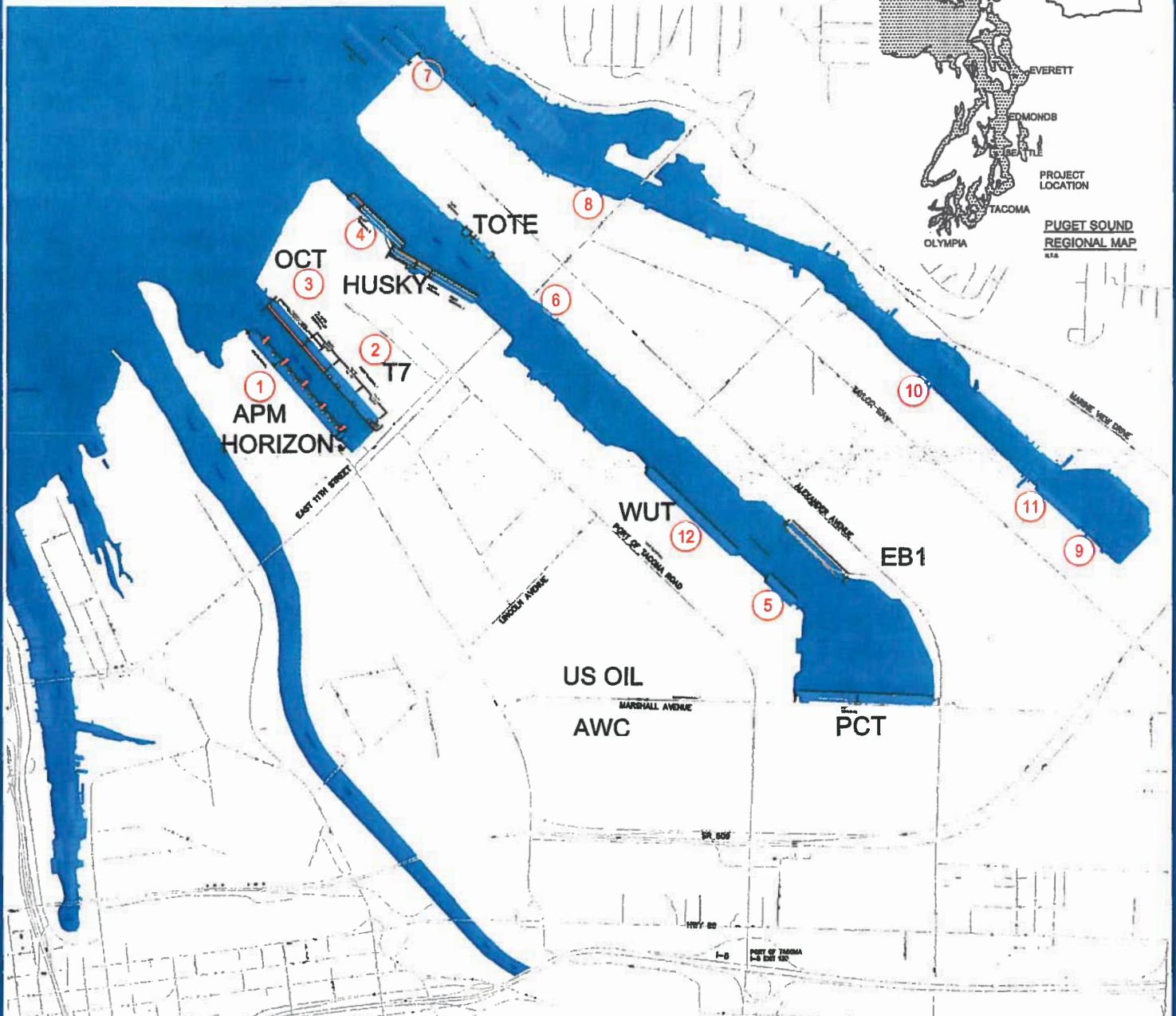
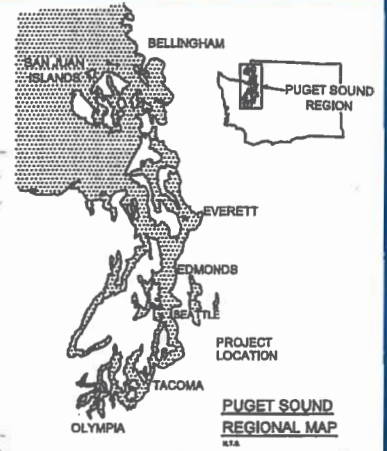
**01**

STATE: WA  
COUNTY: PIERCE  
CITY/PORT: PORT OF TACOMA  
LOCATION: PORT OF TACOMA  
PURPOSE: PILING REPLACEMENT PROJECT

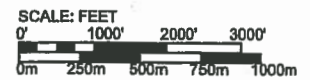
PROJECT NO: N/A  
SHEET: 1 OF 10  
DATE: 7/02/12



# PROGRAMMATIC PILING REPLACEMENT PROJECT - SITE PLAN



## Port of Tacoma Vicinity Map



DATE OF PRINT: Oct 07, 2011 2:21:10pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

- |                  |                 |              |
|------------------|-----------------|--------------|
| ① APM TERMINALS  | ⑤ BLAIR DOCK    | ⑨ PARCEL 88  |
| ② TERMINAL 7     | ⑥ PARCEL 115    | ⑩ PARCEL 99  |
| ③ OCT            | ⑦ TRIDENT       | ⑪ PARCEL 105 |
| ④ HUSKY TERMINAL | ⑧ BRAC PROPERTY | ⑫ WUT        |

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

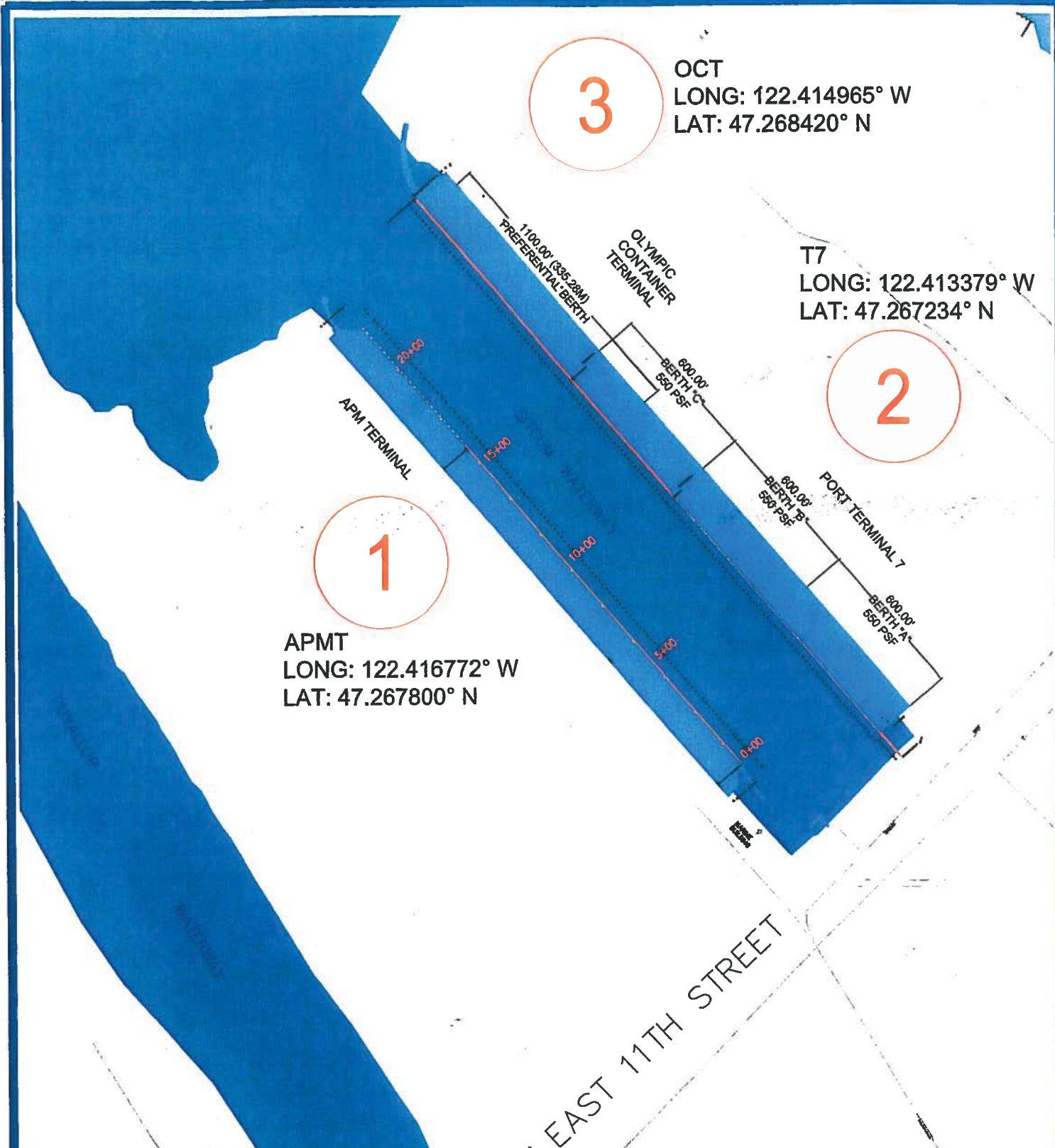
### FIGURE

02

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 2 OF: 10

DATE: 7/02/12



3

OCT  
 LONG: 122.414965° W  
 LAT: 47.268420° N

2

T7  
 LONG: 122.413379° W  
 LAT: 47.267234° N

1

APMT  
 LONG: 122.416772° W  
 LAT: 47.267800° N

EAST 11TH STREET

DATE OF PRINT: Oct 07, 2011 2:22:00pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

① APM TERMINAL  
 ② T7 TERMINAL  
 ③ OCT TERMINAL

Reference: NWS-2011-0089-WRD

0' 500' 1000'

**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

**FIGURE 03**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 3 OF: 10

DATE: 7/02/12

SLIP 1 NEARSHORE CONFINED DISPOSAL FACILITY AND BERM

TOTE TERMINAL

PORT TERMINAL 3

4

HUSKY  
LONG: 122.410196° W  
LAT: 47.274250° N

HUSKY TERMINAL

PORT TERMINAL 4

OLYMPIC CONTAINER TERMINAL

1100.00' (355-280)  
PREFERRED BERTH

800.00' BERTH 'C'  
550 PSF

800.00' BERTH 'B'  
550 PSF

PORT TERMINAL 7

DATE OF PRINT: Oct 07, 2011 3:03:57pm - BY: bercher - FILE LOCATION: L:\PTac\Projects\11 General Projects\110105\_0005 - Program\Info Piling Replacement Project\CAD\PTac Program\Info Piling Rep Proj - Location Maps.dwg

④ HUSKY TERMINAL

Reference: NWS-2011-0089-WRD



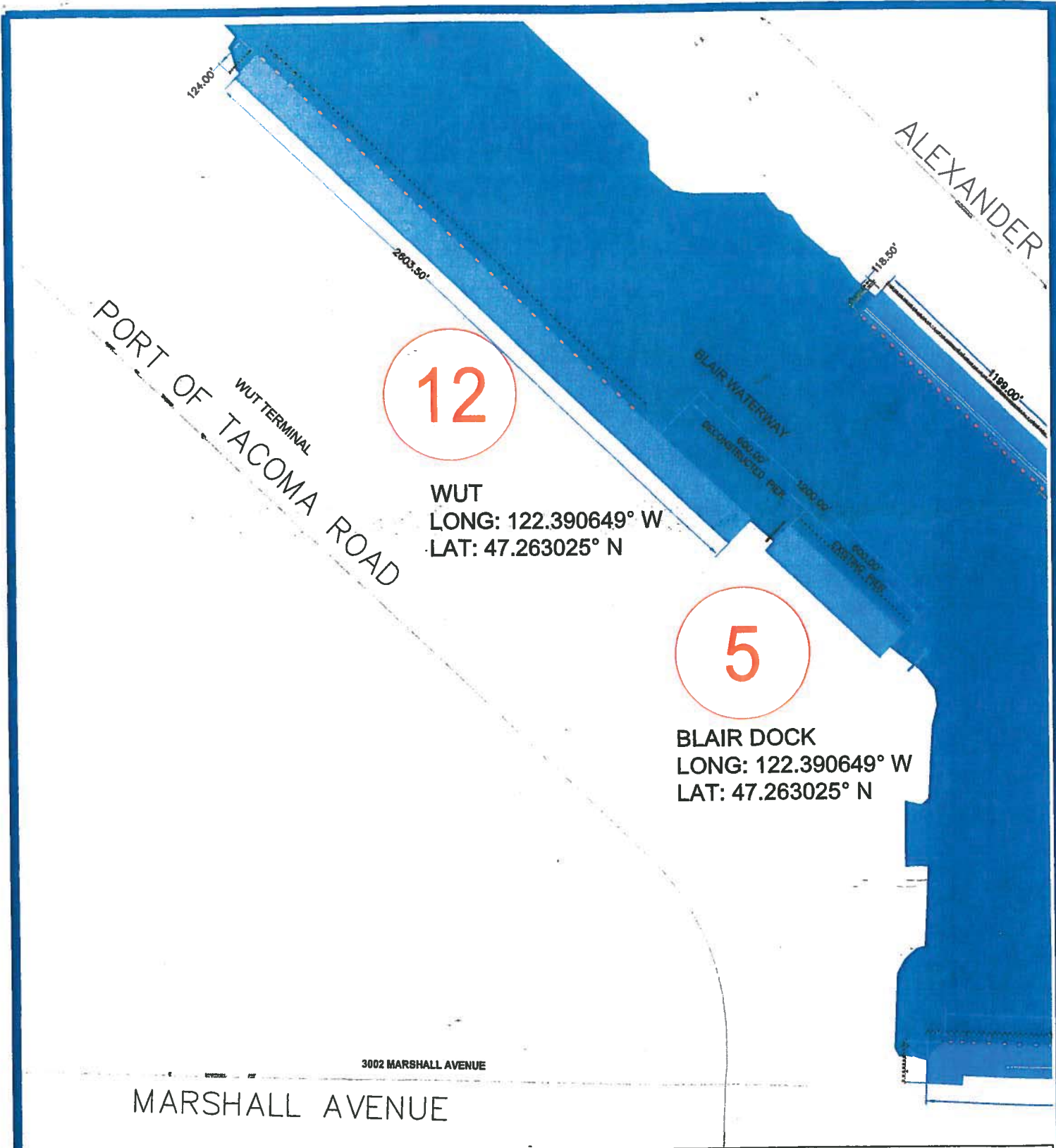
**PORT OF TACOMA**  
P.O. BOX 1837 TACOMA, WA 98401  
(253)383-8841

FIGURE

04

STATE: WA  
COUNTY: PIERCE  
CITY/PORT: PORT OF TACOMA  
LOCATION: PORT OF TACOMA  
PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
SHEET: 4 OF 10  
REVISED 07/02/2012



12

WUT  
 LONG: 122.390649° W  
 LAT: 47.263025° N

5

BLAIR DOCK  
 LONG: 122.390649° W  
 LAT: 47.263025° N

DATE OF PRINT: Oct 07, 2011 4:09:32pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

12 WUT  
 5 BLAIR DOCK

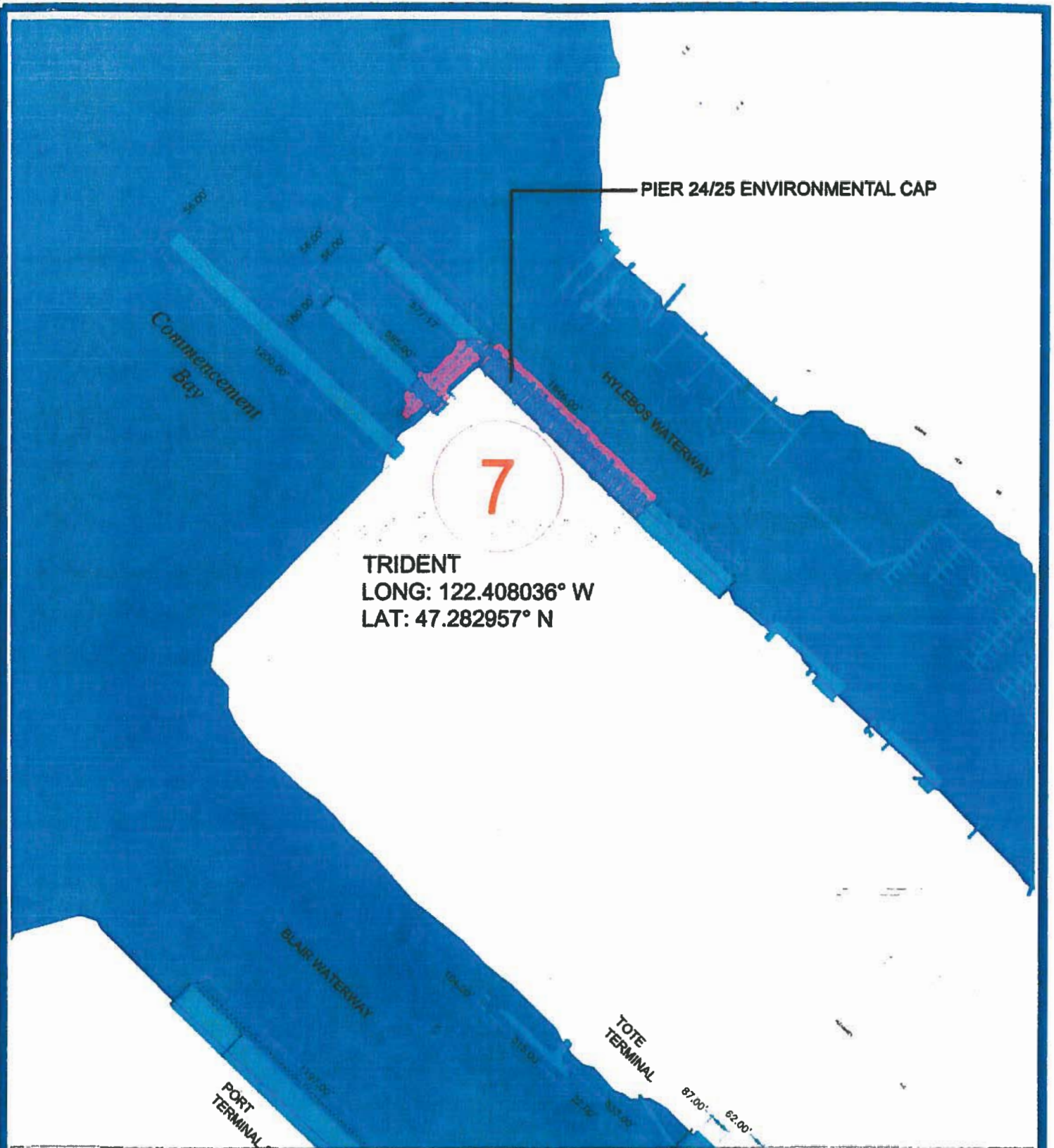
Reference: NWS-2011-0089-WRD  
 0' 500' 1000'



PORT OF TACOMA  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

FIGURE 05

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT  
 PROJECT NO: N/A  
 SHEET: 5 OF 10  
 DATE: 7/02/12



**TRIDENT**  
 LONG: 122.408036° W  
 LAT: 47.282957° N

PIER 24/25 ENVIRONMENTAL CAP

7

DATE OF PRINT: Nov 22, 2011 7:48:35am - BY: bercher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

**TRIDENT**

Reference: NWS-2011-0089-WRD

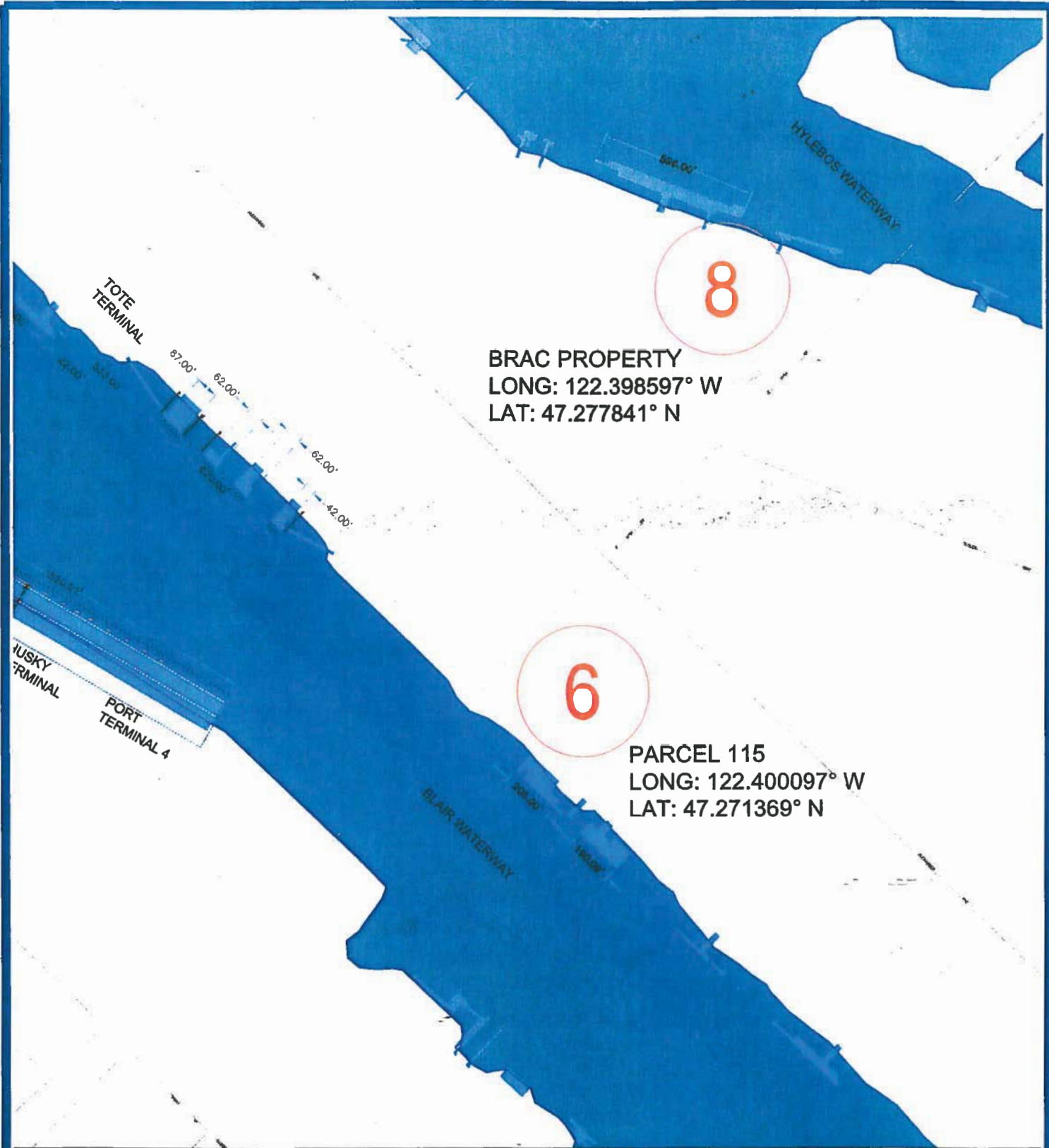
**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

**FIGURE 06**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT  
 PROJECT NO: N/A  
 SHEET: 8 OF: 10

7/02/12  
 REVISED

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION



8

**BRAC PROPERTY**  
 LONG: 122.398597° W  
 LAT: 47.277841° N

6

**PARCEL 115**  
 LONG: 122.400097° W  
 LAT: 47.271369° N

DATE OF PRINT: Nov 22, 2011 7:49:02am - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

8 BRAC PROPERTY  
 6 PARCEL 115

Reference: NWS-2011-0089-WRD

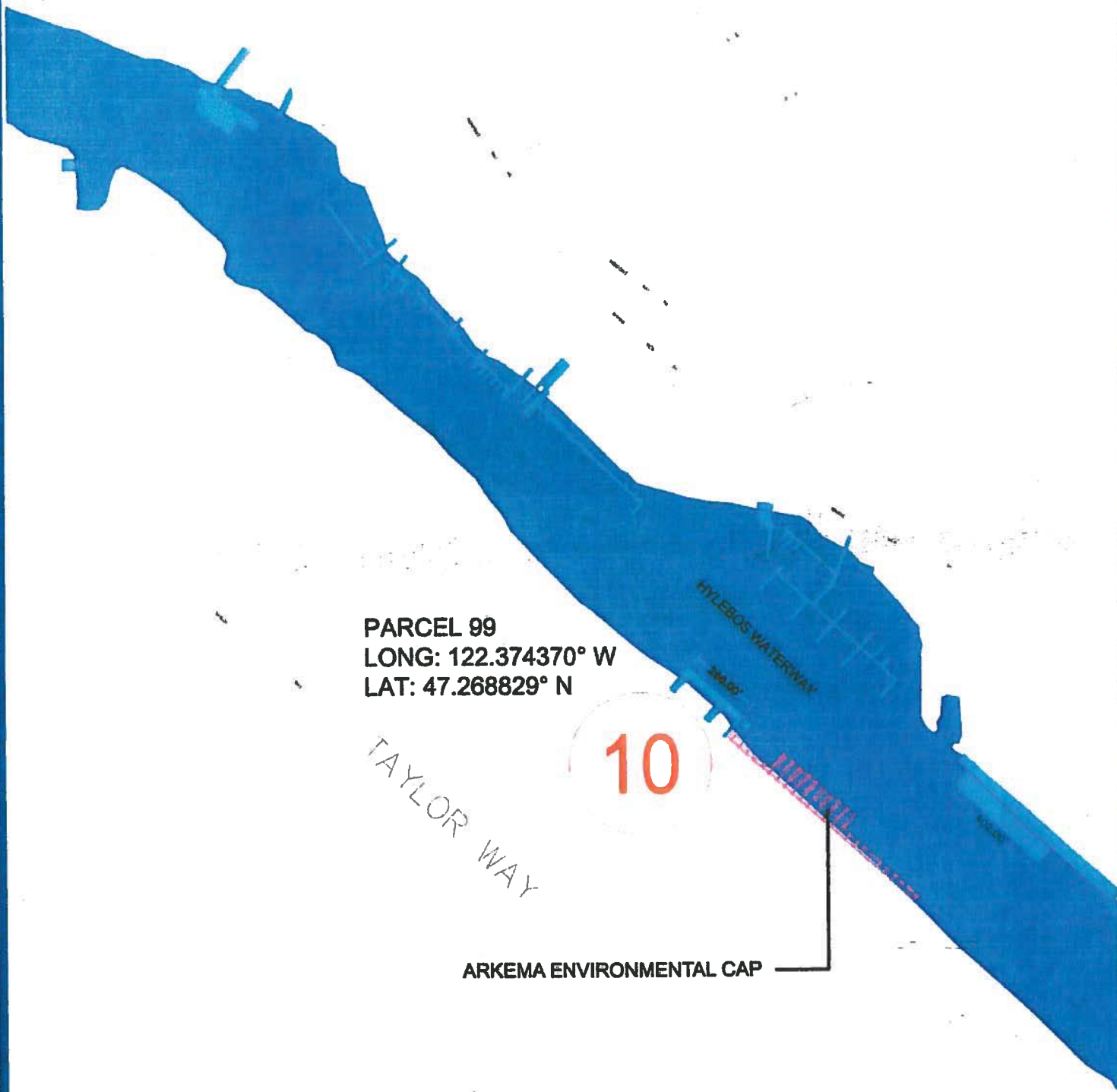
0' 500' 1000'



**FIGURE** 07

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 7 OF: 10  
 DATE: 7/02/12



**PARCEL 99**  
**LONG: 122.374370° W**  
**LAT: 47.268829° N**

TAYLOR WAY

10

ARKEMA ENVIRONMENTAL CAP

DATE OF PRINT: Nov 22, 2011 7:49:30am - BY: barcher - FILE LOCATION: L:\PTec Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

10 **PARCEL 99**  
 Reference: NWS-2011-0089-WRD

**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)363-5841

**FIGURE 08**  
 STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROGRAM  
 PROJECT NO: N/A  
 SHEET: 8 OF: 10  
 REVISION: 7/02/12

MARINE VIEW DRIVE

PARCEL 105  
LONG: 122.365105° W  
LAT: 47.263186° N

11

9

PARCEL 86  
LONG: 122.361809° W  
LAT: 47.261298° N

HYLEBOSS WATERWAY

DATE OF PRINT: Nov 22, 2011 7:50:00am - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

11 PARCEL 105  
9 PARCEL 86  
Reference: NWS-2011-0089-WRD  
0' 500' 1000'

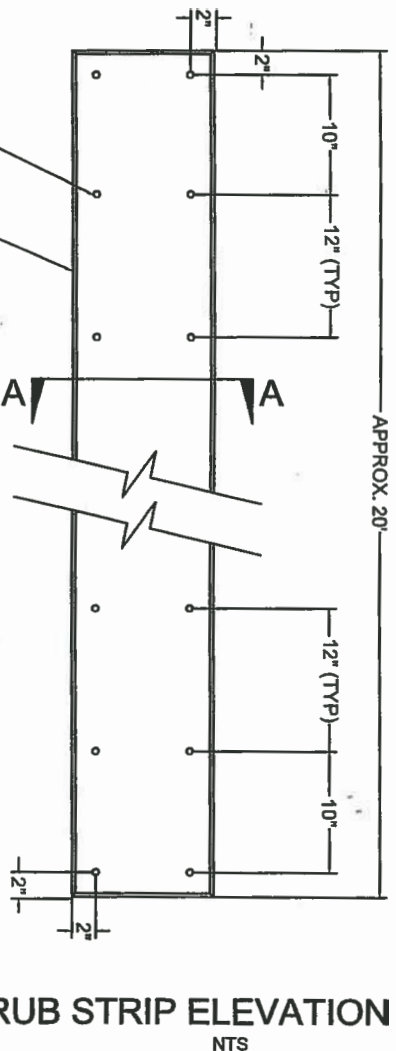


PORT OF TACOMA  
P.O. BOX 1837 TACOMA, WA 98401  
(253)383-5841

FIGURE 09

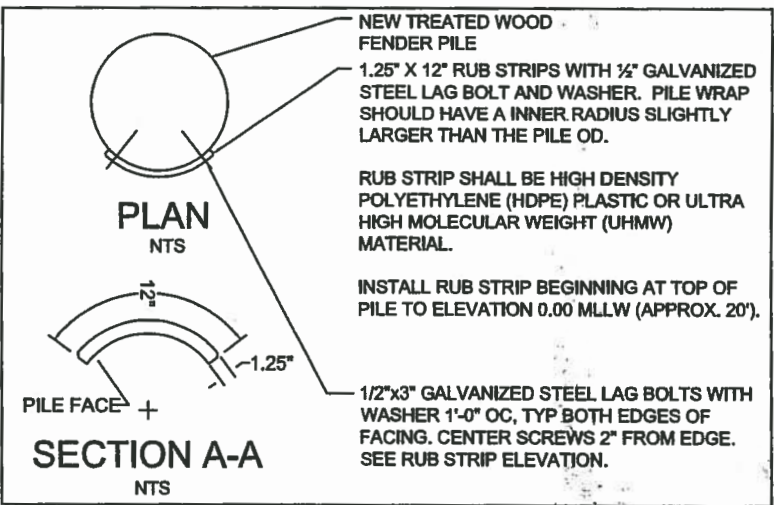
STATE: WA  
COUNTY: PIERCE  
CITY/PORT: PORT OF TACOMA  
LOCATION: PORT OF TACOMA  
PURPOSE: PILING REPLACEMENT PROGRAM  
PROJECT NO: N/A  
SHEET: 9 OF: 10  
DATE: 7/02/12





0.563" THROUGH HOLE (TYP).  
 0.5"x0.5" CHAMFER ALL OUTBOARD EDGES (TYP).

TOP OF FENDER PILE  
 WOOD OR CONCRETE STRUCTURAL PILE  
 RUB STRIP FACING (SEE DETAIL BELOW).  
 ELEV. = 00.00 (M.L.L.W.)  
 NEW ACZA TREATED WOOD FENDER PILE



TYP. FENDER SECTION  
 NTS

ELEV. = -51.00 SITCUM OR BLAIR WATERWAY  
 ELEV. = -30.00 HYLEBOS WATERWAY

DATE OF PRINT: Oct 07, 2011 22:28:03pm - BY: bender - FILE LOCATION: L:\PTac Project\11 General Project\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Typical Section.dwg

Reference: NWS-2011-0089-WRD



PORT OF TACOMA  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

FIGURE

10

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT  
 PROJECT NO: N/A  
 SHEET: 10 OF 10

DATE: 7/02/12



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000

711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

August 29, 2012

Port of Tacoma  
Attn: Mr. Mark Rettmann  
PO Box 1837  
Tacoma WA 98401-1837

RE: Water Quality Certification - Order #9244/Corps Public Notice # NWS-2011-0089-  
WRD – Programmatic Piling Repair Project

Dear Mr. Rettmann:

The above-referenced public notice for proposed work in waters of the state has been reviewed in accordance with all pertinent rules and regulations. On behalf of the State of Washington, we certify that the work proposed in the public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and other appropriate requirements of State law. This certification is subject to the conditions contained in the enclosed Order and may be appealed by following the procedures described in the Order.

Please note that this Order does not cover CERLCA coordination, which will be conducted as part of the Corps of Engineers 404 process, and may have additional monitoring or sampling requirements dependent on location and numbers of pilings being removed.

If you have any questions concerning the content of this letter, please contact Helen Pressley at (360) 407-6076.

Sincerely,

Brenden McFarland, Section Manager  
Shorelands & Environmental Assistance Program  
Headquarters Office - Ecology  
State of Washington



Order #9244 Corps # NWS-2011-089-WRD  
Page 2 of 2  
August 29, 2012

by Certified Mail 7010 2780 0000 2503 4195

Enclosure  
Attachment

cc: Olivia Romano, Corps  
Chris Waldbillig, WDFW

ecc: Loree' Randall, Ecology  
Helen Pressley, Ecology  
Laura Inouye, Ecology  
Alex Callender, Ecology  
DMMP@dnr.wa.gov  
[ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

**IN THE MATTER OF GRANTING A ) ORDER #9244**  
**WATER QUALITY ) Corps Reference No. NWS-2011-0089-WRD**  
**CERTIFICATION TO ) Programmatic maintenance, repair, and**  
**PORT OF TACOMA ) replacement of up to 200 pilings per year**  
in accordance with 33 U.S.C. 1341 ) throughout the Port of Tacoma property in  
(FWPCA § 401), RCW 90.48.120, RCW ) Tacoma, Pierce County, Washington  
90.48.260 and Chapter 173-201A WAC )

TO: Port of Tacoma  
Attn: Mr. Mark Rettmann  
PO Box 1837  
Tacoma WA 98401-1837

On March 23, 2011 the Port of Tacoma submitted a Joint Aquatic Resources Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification. A joint public notice regarding the request was distributed by the Army Corps of Engineers (Corps) for the above-referenced project pursuant to the provisions of Chapter 173-225 WAC on February 3, 2012.

The proposed work will include maintenance activities at 11 wharf/pier structures over a five year period. Work includes the replacement of up to 200 piles per year (fender piles, dolphin piles, and/or support), and associated pile caps, chocks, whalers, and rub strips at structures located at AMP Terminals, Terminal 7, Olympic Container Terminal, Husky Terminal (Terminal 3 and 4), Blair Dock, Trident Piers 24 and 25, BRAC, Parcel 86, Parcel 99, Parcel 105, and Parcel 115.

Replacement piles would range from 18-inch diameter to 24-inch diameter and include ACZA-treated wood and concrete piles. Piles would be extracted with a vibratory hammer or by pulling with a choke chain. Piles that break during extraction would be cut off 3-feet 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. New piles would be installed with a vibratory hammer. However, some piles may be proofed with an impact hammer and in some instances may be entirely installed with an impact hammer. Up to 1,000 piles could be replaced and up to 600 cubic yards of sand could be placed over the five year period. Work will be done in Hylebos, Blair, and Sitcum Waterways, and Commencement Bay, in Tacoma, Pierce County, Washington.

**AUTHORITIES:**

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, 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. §1311, 1312, 1313, 1316, and 1317 (FWPCA § 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 meet the 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. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Headquarters Office, Attn: 401/CZM Federal permit coordinator, P.O. Box 47600 Olympia, WA 98504-7600 and/or hpre461@ecy.wa.gov. Any submittals shall reference Order #9244 and Corps Reference # NWS-2011-0089-WRD.
3. Work authorized by this Order is limited to the work described in the Joint Aquatic Resources Permit Application (JARPA) received by Ecology on March 23, 2011. The Applicant will be out of compliance with this Order and must submit an updated JARPA if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.
4. Within 30 days of receipt of an updated JARPA, 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.
5. This Order shall be rescinded if the U.S. Army Corps of Engineers does not issue an individual 404 and/or Section 10 permit for the project.

6. 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.
7. The Applicant shall provide access to the project site upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
8. 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. Furthermore, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified or if additional conditions are necessary to further protect water quality.
9. 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 permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins at the project.
10. 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.
11. 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 its terms.

**B. Water Quality Conditions:**

1. This order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-210(1)(e)(i).
  - The area of mixing established for marine waters is a 150 foot radius surrounding the in-water activity. Turbidity occurring outside that zone that is more than 5 nephelometric turbidity units (NTU) over background when the background is 50 NTU or less, or a 10% increase in turbidity when the background turbidity is more than 50 NTU is a violation of the turbidity water quality standard.

**C. Water Quality Monitoring:**

1. Turbidity shall be monitored visually in all areas, except those in or adjacent to CERCLA clean-up areas (condition C.2. of this certificate). Visible turbidity anywhere at or beyond the 150 ft point of compliance from the activity shall be considered to be an exceedance of the standard. Visual monitoring shall be conducted during all in-water activities.
2. Turbidity monitoring within CERCLA clean-up areas shall be conducted in accordance to an approved water quality monitoring plan. The Applicant shall submit a water quality monitoring plan (see condition A2) at least 30 days prior to in-water activities. The water quality monitoring plans shall be approved by Ecology prior to start of any in-water work. These areas include:
  - a) Area 4, which is adjacent to the Slip 4 CERCLA cleanup.
  - b) Area 7 which includes piling removals in Parcel 99-Arkema Chemicals, a completed CERCLA cleanup.
  - c) Area 8 which is adjacent to the Trident Piers 24/25 CERCLA cleanup.
  - d) Area 10 which is adjacent to the BRAC Navy CERCLA cleanup.
3. Turbidity monitoring reports shall be sent weekly to the 401/CZM Federal permit coordinator at the address or e-mail in A2. The permit coordinator shall be contacted within 24 hours if an exceedance occurs.

**D. Piling Replacement and Repair:**

1. All work shall be done so as to minimize turbidity, erosion, and other water quality impacts.
2. During pile removal and pile driving, a containment boom shall be placed around the perimeter of the work area to capture wood debris and other materials released into the water as a result of project activities. All accumulated debris shall be collected and disposed of upland at an approved disposal site. Absorbent pads shall be deployed should any sheen be observed.
3. The Applicant shall use tarps or other containment methods when cutting, drilling, or construction over-water to prevent debris, sawdust, concrete rubble, and other materials from entering the water.
4. Machinery and equipment used during piling removal and replacement shall be serviced, fueled, and maintained on uplands wherever possible in order to prevent contamination of surface water. Where practicable, machinery and equipment used during project activities shall use biodegradable hydraulic fluid.

5. Where possible, work shall be prioritized by the severity of the problem so that water quality can be protected.
6. The work surface on the uplands or barge shall include a containment basin for piles and any liquid or sediment removed during pulling of the piling. Basins may be constructed of durable plastic sheeting with sidewalls supported by hay bales or support structure to contain all sediment and liquid. Water left in the basins shall not be discharged into waters of the state.
7. Piles removed from substrate shall be moved immediately from the water onto the upland or barge. The pile shall not be shaken, hosed-off, left hanging to drip or any other action intended to clean or remove adhering material from the pile. All excavated piles shall be disposed of at an approved upland disposal site.
8. The Applicant shall deploy a bubble curtain or other BMP(s) to protect marine life while placing or proofing new piling.
9. During dredging, the Applicant shall have a boat available on site at all times to retrieve debris from the water.

**E. Timing Requirements:**

1. All in-water work shall be completed by the work window identified in the most current HPA issued for this project. Any project change that requires a new or revised HPA should also be sent to Ecology for review.
2. This Order shall remain in effect for a period of 5 years from date of issuance.

**F. Notification Requirements:**

1. The Applicant shall provide notice to Ecology's 401/CZM Federal permit coordinator at least 7 days prior to the start of maintenance, repairs, or installation of new tide gates and within 14 days after completion of work at the last project site every year this permit is in force. Notification should be made using all the information required in Condition A2.
2. The Applicant shall provide to Ecology a yearly report by January 31 of the following year. This report shall include details of the outfalls worked on in the previous year including photos, details of any problems and how they were solved, and a list of the outfalls planned to be cleaned in the next calendar year.

**G. Emergency/Contingency Measures:**

1. The Applicant shall develop a spill prevention and containment plan for this project, and shall have spill cleanup materials and an emergency call list available on site.



2. Any work that is out of compliance with the provisions of this Order, or conditions causing distressed 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 measures to correct the problem and/or prevent further environmental damage.
  - c. In the event of finding distressed or dying fish, the applicant 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 the applicant is instructed by Ecology on what to do with them. Ecology may require analyses 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 1-800-258-5990, and within 24 hours of spills or other events Ecology's 401/CZM Federal permit coordinator at (360) 407-6076.
  - 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 to be taken to prevent a recurrence, results of 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, including wetlands.
4. If at any time during work the proponent 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 all of the following within 30 days of the date of receipt of this Order:

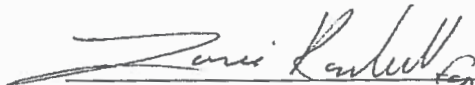
- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

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

**ADDRESS AND LOCATION INFORMATION**

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

DATED August 29, 2012 at Olympia, Washington.

  
Brenden McFarland, Section Manager  
Shorelands & Environmental Assistance Program  
Headquarters Office – Ecology  
State of Washington

**ATTACHMENT A**

**Port of Tacoma  
Programmatic Stormwater Outfall Repairs  
Water Quality Certification Order #9244**

**Statement of Understanding of  
Water Quality Certification Conditions**

I have read and understand the conditions of Order #9244 Section 401 Water Quality certification for programmatic stormwater outfall repairs. I have also read and understand all permits, plans, documents, and approvals associated with the project referenced in this order.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Company

\_\_\_\_\_  
Title



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 25 2012

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. Date work complete: _____
<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). Date work complete: _____
<input type="checkbox"/>	Photographs and as-built drawings of the mitigation (OPTIONAL, unless required as a Special Condition of the permit).

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# HYDRAULIC PROJECT APPROVAL

Washington Department of  
Fish & Wildlife  
PO Box 43234  
Olympia, WA 98504-3234  
(360) 902-2200

Issued Date: March 10, 2016  
Project End Date: February 15, 2018

Permit Number: 2016-6-119+01  
FPA/Public Notice Number: N/A  
Application ID: 7030

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Port of Tacoma ATTENTION: Jennifer Stebbings PO Box 1837 Tacoma, WA 98401-1837	

**Project Name:** Programmatic Piling Replacement and Repair Program

**Project Description:** Load-bearing and fender piling may be damaged by the impact of ships against the piling or the pier faces, or through the actions of marine borers, necessitating their replacement to prevent further damage to the pier. Without replacement of damaged pile, the docks and piers could quickly degrade to the point that they are no longer useful, or become dangerous to human health and safety. Annual maintenance is required and piling will be 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 (Port). The number and location of piling replaced annually is dependent upon the number damaged in the preceding year, and the locations of the damaged piling. Annualized replacement rates give an estimate of the annual replacement average, though the actual number may be higher or lower in a given year. The annualized replacement rates are included in the attached copy of the 2011 JARPA for the Port's programmatic pile program, previously approved by WDFW. As the numbers may vary from the annualized replacement rates, no more than 200 piles will be replaced in a single year under this application.

## 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 16 and February 14 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 Programmatic Piling Replacement and Repair Program, dated 3/3/2016, 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 JARPA/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](mailto: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



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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 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.wwpinstitute.org](http://www.wwpinstitute.org).

## PILE REMOVAL, DRIVING

17. Remove the existing piling and dispose of them in an upland area above extreme high tide waters.



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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.
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:
- Greater than or equal to 206 dB (one micropascal squared per second) peak,
  - 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
  - Greater than or equal to 183 dB (one micropascal squared per second) (SEL) for fish less than 2 grams.
  - 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.
- 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.
  - 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:
- Vibratory or water jet extraction is the preferred method of pile removal.
  - 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.
  - 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.
  - 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. Reshape beach area depressions created during project activities to preproject beach level upon project completion.



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28. Remove all debris or deleterious material resulting from construction from the beach area or bed and prevent from entering waters of the state.

29. 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 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: , , WA						
WORK START: March 10, 2016			WORK END: February 15, 2018			
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
						Pierce
<u>Location #1 Driving Directions</u>						

## 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.





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Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day and/or a gross misdemeanor 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.

**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. 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. Minor modifications do not require you to pay additional application fees or be issued a new HPA. 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](mailto:HPAapplications@dfw.wa.gov). Do not include payment with your request. 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 paid an application fee for your original HPA you must pay an additional \$150 for the major modification. If you did not pay an application fee for the original HPA, no fee is required for a change to it. 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, payment if the original application was subject to an application fee, and the requestor's signature. Send your written request and payment, if applicable, 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](mailto:HPAapplications@dfw.wa.gov), but must send a check or money order for payment by surface mail. You should allow up to 45 days for the department to process your request.

### APPEALS INFORMATION



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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.

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, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to [HPAapplications@dfw.wa.gov](mailto: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 will conduct an informal hearing 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, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to [HPAapplications@dfw.wa.gov](mailto: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.

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Habitat Biologist      matthew.curtis@dfw.wa.gov  
Matthew Curtis        360-902-2578

A handwritten signature in black ink, appearing to be "M. Curtis".

for Director  
WDFW

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**Tacoma** City of Tacoma  
Planning and Development Services

January 3, 2014

Mark Rettmann  
Port of Tacoma  
P.O. Box 1837  
Tacoma, WA 98401-1837

*also via electronic mail*

RE: Port of Tacoma Programmatic Piling Repair and Maintenance  
Shoreline Substantial Development Permit Exemption  
File No. SHR2013-40000215154

Dear Mr. Rettmann:

We have received and reviewed the JARPA and application letter for the above-noted proposal for the routine repair, maintenance, and replacement of piling at 12 sites throughout the Port of Tacoma over the next five years (see Attachment "A"). This request requires a Shoreline Substantial Development Permit Exemption and Critical Area Review pursuant to *Tacoma Shoreline Master Program (TSMP)* Chapter 2.3.3 as allowed per WAC 173-27-040 2(b). The *TSMP* allows that exemptions are typically valid for one year from issuance; however, longer periods may be allowed based upon the specifics of the proposal (Chapter 2.3.4).

**Proposal**

The specific request is for the repair and/or replacement of up to 200 damaged or broken fender and structural pile at the twelve identified sites. This would include pile caps, chokes, and whalers along with the piling itself. The purpose of the project is to maintain the integrity of existing pier, wharf, and fendering systems at Port properties, in support of water-dependent port and industrial activities as allowed in the "S-10" Shoreline District – Port Industrial.

As you have stated in the JARPA, the work will be conducted as follows:

- All work will occur within the authorized in-water work window;
- Pile removal BMPs may include the following:
  - Use of debris boom around the work area
  - Use of an absorbent boom
  - Cutting or driving broken pile below the mudline;
- Wood piling may be replaced with approved treated wood piling. All treated wood replacement piling will undergo required BMPs for treatment prior to placement in water;
- Concrete piling will be replaced with concrete piling which may be driven using a wood pillow atop;
- All fender piling will have an approved plastic rub strip fastened to the exposed face to prevent frictional losses of treated wood due to vessel movement;
- The contractor will have a spill containment kit on site; and
- No alteration of the existing bank/shoreline is proposed, nor will there be any dredging or filling associated with this project

### **Site Description (General)**

The sites are located within the “S-10” Shoreline District - Port Industrial and the “S-13” Shoreline District - Marine Waters of the State. The intent of the “S-10” is to allow the continued development of the Port industrial Area, with an increase in the intensity of development and a greater emphasis on terminal facilities within the City. The intent of the “S-13” is to maintain these water bodies for the use by the public for navigation, commerce and recreation purposes and to manage in-water structures in a consistent manner throughout the City’s shorelines. All sites are currently developed with water-dependent port and industrial uses, including shipping terminals.

The sites all include work within the required 50-foot marine buffer per *TSMP* 6.4.3, and therefore require Critical Areas review. The proposal and historic permitting records were reviewed by Karla Kluge, Senior Environmental Specialist, for compliance with the provisions of the *TSMP* for critical areas within the shoreline. Ms. Kluge has concluded that the request meets the requirements for a repair and maintenance exemption. Ms. Kluge’s technical memorandum is included as Attachment “B” to this letter; conditions and advisory comments have been included herein.

### **Shoreline Substantial Development Permit Exemption**

Repair and maintenance actions associated with existing structures and developments including acts to prevent a decline, lapse, or cessation from a lawfully established condition are listed as exempt from a Substantial Development Permit according to the *Tacoma Shoreline Master Program (TSMP)* Chapter 2.3.3. Section 2.3.3(1) notes “an exemption from the Substantial Development Permit requirements does not constitute an exemption from the policies and use regulations of the Shoreline Management Act (*SMA*), the provisions of this Master Program (*TSMP*), and other applicable City, state, or federal permit requirements”.

*Shoreline Management Act – RCW 90.58.020* sets forth the policy and priorities of the *SMA*. Within this section, development priority is allowed for Port uses, with an emphasis on best management practices to protect environmental functions of the shorelines. Given that the purpose of the proposal is to preserve established Port activities, and that all BMPs for repair and replacement will be followed, the request is in compliance with the stated goals and policies of the *SMA*.

*TSMP* – The Master Program sets forth allowed uses for the “S-10” District in Chapters 6.1, 7.6, and 9.12. Port activities – including shipping terminals – and the maintenance and repair thereof are allowed development activities within that district. Work within the “S-13” District is allowed in conjunction with permitted uses and activities at the upland locations. The applicant will meet all requirements of the *TSMP* and will pursue all required permits prior to starting work.

*Other Permits – WAC 197-11-800(3)* allows for SEPA exemptions for repair and replacement of existing development. This includes repair or replacement of piling, provided all other codes are complied with. The City of Tacoma will require building permits for some of the proposed work; you will need to obtain permits as necessary. Further, work will require permits from state and federal agencies; permitting is the responsibility of the applicant. You have indicated that you will comply with all other permitting requirements.

### **Conditions and Advisory Notes**

The proposed activities are consistent with the applicable regulations, plans, and policies of the City of Tacoma. Furthermore, the Shoreline Management Act (*SMA*) allows certain activities to be exempt from the Shoreline Substantial Development Permit requirements. Based on the above findings, the proposed exemption to the City’s Shoreline Substantial Development Permit requirement is consistent with the policies of the *SMA*, the policies and implementing

regulations of the *TSMP* and with the criteria set forth in the *WAC* and *RCW* for the authorization of such permits.

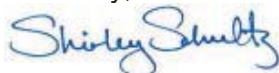
1. Replacement pilings shall be replaced on a one-to-one ratio with replacement pilings of the same or smaller diameter.
2. The applicant shall follow all proposed installation and construction methods and best management practices for minimizing unintended impacts during the repair and maintenance of the dock while installing and removing the piles. No construction materials or debris shall be allowed to enter the Waters of the State.
3. Construction material or debris shall be promptly removed and disposed of in an appropriate upland location.
4. All work must be completed within the approved in-water work window designated by the Washington State Department of Fish and Wildlife (WDFW).
5. The applicant shall notify the City of Tacoma and pertinent state or federal agencies should an unexpected spill of fuel or other chemical into the waterway.
6. Prior to issuance of construction permits, a copy of all permits required by or approvals provided by Washington State Department of Fish and Wildlife (WDFW), Department of Ecology (DOE), and U.S. Army Corps of Engineers (USACE) shall be provided to the City.
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.

#### **Advisory Notes**

1. This permit is only applicable to the proposed project as described above and based upon the information submitted by the applicant. Modifications to this proposal and future activities or development within the regulated buffers may be subject to further review and additional permits as required in accordance with the *TSMP*.
2. The applicant must obtain other approvals prior to construction as required by other local, state and federal agencies. The City of Tacoma is not the only reviewing agency with jurisdiction over the project area. The Army Corps of Engineers and State Department of Fish and Wildlife have requirements regarding work within regulated waters that may be applicable to the project.

This letter of exemption is being issued per the provisions of the *Tacoma Shoreline Master Program* to comply with the requirements of *WAC* 173-27-040 and *WAC* 173-27-050. Should you have any further questions or requests please do not hesitate to contact me at 253-591-5121.

Sincerely,



Shirley Schultz  
Principal Planner

cc via electronic mail:

Planning and Development Services, Peter Huffman, Reuben McKnight, Karla Kluge  
Washington Department of Ecology, Shorelands & Environmental Assistance Program, Alex Callender, SWRO, P.O. Box 47775, Olympia, WA 98504-7775 (acal461@ecy.wa.gov)  
Washington Department of Fish and Wildlife, Leonard Machut, 450 Port Orchard Boulevard, Suite 290, Port Orchard, WA 98366 (Leonard.Machut@dfw.wa.gov)  
U.S. Army Corps of Engineers, Attn: Regulatory Branch, CENWS-OD-RG ATTN: Lori Lull, P.O. Box C-3755, Seattle, WA 98124 (Lori.C.Lull@usace.army.mil)  
U.S. Fish & Wildlife Service, Attn: Judy Lantor, 510 Desmond Drive SE #102, Lacey, WA 98503 (judy\_lantor@fws.gov)

**Attachment "A" – Pile Repair/Replacement Sites**

<b>Parcel Number</b>	<b>Address</b>	<b>Waterway</b>	<b>Project Site</b>	<b>Critical Areas reviewed under permit number</b>
<b>2275200610</b>	1001 Port of Tacoma Rd	Blair	Husky Terminal	SHR2010-40000151874
<b>0321353016</b> <b>0321353014</b>	1815 Port of Tacoma Rd	Blair	Blair Dock	SHR2008-40000122326 SHR2009-40000127732
<b>0321354035</b>	2940 E Alexander Ave	Blair	Blair Dock (Additional Site 5) WUT	SHR2010-40000156509
<b>2275200633</b>	710 Port of Tacoma Rd 2209 East 11 <sup>th</sup> Street	Sitcum	Terminal 7 & OCT	WET2010-40000141569 WET2010-40000138380
<b>0321351053</b>	2901 Taylor Way	Hylebos	Parcel 99	SHR2008-40000114953
<b>0321364024</b>	3701 Taylor Way	Hylebos	Parcel 86	WET2008-40000125347
<b>5000350013</b>	300 E Alexander Ave	Hylebos	Trident	SHR2009-40000130175
<b>2275200292</b>	1110 E Alexander Ave	Blair	Parcel 115	SHR2009-40000130175
<b>2275200502</b>	1001 E Alexander Ave	Hylebos	BRAC	SHR2010-40000156509
<b>2275200620</b> <b>8950000061</b>	1901 E 11 <sup>th</sup> Street 1002 Milwaukee Way	Sitcum	APM Terminals	SHR2010-40000156509
<b>0321362046</b>	3401 Taylor Way	Hylebos	Parcel 105	WET2010-4000146808



**City of Tacoma  
Planning and  
Development Services**

**Technical Memorandum**

**TO:** Shirley Schultz, Principal Planner

**FROM:** Karla Kluge, Senior Environmental Specialist

**SUBJECT:** **Port of Tacoma Programmatic Piling Repair and Maintenance  
Shoreline Substantial Development Permit Exemption  
File No. SHR2013-40000215154**

**DATE:** January 2, 2013

**Project Description**

The applicant has applied for a Shoreline Substantial Development Permit Exemption for support piling maintenance and repair. The applicant is requesting an annual maintenance exemption to replace up to 200 damaged or broken fender and structural piling. This exemption will cover the pile, pile caps, chokes, and whalers at 12 wharf/dock facilities. An exemption previously issued included 11 sites. An additional site at the Blair Dock (site 5) is also included under this request.

Note: An identical exemption request was previously analyzed by the City's Environmental Specialist, Misty Blair. A new Shoreline Master Program and Code (TSMP) was recently adopted and approved by the Department of Ecology necessitating an updated review and analysis under the recently approved TSMP. This Technical Memorandum contains similar information contained within the previous analysis and was prepared in collaboration with Ms. Blair.

The applicant asserts that this maintenance project is necessary to maintain the structural integrity of the pier, wharf or fendering system the piling supports. The subject sites are located along the Blair, Hylebos and Sitcum Waterways within the S-10 Shoreline District. The subject sites are currently used by Port of Tacoma or their various tenants in a commercial capacity. As described by the applicant, the pier/wharf/dock structures are located on the following parcels:

<b>Parcel Number</b>	<b>Address</b>	<b>Waterway</b>	<b>Project Site</b>	<b>Critical Areas reviewed under permit number</b>
<b>2275200610</b>	1001 Port of Tacoma Rd	Blair	Husky Terminal	SHR2010-40000151874
<b>0321353016</b> <b>0321353014</b>	1815 Port of Tacoma Rd	Blair	Blair Dock	SHR2008-40000122326 SHR2009-40000127732
<b>0321354035</b>	2940 E Alexander Ave	Blair	Blair Dock (Additional Site 5) WUT	SHR2010-40000156509
<b>2275200633</b>	710 Port of Tacoma Rd 2209 East 11 <sup>th</sup> Street	Sitcum	Terminal 7 & OCT	WET2010-40000141569 WET2010-40000138380
<b>0321351053</b>	2901 Taylor Way	Hylebos	Parcel 99	SHR2008-40000114953
<b>0321364024</b>	3701 Taylor Way	Hylebos	Parcel 86	WET2008-40000125347



<b>5000350013</b>	300 E Alexander Ave	Hylebos	Trident	SHR2009-40000130175
<b>2275200292</b>	1110 E Alexander Ave	Blair	Parcel 115	SHR2009-40000130175
<b>2275200502</b>	1001 E Alexander Ave	Hylebos	BRAC	SHR2010-40000156509
<b>2275200620</b>	1901 E 11 <sup>th</sup> Street	Sitcum	APM	SHR2010-40000156509
<b>8950000061</b>	1002 Milwaukee Way		Terminals	
<b>0321362046</b>	3401 Taylor Way	Hylebos	Parcel 105	WET2010-4000146808

As described by the applicant, this project will utilize the following precautions and should have no negative impact on the FWHCA or the associated marine buffer:

- All work will occur within the authorized in-water work window
- Pile removal BMPs may include the following:
  - Use of debris boom around the work area
  - Use of an absorbent boom
  - Cutting or driving broken pile below the mudline
- Wood piling maybe replaced with approved treated wood piling. All treated wood replacement piling will undergo required BMPs for treatment prior to placement in water
- Concrete piling will be replaced with concrete piling which may be driven using a wood pillow atop
- All fender piling will have an approved plastic rub strip fastened to the exposed face to prevent frictional losses of treated wood due to vessel movement
- The contractor will have a spill containment kit on site
- No alteration of the existing bank/shoreline is proposed, nor will there be any dredging or filling associated with this project

**Documents provided to the City**

The applicant submitted the following reports and supporting documents:

- Shoreline Substantial Development Permit Exemption (SHR2011-400000158452) and Critical Areas Preservation Ordinance Exemption (WET2011-40000160132)
- Original JARPA with Plan/Figures
- Exemption Request Letter dated December 23, 2013

**Findings**

1. The following Shoreline and Critical Areas permit files and previous Wetland/Stream/FWHCA site reviews and information are applicable to this exemption request:  
  
SHR2000-00033, SHR2005-40000061724, SHR2008-40000114953, SHR2008-40000122326, WET2008-40000125347, SHR2009-40000127732, SHR2009-40000130175, WET2010-40000138380, SHR2010-40000146808, SHR2010-40000151874, WET2010-40000141569 and SHR2010-40000156509.
2. These sites are developed and the proposal will not increase this intensity or create additional permanent impacts. This maintenance and repair work is taking place water-ward of the Ordinary High Water Mark (OHWM). The shoreline itself is armored with existing concrete bulkheads, rip rap or other protective measures along

the shore. As described by the applicant these facilities contain a total of approximately 20,000 piling, therefore the proposal is for an annual replacement of 1% of the total pile. This seems to be a reasonable estimation of the needed annual replacement rate for facilities of this size. In addition, these wharfs, docks, and piers are utilized for industrial shipping needs and subject to damage from impacts of marine vessels and/or floating debris as well as typical deterioration.

3. The applicant identified the following listed threatened and endangered species as occurring within the vicinity of the project area: Chinook salmon, steelhead, bull trout, marbled murrelet, bald eagles, stellar sea lion, and orca. Additionally the applicant identified that rockfish may be present further out in Commencement Bay. The applicant goes on to state that no priority habitats are present within the project area and the proposed work is extremely unlikely to impact any priority species.

### **Applicable Tacoma Shoreline Master Program and Code (TSMP)**

4. The parcels referenced above are located within the S-10 Port Industrial Area Shoreline District and the S-13 Marine Waters of the State.
5. The intent of the S-10 Port Industrial Area Shoreline District is to allow the continued development of the Port industrial Area, with an increase in the intensity of development and a greater emphasis on terminal facilities within the City.
6. The intent of the S-13 Marine Waters of the State Shoreline District is to maintain these water bodies for the use by the public for navigation, commerce and recreation purposes and to manage in-water structures in a consistent manner throughout the City's shorelines.
7. *TSMP 6.4.3 requires a 50-foot marine buffer for S-10 Port Industrial Area Shoreline District.*
8. *Under TSMP 2.1, proposed actions that would alter designated critical areas or their buffers, as established by the Program (TSMP Section 6.4) shall be reviewed for compliance with the provisions of this program. An applicable critical area report and/or mitigation plan and/or habitat management plan shall be prepared consistent with the requirements of TSMP Section 2.4.2 and submitted as part of the development application or request for statement of exemption. The critical area review shall be conducted and processed in conjunction with the highest threshold of review that is applicable to the primary development proposed*
9. *Under TSMP 2.3.2 Exemptions from a Substantial Development Permit. All uses within shoreline jurisdiction must be consistent with the regulations of this Master Program whether or not they require a shoreline Substantial Development Permit. An exemption from the Substantial Development Permit requirements does not constitute an exemption from the policies and use regulations of the Shoreline Management Act, the provisions of this Master Program, and other applicable City, state, or federal permit requirements.*
10. *Under TSMP 2.3.4 Letter of Exemption, Exempt activities related to any of the following shall not be conducted until a letter of exemption has been obtained from the Director or designated signatory; dredging, flood control works, in-water*

*structures, archaeological or historic site alteration, clearing and ground disturbing activities such as filling or excavation, docks, shore stabilization, or activities deemed to be located within a critical area or buffer.*

11. *Under TSMP 2.3.3 (WAC173-27-040 (2)(b)(b)) Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. "Normal maintenance" includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment.*
12. *Under TMSP 6.4.4 Fish and Wildlife Habitat Conservation Areas (FWHCA's), lands containing priority habitats and species and critical saltwater habitats are classified as Fish and Wildlife Habitat Conservation Areas.*
13. *Under TMSP 6.4.4 FWHCA standards, Whenever activities are proposed within or adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report and habitat management plan prepared by a qualified professional and approved by the City. And, under TMSP 2.4.2, the Director shall determine whether these reports are necessary based upon the activities associated with the project.*

## **Conclusions**

14. The Blair, Hylebos and Sitcum Waterways are considered FWHCAs and as such are provided a 50 foot buffer per *TSMP 6.4.3*. In this case, the FWHCA and its buffer that are located within the shoreline district are eligible for the maintenance and repair exemption from the Shoreline Substantial Development Permit.
15. The new pile placement will occur as a pile for pile replacement and impacts will be temporary and limited during the active construction. Impacts that may occur will be unavailability of habitat due to noise and turbidity in the work zone. No permanent adverse impacts are anticipated. No new additional structures are proposed, and there is no expansion or increase to the water dependent use.
16. Species listed under the Endangered Species Act that may occur within the vicinity of the project include Puget Sound Chinook salmon (*Onchorhynchus tshawaytscha*), Coastal-Puget Sound bull trout (*Salvelinus confluentus*), Puget Sound Steelhead trout (*O. mykiss*), Stellar Sea Lion (*Eumetopias jubatus*), Southern Resident Killer Whale (*Orcinus orca*), Humpback whale (*Megaptera novaeangliae*), Leatherback Sea turtle (*Dermochelys coriacea*), Bocaccio (*Sebastes paucispinis*), Canary rockfish *S. pinniger*, and Yelloweye rockfish (*S. ruberrimus*).

17. Species that may be temporarily affected due to noise and turbidity include the Harbor Seal, Bald Eagle, Coho Salmon, Chum Salmon, and Pink Salmon.
18. The project site lies within an identified FEMA floodplain area (Commencement Bay); however, no vegetation removal or increase in impervious surface is proposed. Project impacts are being avoided and minimized; therefore no additional floodplain mitigation is required.
19. The applicant argues that the characteristic uses of the water body will not be adversely affected by the proposed project. All work within Commencement Bay will occur during in-water work windows approved by the Army Corps of Engineers, U.S. Fish and Wildlife Service, NOAA Fisheries, and Washington Department of Fish and Wildlife to avoid and minimize impacts on essential and designated habitats as well as fish, marine mammals, and avian species utilizing the coastal environment. Increases in water column turbidity caused by suspended sediments during pile removal and driving will be localized and temporary.
20. The project will not result in any permanent loss of habitat and will not compromise the fish and wildlife habitat conservation area or buffer functions; therefore no compensatory mitigation is required.
21. (WAC) 173-27-040(2)(b) exempts "Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements." Furthermore, (WAC) 173-27-040(2)(b) exempts "Replacement of a structure or development ... where such replacement is the common method of repair for the type of structure or development ... and the replacement does not cause substantial adverse effects to shoreline resources or environment." These repairs are considered typical and will conform to the size, shape, configuration, location and general appearance of the existing structures. The project (as described above) is generally consistent with the Shoreline Substantial Development Permit Exemption requirements.
22. Based on the above findings, the proposed programmatic proposal to remove and replace pilings over five years is consistent with the policies of the *Tacoma Master Shoreline Program*. The proposal, as described by the applicant, is not likely to cause substantial adverse impacts to the shoreline. Therefore, if properly conditioned, this project can be approved without the need for a Shoreline Substantial Development Permit.

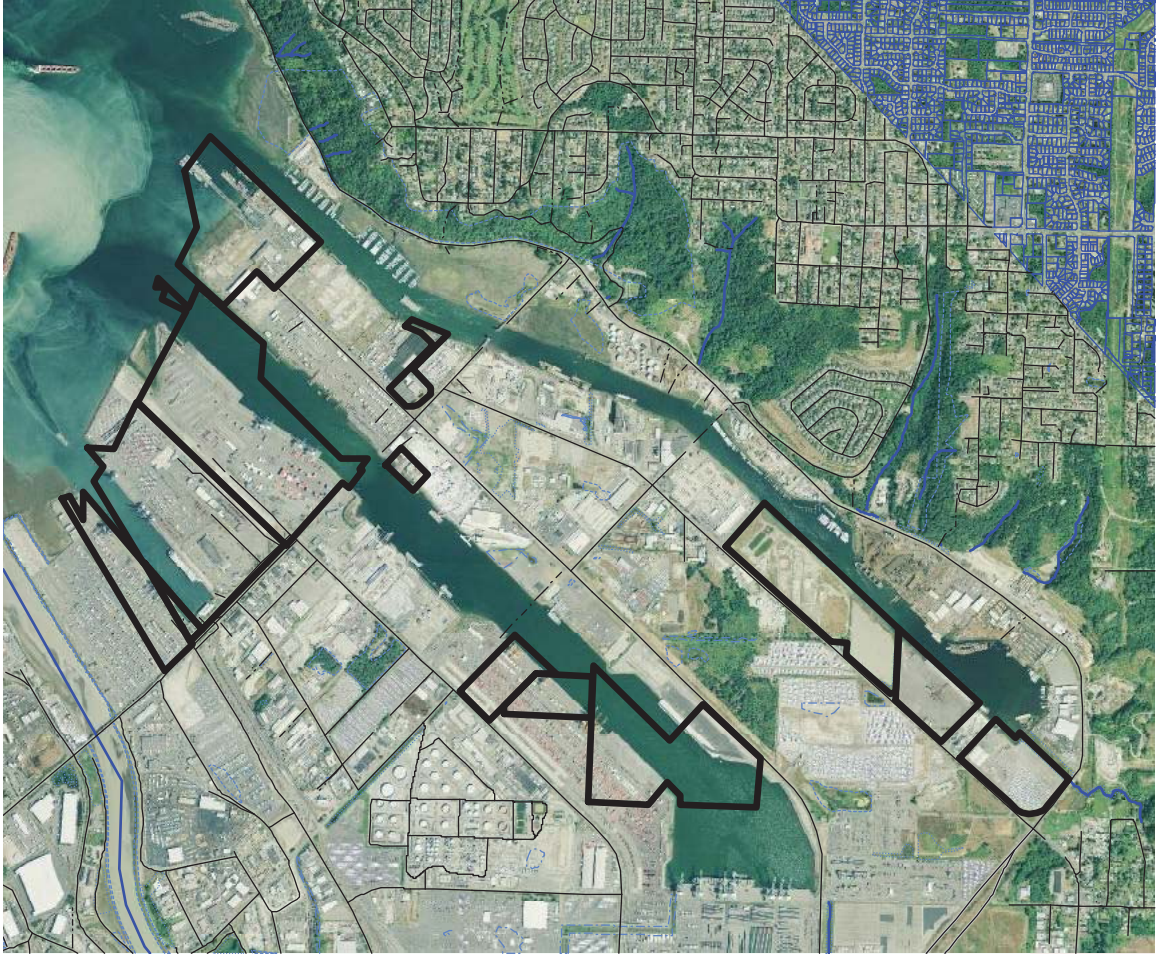
### **Conditions**

1. Replacement pilings shall be replaced on a one-to-one ratio with replacement pilings of the same or smaller diameter.
2. The applicant shall follow all proposed installation and construction methods and best management practices for minimizing unintended impacts during the repair and maintenance of the dock while installing and removing the piles. No construction materials or debris shall be allowed to enter the Waters of the State.
3. Construction material or debris shall be promptly removed and disposed of in an appropriate upland location.

4. All work must be completed within the approved in-water work window designated by the Washington State Department of Fish and Wildlife (WDFW).
5. The applicant shall notify the City of Tacoma and pertinent state or federal agencies should an unexpected spill of fuel or other chemical into the waterway.
6. Prior to issuance of construction permits, a copy of all permits required by or approvals provided by Washington State Department of Fish and Wildlife (WDFW), Department of Ecology (DOE), and U.S. Army Corps of Engineers (USACE) shall be provided to the City.
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.

**Advisory Notes**

1. This permit is only applicable to the proposed project as described above and based upon the information submitted by the applicant. Modifications to this proposal and future activities or development within the regulated buffers may be subject to further review and additional permits as required in accordance with the *TMSP*.
2. The applicant must obtain other approvals prior to construction as required by other local, state and federal agencies. The City of Tacoma is not the only reviewing agency with jurisdiction over the project area. The Army Corps of Engineers and State Department of Fish and Wildlife have requirements regarding work within regulated waters that may be applicable to the project.



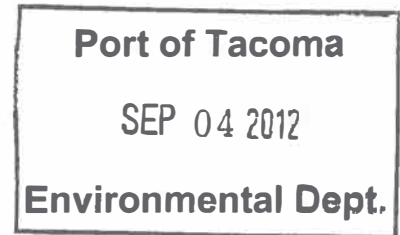


STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

August 29, 2012

Port of Tacoma  
Attn: Mr. Mark Rettmann  
PO Box 1837  
Tacoma WA 98401-1837



RE: Water Quality Certification - Order #9244/Corps Public Notice # **NWS-2011-0089-  
WRD** – Programmatic Piling Repair Project

Dear Mr. Rettmann:

The above-referenced public notice for proposed work in waters of the state has been reviewed in accordance with all pertinent rules and regulations. On behalf of the State of Washington, we certify that the work proposed in the public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and other appropriate requirements of State law. This certification is subject to the conditions contained in the enclosed Order and may be appealed by following the procedures described in the Order.

Please note that this Order does not cover CERLCA coordination, which will be conducted as part of the Corps of Engineers 404 process, and may have additional monitoring or sampling requirements dependent on location and numbers of pilings being removed.

If you have any questions concerning the content of this letter, please contact Helen Pressley at (360) 407-6076.

Sincerely,

Brenden McFarland, Section Manager  
Shorelands & Environmental Assistance Program  
Headquarters Office - Ecology  
State of Washington



Order #9244 Corps # NWS-2011-089-WRD  
Page 2 of 2  
August 29, 2012

by Certified Mail 7010 2780 0000 2503 4195

Enclosure  
Attachment

cc: Olivia Romano, Corps  
Chris Waldbillig, WDFW

ecc: Loree' Randall, Ecology  
Helen Pressley, Ecology  
Laura Inouye, Ecology  
Alex Callender, Ecology  
DMMP@dnr.wa.gov  
[ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)



**IN THE MATTER OF GRANTING A ) ORDER #9244**  
**WATER QUALITY ) Corps Reference No. NWS-2011-0089-WRD**  
**CERTIFICATION TO ) Programmatic maintenance, repair, and**  
**PORT OF TACOMA ) replacement of up to 200 pilings per year**  
in accordance with 33 U.S.C. 1341 ) throughout the Port of Tacoma property in  
(FWPCA § 401), RCW 90.48.120, RCW ) Tacoma, Pierce County, Washington  
90.48.260 and Chapter 173-201A WAC )

TO: Port of Tacoma  
Attn: Mr. Mark Rettmann  
PO Box 1837  
Tacoma WA 98401-1837

On March 23, 2011 the Port of Tacoma submitted a Joint Aquatic Resources Permit Application (JARPA) to the Department of Ecology (Ecology) requesting a Section 401 Water Quality Certification. A joint public notice regarding the request was distributed by the Army Corps of Engineers (Corps) for the above-referenced project pursuant to the provisions of Chapter 173-225 WAC on February 3, 2012.

The proposed work will include maintenance activities at 11 wharf/pier structures over a five year period. Work includes the replacement of up to 200 piles per year (fender piles, dolphin piles, and/or support), and associated pile caps, chocks, whalers, and rub strips at structures located at AMP Terminals, Terminal 7, Olympic Container Terminal, Husky Terminal (Terminal 3 and 4), Blair Dock, Trident Piers 24 and 25, BRAC, Parcel 86, Parcel 99, Parcel 105, and Parcel 115.

Replacement piles would range from 18-inch diameter to 24-inch diameter and include ACZA-treated wood and concrete piles. Piles would be extracted with a vibratory hammer or by pulling with a choke chain. Piles that break during extraction would be cut off 3-feet 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. New piles would be installed with a vibratory hammer. However, some piles may be proofed with an impact hammer and in some instances may be entirely installed with an impact hammer. Up to 1,000 piles could be replaced and up to 600 cubic yards of sand could be placed over the five year period. Work will be done in Hylebos, Blair, and Sitcum Waterways, and Commencement Bay, in Tacoma, Pierce County, Washington.

**AUTHORITIES:**

In exercising authority under 33 U.S.C. § 1341, RCW 90.48.120, 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. §1311, 1312, 1313, 1316, and 1317 (FWPCA § 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 meet the 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. For purposes of this Order, all submittals required by its conditions shall be sent to Ecology's Headquarters Office, Attn: 401/CZM Federal permit coordinator, P.O. Box 47600 Olympia, WA 98504-7600 and/or hpre461@ecy.wa.gov. Any submittals shall reference Order #9244 and Corps Reference # NWS-2011-0089-WRD.
3. Work authorized by this Order is limited to the work described in the Joint Aquatic Resources Permit Application (JARPA) received by Ecology on March 23, 2011. The Applicant will be out of compliance with this Order and must submit an updated JARPA if the information contained in the JARPA is voided by subsequent changes to the project not authorized by this Order.
4. Within 30 days of receipt of an updated JARPA, 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.
5. This Order shall be rescinded if the U.S. Army Corps of Engineers does not issue an individual 404 and/or Section 10 permit for the project.

6. 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.
7. The Applicant shall provide access to the project site upon request by Ecology personnel for site inspections, monitoring, necessary data collection, and/or to ensure that conditions of this Order are being met.
8. 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. Furthermore, Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if additional impacts due to project construction or operation are identified or if additional conditions are necessary to further protect water quality.
9. 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 permits, plans, documents and approvals. These statements shall be provided to Ecology before construction begins at the project.
10. 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.
11. 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 its terms.

**B. Water Quality Conditions:**

1. This order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-210(1)(e)(i).
  - The area of mixing established for marine waters is a 150 foot radius surrounding the in-water activity. Turbidity occurring outside that zone that is more than 5 nephelometric turbidity units (NTU) over background when the background is 50 NTU or less, or a 10% increase in turbidity when the background turbidity is more than 50 NTU is a violation of the turbidity water quality standard.

**C. Water Quality Monitoring:**

1. Turbidity shall be monitored visually in all areas, except those in or adjacent to CERCLA clean-up areas (condition C.2. of this certificate). Visible turbidity anywhere at or beyond the 150 ft point of compliance from the activity shall be considered to be an exceedance of the standard. Visual monitoring shall be conducted during all in-water activities.
2. Turbidity monitoring within CERCLA clean-up areas shall be conducted in accordance to an approved water quality monitoring plan. The Applicant shall submit a water quality monitoring plan (see condition A2) at least 30 days prior to in-water activities. The water quality monitoring plans shall be approved by Ecology prior to start of any in-water work. These areas include:
  - a) Area 4, which is adjacent to the Slip 4 CERCLA cleanup.
  - b) Area 7 which includes piling removals in Parcel 99-Arkema Chemicals, a completed CERCLA cleanup.
  - c) Area 8 which is adjacent to the Trident Piers 24/25 CERCLA cleanup.
  - d) Area 10 which is adjacent to the BRAC Navy CERCLA cleanup.
3. Turbidity monitoring reports shall be sent weekly to the 401/CZM Federal permit coordinator at the address or e-mail in A2. The permit coordinator shall be contacted within 24 hours if an exceedance occurs.

**D. Piling Replacement and Repair:**

1. All work shall be done so as to minimize turbidity, erosion, and other water quality impacts.
2. During pile removal and pile driving, a containment boom shall be placed around the perimeter of the work area to capture wood debris and other materials released into the water as a result of project activities. All accumulated debris shall be collected and disposed of upland at an approved disposal site. Absorbent pads shall be deployed should any sheen be observed.
3. The Applicant shall use tarps or other containment methods when cutting, drilling, or construction over-water to prevent debris, sawdust, concrete rubble, and other materials from entering the water.
4. Machinery and equipment used during piling removal and replacement shall be serviced, fueled, and maintained on uplands wherever possible in order to prevent contamination of surface water. Where practicable, machinery and equipment used during project activities shall use biodegradable hydraulic fluid.

5. Where possible, work shall be prioritized by the severity of the problem so that water quality can be protected.
6. The work surface on the uplands or barge shall include a containment basin for piles and any liquid or sediment removed during pulling of the piling. Basins may be constructed of durable plastic sheeting with sidewalls supported by hay bales or support structure to contain all sediment and liquid. Water left in the basins shall not be discharged into waters of the state.
7. Piles removed from substrate shall be moved immediately from the water onto the upland or barge. The pile shall not be shaken, hosed-off, left hanging to drip or any other action intended to clean or remove adhering material from the pile. All excavated piles shall be disposed of at an approved upland disposal site.
8. The Applicant shall deploy a bubble curtain or other BMP(s) to protect marine life while placing or proofing new piling.
9. During dredging, the Applicant shall have a boat available on site at all times to retrieve debris from the water.

**E. Timing Requirements:**

1. All in-water work shall be completed by the work window identified in the most current HPA issued for this project. Any project change that requires a new or revised HPA should also be sent to Ecology for review.
2. This Order shall remain in effect for a period of 5 years from date of issuance.

**F. Notification Requirements:**

1. The Applicant shall provide notice to Ecology's 401/CZM Federal permit coordinator at least 7 days prior to the start of maintenance, repairs, or installation of new tide gates and within 14 days after completion of work at the last project site every year this permit is in force. Notification should be made using all the information required in Condition A2.
2. The Applicant shall provide to Ecology a yearly report by January 31 of the following year. This report shall include details of the outfalls worked on in the previous year including photos, details of any problems and how they were solved, and a list of the outfalls planned to be cleaned in the next calendar year.

**G. Emergency/Contingency Measures:**

1. The Applicant shall develop a spill prevention and containment plan for this project, and shall have spill cleanup materials and an emergency call list available on site.

2. Any work that is out of compliance with the provisions of this Order, or conditions causing distressed 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 measures to correct the problem and/or prevent further environmental damage.
  - c. In the event of finding distressed or dying fish, the applicant 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 the applicant is instructed by Ecology on what to do with them. Ecology may require analyses 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 1-800-258-5990, **and** within 24 hours of spills or other events Ecology's 401/CZM Federal permit coordinator at (360) 407-6076.
  - 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 to be taken to prevent a recurrence, results of 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, including wetlands.
4. If at any time during work the proponent 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 all of 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.

**ADDRESS AND LOCATION INFORMATION**

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

DATED August 29, 2012 at Olympia, Washington.

  
Brenden McFarland, Section Manager  
Shorelands & Environmental Assistance Program  
Headquarters Office – Ecology  
State of Washington

**ATTACHMENT A**

**Port of Tacoma  
Programmatic Stormwater Outfall Repairs  
Water Quality Certification Order #9244**

**Statement of Understanding of  
Water Quality Certification Conditions**

I have read and understand the conditions of Order #9244 Section 401 Water Quality certification for programmatic stormwater outfall repairs. I have also read and understand all permits, plans, documents, and approvals associated with the project referenced in this order.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Company

\_\_\_\_\_  
Title





FILE COPY

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

November 29 2012

Port of Tacoma

DEC 04 2012

Environmental Dept.

Port of Tacoma  
Mr. Mark Rettmann  
PO Box 1837  
Tacoma WA 98401-1837

**RE: Water Quality Certification - Order #9244 First Amendment**

Dear Mr. Rettmann:

On August 29, 2012 the Washington State Department of Ecology (Ecology) issued a water quality certification to the Port of Tacoma for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401). Ecology received an e-mail dated November 1, 2012 requesting Ecology amend the water quality certification to clarify the language in two conditions in the water quality certification.

The attached amendment may be appealed by following the procedures described in this amendment. If you have any questions regarding the content of the amendment, please contact Helen Pressley at (360) 407-6076.

Sincerely,

Brenden McFarland, Section Manager  
Environmental Review and Transportation Section  
Shorelands and Environmental Assistance Program

by Certified Mail 7010 2780 0000 2503 4102

Enclosure

cc: David Kendall, Corps Seattle  
Olivia Romano, Corps Seattle



ecc: Loree' Randall, Ecology  
Helen Pressley, Ecology  
Laura Inouye, Ecology  
Alex Callender, Ecology  
Marv Coleman, Ecology  
[ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

**IN THE MATTER OF GRANTING A ) ORDER #9244, FIRST AMENDMENT**  
**WATER QUALITY ) Corps Reference No. NWS-2011-0089-WRD**  
**CERTIFICATION TO: the Port of ) Programmatic maintenance, repair and**  
**Tacoma ) replacement of up to 200 pilings per year**  
in accordance with 33 U.S.C. 1341 ) throughout the Port of Tacoma property in  
(FWPCA § 401), RCW 90.48.120, RCW ) Tacoma, Pierce County, Washington  
90.48.260 and Chapter 173-201A WAC )

On August 29, 2012 the Washington State Department of Ecology (Ecology) issued a water quality certification to the Port of Tacoma for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401).

Ecology received an e-mail November 1, 2012 requesting Ecology amend water quality certification Order No. 9244 to clarify the language in Conditions F1 and F2 of the water quality certification.

No other changes in the water quality certification are necessary.

Order No.9244 dated August 29, 2010 is hereby amended as follows:

**Condition F.1. currently reads:**

F.1. The Applicant shall provide notice to Ecology's 401/CZM Federal permit coordinator at least 7 days prior to the start of maintenance, repairs, or installation of new tide gates and within 14 days after completion of work at the last project site every year this permit is in force. Notification should be made using all the information required in Condition A2.

**Condition F.1 is amended to read:**

F.1. The Applicant shall provide notice to Ecology's 401/CZM Federal permit coordinator at least 7 days prior to the start of maintenance, repairs, or installation of piling and within 14 days after completion of work at the last project site every year this permit is in force. Notification should be made using all the information required in Condition A2.

**Condition F.2. currently reads:**

F.2. The Applicant shall provide to Ecology a yearly report by January 31 of the following year. This report shall include details of the outfalls worked on in the previous year including photos, details of any problems and how they were solved, and a list of the outfalls planned to be cleaned in the next calendar year.

**Condition F.2. is amended to read:**

F.2. The Applicant shall provide to Ecology a yearly report by January 31 of the following year. This report shall include details of the piling worked on in the previous year including photos, details of any problems and how they were solved, and a list of the piling planned to be maintained, repaired, or installed in the next calendar year.

**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.

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<p><b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503</p> <p><b>Pollution Control Hearings Board</b> 1111 Israel Rd SW STE 301 Tumwater, WA 98501</p>	<p><b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p> <p><b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903</p>

**CONTACT INFORMATION**

Please direct all questions about this Order to:

Helen Pressley  
Department of Ecology  
SEA Program  
300 Desmond Dr.  
Olympia WA 98504  
360-407-6076  
hpre461@ecy.wa.gov

## MORE INFORMATION

- **Pollution Control Hearings Board Website**  
[www.eho.wa.gov/Boards\\_PCHB.aspx](http://www.eho.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 34.05 RCW – Administrative Procedure Act**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=34.05>
- **Chapter 90.48 RCW – Water Pollution Control**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=90.48>
- **Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington**  
[www.ecy.wa.gov/biblio/wac173201A.html](http://www.ecy.wa.gov/biblio/wac173201A.html)

## SIGNATURE

Dated November 29, 2012 at Olympia, Washington



---

Brenden McFarland, Section Manager  
Shorelands and Environmental Assistance Program  
Headquarters Office – Ecology  
State of Washington

**Programmatic Biological Evaluation  
Port of Tacoma – Pile Replacement Program  
NWS-2011-89-WRD**

**Submitted to:**

**US Army Corps of Engineers  
Seattle District  
CENWS-OD-RG  
PO BOX 3755  
Seattle WA 98124-3755**

**On behalf of:**

**Applicant:  
Port of Tacoma  
PO Box 1837  
Tacoma, Washington 98401-1837**

**November 2011 – Revised April 2012**

**Submitted by:**



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**Job No. VAVAN-12-024**



**PROGRAMMATIC BIOLOGICAL EVALUATION  
PORT OF TACOMA – PILE REPLACEMENT PROGRAM**

**US ARMY CORPS OF ENGINEERS**

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**PROGRAMMATIC BIOLOGICAL EVALUATION  
PORT OF TACOMA – PILE REPLACEMENT PROGRAM**

**US ARMY CORPS OF ENGINEERS  
NWS-2011-89-WRD**

**NOVEMBER 2011 – REVISED APRIL 2012**

**1 PURPOSE OF BIOLOGICAL EVALUATION**

The Port of Tacoma (Port) is proposing to conduct pile replacement activities (the proposed action) at 12 wharf/dock structures located on the Sitcum, Blair, and Hylebos waterways, and in the nearshore of Commencement Bay in Tacoma, Washington (Figures 1 and 2) (see Appendix A for all figures). The Port is proposing to replace up to 200 damaged or broken fender and/or structural piling annually as needed, along with associated pile caps, chocks, and whalers. The proposed action will require work below the ordinary high water mark (OHWM) of the Sitcum, Blair, and Hylebos waterways, which will require a Section 10 permit from the US Army Corps of Engineers (USACE). This represents a federal nexus requiring that the USACE evaluate the potential for effects to species or critical habitats listed or proposed for listing under the Endangered Species Act (ESA), and to Essential Fish Habitat (EFH).

The Port's wharf/dock facilities cumulatively have over 20,000 structural and fender pilings, up to 1% of which typically require replacement in any given year. In the past, the Port has permitted and prepared ESA consultation for each individual pile replacement activity. This process requires significant resources on the parts of the Port, the USACE, and the services who administer the ESA, National Marine Fisheries Service (NMFS) and the US Fish and Wildlife Service (USFWS) (collectively, the Services). The Port, therefore, is requesting a multi-year permit from the USACE, and has prepared this Programmatic Biological Evaluation (PBE) to facilitate the ESA and EFH consultations.

The USACE will serve as the lead agency in this consultation. The purpose of this PBE is to examine the effects of the proposed program on ESA-listed species, designated and proposed critical habitats, and EFH for purposes of consultation with the Services under Section 7 of the ESA and the Magnuson-Stevens Act.

**2 BACKGROUND/HISTORY**

The Port prepared a Joint Aquatic Resources Permit Application (JARPA) in January 2011 requesting a multi-year permit for a proposed pile replacement program. The Port also submitted a *Programmatic ESA Consultation Specific Project Information Form* (SPIF) and a supplemental Effects Analysis memorandum for purposes of ESA and EFH consultation under the USACE's existing Phase I programmatic ESA consultation for piling replacement. The SPIF and Effects Analysis documented that the proposed program did not meet all of the requirements of the programmatic consultation, and as such were submitted as a reference BE (NMFS reference #2005/07506; USFWS reference #13410-2009-I-0421).

The USACE responded in a Memorandum for the Record (MFR), dated May 10, 2011, stating that, in order to implement a programmatic consultation, the USACE typically requires the preparation of a PBE. The MFR recommended a teleconference between the Port, USACE, and the Services, to discuss the details of the Port's proposed pile replacement program and to define the requirements of a programmatic ESA/EFH consultation.

The Port held a teleconference on August 19, 2011. In attendance were Robert Brenner (Port), Dan Gunderson (BergerABAM), Brian Carrico (BergerABAM), Maryann Baird (USACE), Olivia Romano (USACE), and Shandra O'Haleck (NMFS/USFWS). During the discussion, it was agreed that the Port would pursue a multi-year USACE permit and a programmatic ESA/EFH consultation. It was further agreed by all parties that the USACE and the Services would not require pre-project approval for each activity, but would instead require post-project reporting in the form of an annual submittal of a Compliance Form (included as Appendix B of this document).

The Corps provided comments on the Draft PBE in a second MFR (dated October 18, 2010 but provided via email on November 3, 2011). BergerABAM, on behalf of the Port, prepared a revised PBE to address the comments provided in the MFR in January 2012.

Teresa Mongillo (NMFS) provided comments via email (dated February 9, 2012) requesting additional clarification regarding certain components of the proposed marine mammal monitoring plan. The Port held a meeting to discuss the comments on February 27, 2012. In attendance were Tony Warfield (Port), Mark Rettmann (Port), Dan Gunderson, Shandra O'Haleck, and Teresa Mongillo. The Port has prepared this revised PBE and marine mammal monitoring plan consistent with the outcome of the meeting and subsequent telephone and email correspondence.

### **3 PROPOSED ACTION AND ACTION AREA**

The proposed action will consist of the replacement of no more than 200 piling per year at 12 Port wharf/dock facilities (Figures 3 to 9). Load bearing and fender piling are under considerable structural stress, and are frequently damaged by natural and human-caused interactions such as marine borers and the impact of ships against pile faces. If damaged piling are not replaced, docks and pier structures can degrade quickly to the point where they are no longer functional, or they become dangers to human health and safety.

The proposed action will be conducted as needed to maintain the function and structural integrity of the docks and marginal wharves within the Port's Industrial Development district. The numbers and specific locations of piles to be replaced will depend on the number assessed as damaged each year. The Port estimates that no more than 200 pilings would need to be replaced in any given year. This represents approximately 1% of the total number of piling in place at the 12 facilities. The actual number of piles requiring replacement in any given year is typically much less than 200.

A detailed description of the proposed action follows in section 3.1.

### **3.1 Description of Project Activities**

#### **3.1.1 Overview**

Eleven of the 12 facilities where pile replacement will be conducted are located within the Sitcum, Blair, and Hylebos waterways, which are busy industrial shipping channels adjacent to Commencement Bay in the City of Tacoma, Washington (Figures 1 and 2). One additional site, the Trident facility, is located within the waters of Commencement Bay at the mouth of the Hylebos Waterway. These waterbodies are located within the Puyallup River Basin (Water Resource Inventory Area [WRIA] 10; Hydrologic Unit Code [HUC] 17110014).

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. No creosote-treated timber piling will be installed. Concrete piling will be replaced with concrete piling of a similar size and diameter. The largest timber piling will be 18 inches in diameter. The largest concrete piling to be replaced will be 24 inches in diameter. Most of the piling to be replaced are less than 18 inches in diameter, and it is estimated that no more than 4 concrete piling 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. Piling that break during extraction will be cut off 3 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. Figure 10 shows a typical cross-section, and includes a detail of the rub strip installation.

#### **3.1.2 Duration of Pile Driving Activities**

The proposed action will be conducted during the Washington Department of Fish and Wildlife (WDFW)-approved in-water work window (July 16–February 14) for waters of Commencement Bay in each year between July 16, 2012 and February 14, 2017. Work will typically be conducted during standard daylight working hours, roughly 8 to 10 hours a day. It is estimated that up to approximately 8 to 9 piles could be installed per day, which equates to approximately 25–30 total days of pile driving per year.

### **3.1.3 Annual Reporting**

The proposed action will be conducted as needed. Rather than providing pre-project notification to the USACE and the Services, the Port will instead provide annual post-project reporting via completion of the Compliance Form included as Appendix B. The form will be submitted by March 15 of each year, and will include, at minimum, 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. To arrive at the linear feet of pile replacement, the furthest linear distance between two piles replaced at each facility where piles were replaced will be calculated.

### **3.2 Conservation Measures**

The project will implement the following list of conservation measures to reduce, eliminate, or minimize the effects of the proposed action to listed species or habitat.

- Pile removal and installation will be conducted during the WDFW-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 USACE, the Services, Washington Department of Ecology (Ecology), and WDFW during all hours when the proposed action is being conducted.
- No new access roads, routes, or trails will be constructed as part of the proposed action.
- No stockpiling or staging of materials will occur below the mean higher high water mark (MHHW) 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.
- 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 US Environmental Protection Agency (EPA) during CERCLA coordination or Ecology during MTCA.
- No piles will be associated with log raft booms.
- Sheet piling will not be used in lieu of pole piling.
- The Port will report annually to the USACE and the Services with a Compliance Form (Appendix B) 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.
- No solvents or other chemicals will be used in or over the water during the construction or operation of the proposed action.
- 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.
- Removed creosote-treated piles will be disposed of in a manner that precludes their further use. Piles will be cut into manageable lengths (4 feet or less) for transport and disposal in an approved upland location that meets the liner and leachate standards contained in the Washington Administrative Code (WAC), Chapter 173-304, Minimum Functional Standards, and that complies with the ESA. No reuse of treated wood will occur.
- All treated wood will be contained during and after removal to preclude sediments and any contaminated materials from entering the aquatic environment.
- All ACZA-treated timber fender piling will be fitted with an approved rub strip(s) in a manner that prevents direct contact with vessels, vessel bumpers, and piling. The rub strips will be composed of UHMW or HDPE plastic.
- All equipment that will operate over water or below MHHW will be cleaned of accumulated grease, oil, or mud. All leaks will be repaired prior to arriving on site. Equipment will be inspected daily for leaks, accumulations of grease, etc., and any identified problems will be fixed before operating over water or below the MHHW.
- Piles will not be placed in or adjacent to vegetated shallows, wetlands, special aquatic sites, or within sites designated by WDFW as documented or suitable forage fish spawning (WDFW 2010).
- 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.
- If a barge is used, it will not ground out or rest on the substrate, or be over or within 25 feet of vegetated shallows (except where such vegetation is limited to State-designated noxious weeds).
- The bottom of any structure, vessel, watercraft grid, or watercraft lift will be at least 1 foot above the level of the substrate during all water levels.
- Hydraulic water jets will not be used to remove or place piles.
- Piles will be replaced in the same general location and will not extend beyond the footprint of the existing structure.
- Fueling and servicing of all equipment, with the exception of barge derricks, will be confined to an established staging area that is at least 150 feet from open water or wetlands. Barge derricks will be fueled and serviced while they float. Spill containment systems will be adequate to contain all fuel leaks.
- Equipment and vehicles will be stored in established staging areas when not in use (excluding cranes, which cannot be easily moved).
- A written spill prevention, control and countermeasures (SPCC) plan will be prepared for activities that include the use of heavy equipment. The plan will describe measures to



prevent or reduce impacts from accidental leaks or spills, and will describe all hazardous materials that will be used, their proper storage and handling, and the methods that will be used to monitor their use. A spill kit will be available on site during construction and stored in a location that facilitates immediate deployment if needed.

- Uncured concrete will not be allowed to come into contact with surface water.
- During pile removal or installation conducted between October 1 and February 14, a marine mammal monitoring plan will be implemented to avoid impacts to ESA-listed marine mammals. The areas in which monitoring is proposed is site-dependent, and is also dependent on the type of activity being conducted (vibratory removal or installation or impact installation). Some sites will not require monitoring. A detailed marine mammal monitoring plan is included as Appendix C.
- No piling will be installed in or within 25 feet of any eelgrass beds and barges will not anchor over any eelgrass beds.
- 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.
- Replacement piles will be wood piles no greater than 18 inches in diameter and concrete piles no greater than 24 inches in diameter.
- No installation or removal of sheet piling will occur.
- Pile removal and installation will be conducted during daylight hours.

### **3.3 Action Area**

This section describes the action area for the proposed action. The action area is the defined geographic area that could be affected by the direct and indirect effects of the proposed action. The action area (Figure 11) has been established based on:

- The project footprint, which is limited to the immediate footprint where the proposed action will be conducted.
- The extent of temporarily elevated underwater noise levels associated with pile removal and installation.
- The extent of temporarily elevated terrestrial noise levels associated with pile removal and installation.
- The extent of temporarily increased levels of sedimentation and turbidity associated with pile removal and installation.

#### **3.3.1 Project Footprint**

The project footprint portion of the action area consists of the physical locations of the piles that may need to be replaced under the proposed action at 12 Port wharf/dock locations, as shown in Figure 2 and as described in section 3.1 above.

The proposed action will replace piles within the footprint of the piles that are removed and, as such, will not result in any additional impacts to benthic habitat. For this reason, direct impacts to benthic habitat associated with the proposed action are considered insignificant.

Nevertheless, the action area includes the physical footprints of the 12 wharf/dock facilities, as shown on Figure 11.

### **3.3.2 Underwater Noise**

The proposed action will result in temporarily elevated underwater noise levels. The zone of influence for underwater noise has been determined using the practical spreading loss model described in the Washington State Department of Transportation (WSDOT) Training Manual (WSDOT 2011), which assumes a 4.5-dB reduction per doubling of distance. WSDOT reports records of ambient levels within 1 km of ferry terminals or other anthropomorphic activity to be approximately 135 dBRMS, while average ambient noises collected at distances greater than 1km are approximately 120 dBRMS. Shipping traffic within the Sitcum, Blair, and Hylebos waterways and nearshore areas of Commencement Bay likely produce levels of ambient noise of 135 dBRMS or greater. However, portions of Commencement Bay and adjacent Puget Sound are further than 1km from shore and may have background ambient noise levels closer to 120 dBRMS. In the absence of site specific data, for purposes of this analysis within this document, the background noise level has been assumed to be 120 dBRMS on average.

While most pile removal and installation will be conducted with a vibratory hammer, some piles may need to be proofed with an impact hammer, and, in some cases, it may be necessary to drive a pile for some or all of its entire length with an impact hammer.

There is little data available regarding underwater noise levels associated with vibratory removal or installation of 12- to 18-inch timber piles, or of 12-24-inch concrete piles. A review of existing literature including CALTRANS' Compendium of Pile Driving Data (Reyff 2007), and project specific data published by WSDOT (Laughlin 2007, 2010, 2011) indicate that 160 dBRMS is an appropriate worst case estimate of the maximum sound levels likely to be produced during vibratory removal or installation of timber or concrete piles, for the following reasons:

- In 2010 WSDOT collected hydroacoustic data during vibratory pile removal at its Port Townsend Ferry Terminal (Laughlin 2011). The results of this monitoring indicated that average dBRMS values during vibratory pile removal ranged between 149 and 152, with an overall average of 152 dBRMS.
- WSDOT reports that, on average, vibratory noise levels are between 10 and 20 dB lower than those produced by impact pile driving (WSDOT 2011). Underwater noise from impact installation of 12-18" timber piles typically produces maximum underwater noise levels of 170 dBRMS. Impact installation of concrete piles have been shown to produce a range of underwater sound levels (see below), but for purposes of this consultation have been assumed to not exceed 176 dBRMS. If a 10-16 dB reduction is assumed, on average, the underwater noise would be expected to not exceed 160 dBRMS during vibratory removal or installation of timber or concrete piles.

- Concrete and timber piles produce much lower underwater sound pressures than similarly sized steel piles (Reyff 2007). CALTRANS' Compendium of Pile Driving Data (Reyff 2007), provides information regarding vibratory installation of: 12-inch steel pipe piles (150 dB<sub>RMS</sub>), 12-inch steel pipe piles (155 dB<sub>RMS</sub>), 24-inch AZ steel sheet pile (160 dB<sub>RMS</sub>), and 36-inch steel pipe piles (170 dB<sub>RMS</sub>). Given these sound pressure levels, it is safe to assume that the sound pressure levels associated with vibratory removal and/or installation of 12-18" timber piles or 12-24-inch concrete piles would not exceed 160 dB<sub>RMS</sub> on average.

Impact proofing and/or installation of 12- to 18-inch timber and 12- to 24-inch concrete piles would have the potential to create the highest levels of temporarily elevated underwater noise. Data published by WSDOT (WSDOT 2011) indicate that impact installation of timber piles, irrespective of diameter, has been measured as producing underwater noise levels as high as 180 dB<sub>Peak</sub>, 170 dB<sub>RMS</sub>, and 160 dB<sub>SEL</sub> (WSDOT 2011). This same data indicates that impact installation of concrete piles, irrespective of diameter, typically produces single strike sound pressure levels of 192 dB<sub>Peak</sub>, 176 dB<sub>RMS</sub>, and 174 dB<sub>SEL</sub> (WSDOT 2011). WSDOT has published project specific data documenting significantly lower decibel levels (184 dB<sub>Peak</sub>, 170 dB<sub>RMS</sub>, and 159dB<sub>SEL</sub>) during impact driving of 24-inch concrete piles. However, for purposes of making a conservative estimate of the extent of underwater noise produced, the higher decibel levels have been used to determine the extent of underwater noise.

The following equation shows how the practical spreading loss model was used to calculate the distance that will be required to attenuate project-related underwater noise to the baseline decibel level of 120 dB<sub>RMS</sub> for purposes of establishing the action area.

$$TL = 15 * \text{Log} (R_1/R_2)$$

TL = amount of spreading loss (known noise level – ambient noise level)

R<sub>1</sub> = distance where noise attenuates

R<sub>2</sub> = range of known noise level (10 meters in this case)

The practical spreading loss model equation, solved for R<sub>1</sub>, calculates the distance at which project noise would attenuate to background conditions:

$$R_1 = (10^{(TL/15)})(R_2) = (10^{(192-120/15)})(10) = 631,000 \text{ m.}$$

The results of the practical spreading underwater noise attenuation model indicate that underwater noise would theoretically attenuate to background levels at approximately 631,000 meters, or roughly 392 miles. This is a theoretical scenario and the model is not likely accurate at this level. In-water noise from pile driving activities at Trident Piers 24 and 25 could travel a maximum of approximately 11 miles before intersecting a landmass. The existing network of bulkheads and nearshore structures within the waterway portions of the action area also serve to attenuate noise within that portion of the action area.

For the purpose of this consultation, and consistent with the principles of noise attenuation, the extent of potentially detectable temporarily elevated underwater noise has been estimated to extend throughout the water columns of the Sitcum, Blair, and Hylebos waterways, and the waters of Commencement Bay and adjacent waters of Puget Sound in straight line distances from the proposed pile driving activities to the point of intersection with the nearest land mass. The zones of influence are shown graphically on Figure 11.

### **3.3.3 Terrestrial Noise**

Baseline and construction-related noise levels were inferred using a technique recommended in the WSDOT training manual (WSDOT 2010). That guidance includes information regarding noise levels associated with construction procedures from the City of Boston's noise assessment methodology (Thalheimer 2000) and noise attenuation data from the Federal Transit Administration's (FTA) construction noise methodology (FTA 2006).

The loudest piece of equipment anticipated to be needed for the proposed action would be an impact pile driver, which can produce peak terrestrial noise levels of approximately 110 dBpeak (WSDOT 2010). Vibratory pile drivers produce terrestrial noise levels of approximately 101 dBpeak (WSDOT 2010).

While no specific terrestrial noise data exists within the action area, for purposes of this terrestrial noise attenuation analysis, baseline noise levels have been assumed to be at least 78 dBA measured at 50 feet. This estimate is based on data from Cavanaugh and Tocci (Cavanaugh and Tocci 1998) as cited by WSDOT (WSDOT 2011), that indicates that background sound levels in high density urban areas is approximately 78 dBA, while background sounds in urban areas adjacent to freeway traffic can be as high as 88 dBA. Because of the high level of shipping and industrial traffic in and surrounding inner Commencement Bay and the Sitcum, Blair, and Hylebos waterways, and because of the proximity of the action area to I-5 and I-705, baseline noise levels have been assumed to be at least 78 dBA measured at 50 feet, and may in fact be much higher. Hard site conditions were assumed for noise attenuation purposes because the surrounding landscape is largely open water or hardscape.

Table 1 shows the attenuation of terrestrial noise from impact pile installation to the baseline decibel level of 78 dBA.

**Table 1. Project-Related Terrestrial Noise Attenuation**

Distance from Source (ft)	Construction Noise (Point Source, Hard Site) (-6.0 Db reduction per doubling of distance)
50	110
100	104
200	98
400	92
800	86
1600	80
3200	74

Based on the calculated noise attenuation distances shown in Table 1, the terrestrial noise from vibratory and impact pile installation will attenuate to the background noise level of 78 dBA at a distance between 1,600 and 3,200 feet from the location of the pile-driving activity. For purposes of establishing the action area for the proposed action, the more conservative 3,200-foot radius has been established as the limit of detectable terrestrial noise from construction activity. The zones of influence for terrestrial noise are shown graphically on Figure 11.

#### **3.3.4 Sedimentation/Turbidity**

The proposed pile installation activities have the potential to elevate levels of sedimentation and turbidity temporarily. The zone of influence associated with temporarily elevated levels of sedimentation and turbidity has been determined based on the turbidity mixing zone standard for marine waters authorized by Ecology and defined in WAC 173-201A-210. For projects working within or along lakes, ponds, wetlands, estuaries, marine waters or other nonflowing waters, the point of compliance is at a radius of 150 feet from the activity causing the turbidity exceedance.

## **4 STATUS OF SPECIES AND CRITICAL HABITAT**

This section discusses the ESA-listed species and critical habitat known to occur, or with the potential to occur, within the action area, which includes Commencement Bay and adjacent waters of Puget Sound, as well as portions of the Sitcum, Blair, and Hylebos waterways (see Appendix D for species lists).

Information for this PBE regarding listed species was obtained from the USFWS web site (USFWS 2011) and the NMFS web site (NMFS 2011) on September 9, 2011. Additional information came from the Natural Heritage Program (NHP) of the Washington Department of Natural Resources (DNR) (WNHP 2011) and WDFW Priority Habitat and Species (PHS) maps (WDFW 2010). Table 2 identifies the species listed under the ESA that are addressed within this PBE.

**Table 2. Species Listed under the ESA Addressed in this PBE**

Species Name			ESA Listing Status	Critical Habitat
Common Name	Scientific Name	ESU or DPS*		
Chinook Salmon	<i>(Oncorhynchus tshawytscha)</i>	Puget Sound ESU	Threatened	Designated
Steelhead	<i>(Oncorhynchus mykiss)</i>	Puget Sound DPS	Threatened	Not Designated or Proposed <sup>1</sup>
Bull Trout	<i>(Salvelinus confluentus)</i>	Puget Sound DPS	Threatened	Designated
Steller Sea Lion	<i>(Eumatopius jubatus)</i>	Eastern DPS	Threatened	Designated
Southern Resident Orca	<i>(Orcinus Orca)</i>	Southern Resident DPS	Endangered	Designated
Humpback Whale	<i>(Megaptera novaeangliae)</i>	N/A	Endangered	Not Designated Or Proposed
Marbled murrelet	<i>(Brachyramphus marmoratus)</i>	N/A	Threatened	Designated
Boccaccio	<i>(Sebastes paucispinis)</i>	Puget Sound/ Georgia Basin DPS	Endangered	Not designated or proposed
Yelloweye Rockfish	<i>(Sebastes ruberrimus)</i>	Puget Sound/ Georgia Basin DPS	Threatened	Not designated or proposed
Canary Rockfish	<i>(Sebastes pinniger)</i>	Puget Sound/ Georgia Basin DPS	Threatened	Not designated or proposed
Pacific Eulachon	<i>(Thaleichthys pacificus)</i>	Southern DPS	Threatened	Proposed

\*ESU =Evolutionarily Significant Unit; DPS=Distinct Population Segment

According to the USFWS species list, although the species listed in Table 3, and/or their designated critical habitat, do occur, or may occur, within Pierce County, they are not addressed in this PBE for the reasons that are discussed following the table.

**Table 3. Species Listed but Not Addressed in this PBE**

Species Name		ESA Listing Status
Common Name	Scientific Name	
Canada Lynx	<i>(Lynx canadensis)</i>	Threatened
Gray Wolf	<i>(Canis lupus)</i>	Endangered
Grizzly Bear	<i>(Ursus arctos)</i>	Threatened
Northern Spotted Owl	<i>(Strix occidentalis caurina)</i>	Threatened
Marsh Sandwort	<i>(Arenaria paludicola)</i>	Endangered
Golden Paintbrush	<i>(Castilleja levisecta)</i>	Endangered
Water Howellia	<i>(Howellia aquatilis)</i>	Endangered

While information from USFWS (USFWS 2011) identified the potential for Canada lynx, gray wolf, grizzly bear, northern spotted owl, marsh sandwort, golden paintbrush, and water howellia to occur within the county, WDFW PHS maps indicate that there is no known occurrence of these species within the action area (WDFW 2010). Suitable habitat for these

<sup>1</sup> Critical habitat has been neither designated nor proposed for Puget Sound DPS steelhead. However, on January 10, 2011, NMFS published a proposal to propose critical habitat for Puget Sound DPS steelhead. If critical habitat is designated prior to project completion, the effects of this proposed action on the designated critical habitat would be evaluated at that time.

species does not exist within the action area or its vicinity – the project will occur within a heavily industrialized marine aquatic environment. The terrestrial portions of the action area are heavily developed with industrial and residential development, with little natural habitat left.

Based on the lack of suitable habitat for the species listed in Table 3, it is determined that the proposed project will have **no effect** on them and they are not addressed further.

## 5 BIOLOGICAL REQUIREMENTS

This section describes the biological requirements of the listed species that have the potential to occur within the action area. These descriptions include run timing, biological requirements, and factors affecting recovery.

### 5.1 Run Timing

Table 4 below shows the times of year that juvenile salmonids may be outmigrating within the action area. Table 5 shows the times of year of adult runs within the action area. Table 6 shows the times of year that listed non-salmonid species may be present within the action area.

**Table 4. Timing of Juvenile Salmonid Downstream Migration within Action Area**

Species and ESU/DPS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Chinook - Puget Sound ESU												
Steelhead - Puget Sound DPS												
Bull Trout - Puget Sound DPS												

- = WDFW Puget Sound in-water work window
- = Potential presence of outmigrating juvenile salmonids



**Table 5. Timing of Adult Salmonid Migration within Action Area**

Species and ESU/DPS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Chinook - Puget Sound ESU												
Steelhead - Puget Sound DPS												
Bull Trout - Puget Sound DPS												

- = WDFW Puget Sound in-water work window
- = Potential presence of migrating adult salmonids

**Table 6. Timing of Potential Non-Salmonid Species Occurrence within Action Area**

Species and ESU/DPS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Steller Sea Lion – Eastern DPS	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Orca – Southern Resident DPS	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Humpback Whale	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Marbled Murrelet	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Georgia Basin DPS Boccaccio	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Georgia Basin DPS Yelloweye Rockfish	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Georgia Basin DPS Canary Rockfish	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue
Southern DPS Pacific Eulachon	Blue	Blue					Blue	Blue	Blue	Blue	Blue	Blue

 = WDFW Puget Sound in-water work window  
 = Potential presence of non-salmonid species

**5.2 Chinook Salmon (*Oncorhynchus tshawytscha*)**

The Puget Sound ESU of Chinook salmon includes all naturally spawned populations of Chinook salmon from rivers and streams flowing into Puget Sound (70 FR52630). Puget Sound ESU Chinook salmon are listed as threatened by NMFS under the ESA. The proposed action is located in designated marine nearshore areas of the Sitcum, Blair, and Hylebos waterways as well as within the waters of Commencement Bay and adjacent waters of Puget Sound which represent suitable habitat for adult and outmigrating and rearing juveniles in this ESU.

**5.2.1 Distribution & Habitat Requirements**

Compared to the other Pacific salmon, Chinook salmon have the most complex life history with a large variety of patterns (SSPS 2007). The length of freshwater and saltwater residency varies greatly (Myers et al. 1998). Juvenile Chinook salmon may move out of the freshwater area from their river of birth within 1 to 10 days after emerging from the streambed gravel, and spend many months rearing in the estuary, or they may reside in freshwater for a full year, spending relatively little time in the estuary area before migrating to sea. The majority of Puget Sound ESU Chinook salmon leave the freshwater environment during their first year, making extensive use of protected estuary and nearshore habitats (SSPS 2007). Although some Puget Sound Chinook apparently spend their entire life within Puget Sound, most migrate to the ocean and north along the Canadian coast (SSPS 2007). After 3–5 years in the ocean, Puget Sound stocks return to the Puyallup River to spawn in the spring and fall. Spawning occurs in the mainstems of larger tributaries in coarse gravel and cobble (Myers et al. 1998).



### **5.2.2 Status**

Spawning ground surveys and juvenile sampling efforts have found Chinook present in the Hylebos Waterway in low numbers (Kerwin 1999). The naturally spawning Chinook population in the Puyallup River is composed of unknown proportions of natural and hatchery origin fish. The proportion of adult hatchery fish that contribute to the natural spawning population has not been determined (Kerwin 1999). However, based on their proximity to the Puyallup River and Hylebos Creek, the Blair and Sitcum waterways may also contain ESA-listed Chinook salmon migrating through the area. Habitat degradation from stream blockages, channelization, contamination, forest practices, and urbanization is listed as the primary cause of decline.

### **5.2.3 Presence in Action Area**

Chinook salmon have been documented in Hylebos Waterway and in Commencement Bay (WDFW 2011), but not in the Blair or Sitcum waterways. Puget Sound ESU Chinook salmon adults migrate through the action area between approximately June and November. None of the waterways (Sitcum, Blair, or Hylebos) that are within the action area provide suitable spawning habitat for Chinook salmon, as the project occurs within a marine environment.

Adult Chinook salmon, if present within the action area, would most likely be temporarily holding within the waters of Commencement Bay, or migrating to upstream spawning waters in the Puyallup River Basin. Adult Chinook salmon are not likely present within the Sitcum, Blair, or Hylebos waterways for any significant periods of time. Juvenile Chinook salmon would similarly not be expected to hold for long periods within the Sitcum, Blair, or Hylebos Waterways, but could potentially be rearing within the waters of Commencement Bay at any time of the year.

## **5.3 Steelhead (*Oncorhynchus mykiss*)**

Puget Sound DPS steelhead are listed as threatened by NMFS under the ESA (May 11, 2007; 72 FR 26722). While critical habitat for steelhead in Puget Sound marine waters is currently under review, it has not been proposed nor designated at this time. The action area represents suitable habitat for migrating adults and outmigrating and rearing juveniles in this DPS.

### **5.3.1 Distribution & Habitat Requirements**

Steelhead is a more widely distributed anadromous fish than salmonids. The life history pattern of steelhead can be very complex, involving repeated spawnings and reversals of freshwater to ocean phases (71 FR 15667). Steelhead use a variety of habitats throughout the freshwater portion of their life history (Busby et al 1996). As with all salmonid species, water temperatures and intra-gravel flow are also important for spawning and incubation. After fry emerge from the gravels, they seek complex habitat of boulders, rootwads, and woody material along the stream margins. As juveniles get older and larger, they move downstream to rear in larger tributaries and mainstem rivers. Undercut banks, large woody debris (LWD), and boulders are all utilized by larger juveniles (Busby et al. 1996).

Juvenile steelhead may stay in freshwater for up to 3 years before moving into the estuary and migrating out to sea. Once outmigration has begun, steelhead spend little time in estuaries prior to heading out to sea (Oregon Department of Fish and Wildlife [ODFW] 1998, King County

Department of Natural Resources [KCDNR] 2001, City of Seattle 2007). In estuaries, juvenile steelhead feed on small crustaceans, insects, aquatic worms, fish eggs, and small fish. In marine waters, juvenile and adult steelhead eat fish, crustaceans, squid, and insects (KCDNR 2001).

### **5.3.2 Status**

Steelhead counts in the Puyallup River have declined steadily since the 1980s (Ford et al. 2010). Factors contributing to the decline of Puget Sound DPS steelhead in the action area include blocked access to historical habitat, habitat degradation, channelization, contamination, forest practices, and urbanization. Spawning ground surveys and juvenile sampling efforts have found steelhead present in the system in low numbers (Kerwin 1999).

### **5.3.3 Presence in Action Area**

Puget Sound DPS steelhead have been documented within the Blair and Hylebos waterways, and could potentially occur in the Sitcum Waterway (WDFW 2011). Adult and juvenile steelhead most likely use the waterways in the action area as a migration corridor. The waters of Commencement Bay and adjacent waters of Puget Sound provide potentially suitable habitat for adult migration and also for juvenile rearing and outmigration.

Puget Sound DPS steelhead adults could be present at all times of the year and would be migrating through Commencement Bay to the Puyallup River, or within the Blair and Hylebos waterways to Hylebos and Wapato creeks. Outmigration of juveniles could be occurring between approximately the middle of March through the middle of July, and rearing juveniles could be present in Commencement Bay at any time of year.

## **5.4 Bull Trout (*Salvelinus confluentus*)**

The Puget Sound DPS of bull trout includes all natural spawning populations of bull trout in the Puget Sound Basin, including in the streams that flow into Puget Sound. Puget Sound DPS bull trout are listed as threatened by the USFWS under the ESA. USFWS has also designated nearshore marine habitat within Puget Sound as critical habitat for Puget Sound bull trout (70 FR 56212-56311). Critical habitat extends along the entire Puget Sound nearshore from extreme high water to 33 feet depth relative to mean lower low water (MLLW). Critical habitat also includes tidally influenced freshwater areas at the heads of estuaries.

### **5.4.1 Distribution & Habitat Requirements**

Once widely distributed throughout the Pacific Northwest, bull trout have been reduced to approximately 44 percent of their historical range (LCFRB 2004c). Compared to other salmonids, bull trout are thought to have more specific habitat requirements, and are most often associated with undisturbed habitat with diverse cover and structure. Spawning and rearing are thought to be primarily restricted to relatively pristine cold streams, often within headwater reaches (Rieman and McIntyre 1993). Adults can reside in lakes, reservoirs, and coastal areas or they can migrate to salt water (63 FR 31647). Juveniles are typically associated with shallow backwater or side-channel areas, while older individuals are often found in deeper pools sheltered by large organic debris, vegetation, or undercut banks (63 FR 31467). Water temperature is also a critical factor for bull trout, and areas where water temperature exceeds 59° F are thought to limit distribution (Rieman and McIntyre 1993).

#### **5.4.2 Status**

Key factors in the decline of bull trout populations include harvest by anglers, impacts to watershed biological integrity, and the isolation and fragmentation of populations. Changes in sediment delivery (particularly to spawning areas), degradation and scouring, shading (high water temperature), water quality, and low hydrologic cycles adversely affect bull trout. Therefore, impacted watersheds are negatively associated with current populations. Additionally, bull trout appear to be affected negatively by non-native trout species through competition and hybridization.

#### **5.4.3 Presence in Action Area**

Puget Sound DPS bull trout have more specific habitat requirements compared to other salmonids (Rieman and McIntyre 1993). Habitat components that appear to influence bull trout distribution and abundance include water temperature, cover, channel form and stability, valley form, spawning and rearing substrates, and migratory corridors. Sparse suitable habitat and water quality issues related to development within the Sitcum, Blair, and Hylebos Waterways may deter the presence of bull trout in the immediate vicinity of the proposed pile replacement sites. The waters of Commencement Bay and adjacent waters of Puget Sound provide potentially suitable habitat for adult migration and also for juvenile rearing and outmigration.

Puget Sound DPS bull trout have been documented in both the Blair and Hylebos waterways, and they may be presumed to be present at least occasionally in the Sitcum waterway (WDFW 2010). These waterways provide only for migratory habitat for bull trout migrating to locations higher in the Puyallup River watershed. Most migratory bull trout leave freshwater and enter Puget Sound during late winter and spring, then return to freshwater during late spring and early summer (Goetz *et al.* 2004).

It is possible that migrating adult or subadult bull trout could potentially be migrating within the portions of the action area that are within the Sitcum, Blair, and Hylebos waterways between approximately mid-February and mid-July. Adult and/or rearing juvenile bull trout could be present within the waters of Commencement Bay or adjacent waters of Puget Sound at any time of the year.

### **5.5 Steller Sea Lion (*Eumatopius jubatus*)**

The Steller sea lion is a pinniped and the largest of the eared seals. Steller sea lions are listed as threatened east of 144° W (Cape Suckling, Alaska), while the population west of this latitude is listed as endangered based largely on over-fishing of the seal's food supply. The increasing eastern population segment, in southeast Alaska, British Columbia, and down the West Coast into California, is listed as threatened under the ESA.

#### **5.5.1 Distribution & Habitat Requirements**

The range of the Steller sea lion includes the North Pacific Ocean rim from California to northern Japan. This sea lion is primarily a coastal and open-ocean species although it does occur in Commencement Bay. Compared with the California sea lion, Steller sea lions are thought to be less tolerant of human activity and prefer to feed offshore in deeper waters.

Habitat requirements include islands or isolated shoreline areas for breeding and undisturbed water for feeding.

### **5.5.2 Status**

The western stock of Steller sea lions in Alaska was listed as endangered and the eastern stock in the continental US and Canada was listed as threatened in 1997. Declines in Steller sea lion populations are probably attributable to declines in fish populations due to increasing commercial fisheries in the Gulf of Alaska. Drowning, entanglement in nets, and shooting by fishermen are possible reasons for the decline. Steller sea lions are protected under the ESA and the Marine Mammal Protection Act (MMPA), which forbids the killing, harming, or harassing of any marine mammal.

### **5.5.3 Presence in the Action Area**

Steller sea lions do not occur frequently in the inland waters of Washington, and occur only occasionally in the waters of Commencement Bay. No Steller sea lion rookeries or haulouts have been documented within the action area (Jeffries *et al.* 2000), and Commencement Bay is not a primary migratory corridor for Steller sea lions. If present, the species would be expected to be foraging opportunistically in the waters of Commencement Bay and adjacent waters of Puget Sound. Steller sea lions are not expected to be present in the busy industrial areas due to the high level of continuous disturbance. For the same reason, Steller sea lions are not expected to be present within the waters of the Sitcum, Blair, or Hylebos waterways.

## **5.6 Southern Resident Orca (*Orcinus Orca*)**

Southern Resident orcas, first protected under the MMPA in 1972, were considered to be depleted under the MMPA in May 2003. Drastically reduced from 1965 through 1975 for reasons that may include the capture of the animals for marine parks, the Southern Resident orca was considered a DPS of the orca whale species in August 2004 and was proposed as threatened under the ESA in December 2004. In November 2005, the Southern Resident orca was listed as an endangered species under the ESA (National Oceanic and Atmospheric Administration [NOAA] 2005). The population of Southern Resident orca currently stands at 89 whales.

### **5.6.1 Distribution & Habitat Requirements**

Southern Resident orcas occur in large, stable pods with memberships ranging from 10 to approximately 60 whales. Their primary prey is fish and their distribution is closely tied to the peak abundance of various species of salmon prey. The assemblage contains three distinct pods (J pod, K pod and L pod), and is considered a stock under the MMPA. Their range during the spring, summer, and fall includes the inland waterways of Puget Sound, the Strait of Juan de Fuca, and the Southern Georgia Strait. Little is known about the winter movements and range of the Southern Resident stock. Southern Resident orcas have not been seen to associate with other resident whales. Mitochondrial and nuclear genetic data suggest that Southern Residents interbreed with other orcas rarely, if at all (NOAA 2005).

### 5.6.2 Status

The Southern Resident population is more subject to anthropogenic influences than any other population. For example, levels of toxic chemicals in Southern Residents are three times higher than levels known to cause immunotoxicity in harbor seals (*Phoca vitulina*). Organochlorine concentrations are four times higher than reported for the Northern Resident population. It is also possible that the large and growing commercial and recreational whale watching industry on the West Coast may be having an impact, although specific impacts are unclear. The Southern Residents are also subject to significantly higher levels of vessel interactions because their summer range lies close to large urban areas (Seattle, Victoria, and Vancouver). Human interactions include live-capture fisheries, entanglement in fishing gear, collisions with vessels, and exposure to oil spills.

### 5.6.3 Presence in the Action Area

The *Southern Resident Killer Whale Sighting Compilation, 1990-2008* (Osborne 2008) has compiled data regarding the average number of orca sightings in Puget Sound per month over an 18 year period. The compilation divides Puget Sound into discrete “quadrats”, and provides sighting data for each quadrat. The action area includes all or portions of quadrats 418, 420, 421, and 422. Table 7 below provides the sighting data for each quadrat for the years 1990-2008

**Table 7. Timing of Potential Non-Salmonid Species Occurrence within Action Area**

Quadrat (from Osborne 2008)	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
418	1	2	0	6	12	18	9	3
420	1	1	1	10	10	31	13	2
421	0	1	0	2	1	4	9	0
422	0	1	0	4	4	14	4	4

Southern Resident orcas, if present within the action area, would be limited to the waters of Commencement Bay and adjacent waters of Puget Sound. Orcas are most commonly observed in Commencement Bay between approximately October and January, with the greatest potential for occurrence being the months of December and January (Osborne 2008).

The Sitcum, Blair, and Hylebos waterways do not represent suitable habitat for orcas, and orcas would not be expected to occur within the portion of the action area that includes these waterways.

### 5.7 Humpback Whale (*Megaptera novaeangliae*)

The humpback whale is listed as an endangered species under the ESA. Critical habitat has been neither designated nor proposed for humpback whale. For the purposes of the MMPA stock, humpback whales that feed off the West Coast are defined as comprising the Eastern North Pacific Stock. The winter migratory destination of this stock is primarily in coastal waters of Mexico and Central America (NMFS 2009).

### **5.7.1 Distribution & Habitat Requirements**

Humpback whales range from California to the Chukchi Sea, Hawaii, and the Mariana Islands (NMFS 1991). During summer, humpback whales in the North Pacific migrate and feed over the continental shelf and along the coasts of the Pacific Rim. Humpback whales winter in three separate wintering grounds: 1) the coastal waters along Baja California and the mainland of Mexico; 2) the main islands of Hawaii; and 3) the islands south of Japan (NMFS 1991).

Humpback whales inhabit waters over continental shelves, along their edges, and around some oceanic islands. During winter, they are usually found in tropical or temperate waters. During the summer, most migrate considerable distances to waters with higher biological productivity, typically at higher latitudes (City of Seattle 2007).

### **5.7.2 Status**

Worldwide, the population of humpbacks is about 10,000 (City of Seattle 2007). This is 8% of the historical population size, although this species is now protected and is considered to be recovering. The greatest threats to humpbacks today are entanglements in fishing gear, ship strikes, and coastal habitat pollution (City of Seattle 2007).

### **5.7.3 Presence in the Action Area**

The occurrence of humpback whale within Commencement Bay or the adjacent waters of Puget Sound within the action area is considered very unlikely or infrequent. Humpback whales are sighted only occasionally in south Puget Sound.

The number of humpback sightings in Puget sound reported to the Orca Network has increased from three in 2001 to 30 in 2004 (Falcone et al. 2005). Today, one or two humpback whales come into Puget Sound each year (J. Calambokidis, Cascadia Research, pers. comm. in City of Seattle 2007). Humpback whales, if present in the action area, would only be expected to occur in the waters of adjacent Puget Sound, and not within inner Commencement Bay.

## **5.8 Marbled Murrelet (*Brachyramphus marmoratus*)**

The marbled murrelet was listed as threatened in the states of California, Oregon, and Washington under the ESA on September 28, 1992 (57 FR 45328). Critical habitat was designated on June 24, 1996 (61 FR 26256).

### **5.8.1 Distribution & Habitat Requirements**

The marbled murrelet is a small sea bird that feeds primarily on fish and invertebrates in nearshore marine waters (City of Seattle 2007). Marbled murrelets nest in mature stands of coastal forest, typically closely associated with the marine environment, though murrelets have been documented in forested stands at distances of up to 50 miles inland in Washington (Hamer and Cummins 1991). Marbled murrelets require forests with large trees (greater than 30 inches diameter at breast height), multi-storied stands, and moderate canopy closure. (City of Seattle 2007).

### **5.8.2 Status**

The primary threat to marbled murrelet is the loss of suitable old-growth habitat adjacent to coastal foraging habitats. Key threats to marbled murrelet in the marine environment also include entanglement in nearshore fishing nets and pollution (City of Seattle 2007).

### **5.8.3 Presence in the Action Area**

The Sitcum, Blair, and Hylebos waterways do not provide suitable habitat for marbled murrelet. Marbled murrelets are occasionally seen in the waters of Commencement Bay, and could potentially be present year-round. However, WDFW PHS information does not identify any documented murrelet habitat or nesting sites within the vicinity. There is no mature forested habitat suitable for murrelet nesting within the action area or immediate vicinity, and, as a result, marbled murrelets do not frequently forage in Commencement Bay.

### **5.9 Georgia Basin DPS Boccaccio (*Sebastes paucispinis*)**

Boccaccio made up 8-9 percent of the commercial catch in Puget Sound in the 1970s, constituting most fish caught in the vicinity of Point Defiance and the Tacoma Narrows. Adult boccaccio are difficult to age, but it is suspected that they live as long as 54 years (Drake *et al.* 2008). Critical habitat for Georgia Basin (GB) DPS boccaccio is neither designated nor proposed at this time.

#### **5.9.1 Distribution and Habitat Requirements**

The range of boccaccio extends from Baja California to the Gulf of Alaska, and within this range, they are most common between Oregon and northern Baja California (Love *et al.* 2002). They are most frequently found in water depths between 160 and 820 feet, but may be found as deep as 1,560 feet (Orr *et al.* 2000). Copulation and fertilization occur in the fall, generally between August and November. Larvae and juvenile boccaccio may remain pelagic for 3.5–5.5 months, often associated with floating kelp mats, before settling to deeper water habitats. While generally associated with hard substrates, adults occasionally are found in mudflat habitat. While primarily bottom dwellers, boccaccio can be found as much as 30 feet off the sea floor (Love *et al.* 2002). Large adult boccaccio have greater movement potential than smaller species of rockfish, but their presence within the Georgia Basin seems to be patchy and limited to specific areas.

#### **5.9.2 Status**

GB DPS boccaccio has been deemed to be at high risk of extinction throughout all of its range by the NMFS Biological Review Team (BRT) reviewing the petition for listing. As compared with other species, boccaccio have declined significantly within Puget Sound. Once comprising nearly 5 percent of the total rockfish catch, there have been no confirmed observations of boccaccio in the Georgia Basin in approximately 7 years. Primary threats to GB DPS boccaccio identified by the BRT include areas of low dissolved oxygen within their range, potential for continued bycatch from recreational and commercial harvest, and a reduction in kelp habitat necessary for juvenile recruitment.

### **5.9.3 Presence in the Action Area**

Adult GB DPS bocaccio are not expected to occur within the portions of the Sitcum, Blair, or Hylebos waterways within the action area, as water depths are too shallow (maximum depth of approximately -51 feet), and substrates consist of silty sand and sandy silt. Juvenile or larval bocaccio could be present within this portion of the action area, but water quality conditions and the generally high shipping activity likely limit the habitat suitability within the action area. The nearshore habitat within the waterways is largely lacking any eelgrass, kelp, or other aquatic vegetation that would be preferred by juvenile and larval bocaccio rockfish.

Deep water portions of the action area that extend into Commencement Bay do provide suitable habitat for adult and juvenile bocaccio, and these species could be present within this portion of the action area at any time of the year.

### **5.10 Georgia Basin DPS Yelloweye Rockfish (*Sebastes ruberrimus*)**

GB DPS yelloweye rockfish have been deemed to be at moderate risk of extinction throughout all of its range by the NMFS BRT. In North Puget Sound, the frequency of yelloweye rockfish decreased from greater than 3 percent of total rockfish catch in the 1970s to 0.65 percent in the most recent samples. Critical habitat for this species is neither designated nor proposed at this time.

#### **5.10.1 Distribution and Habitat Requirements**

Yelloweye rockfish range from Baja California to the Aleutian Islands, but are most common from central California north to the Gulf of Alaska (Clemens and Wilby, 1961; Eschmeyer *et al.* 1983; Hart 1973; Love 1996). They are among the largest of the rockfish, weighing up to 25 pounds (Love *et al.* 2002). Living as long as 118 years, they are also among the most long-lived rockfish (Love 1996). Yelloweye rockfish occur in waters between 80-1,560 feet deep, but are most commonly found between 300 and 590 feet of depth.

In Puget Sound, yelloweye rockfish are thought to spawn during the winter to summer months, giving birth from early spring to late summer. Yelloweye juveniles settle quickly to shallow, high relief areas. As they grow, they continue to move toward deeper water habitats and continue to associate with high relief areas (Carlson and Straty 1981; Love *et al.* 1991). Yelloweye rockfish are less frequently observed in South Puget Sound than in North Puget Sound, primarily because of the relative lack of rocky, high relief habitat (Miller and Borton 1980).

#### **5.10.2 Status**

In South Puget Sound, the trend of decline is less clear, although the BRT concluded that the general trend of decline contributed significantly to the extinction risk of the DPS. Primary threats to GB DPS yelloweye rockfish cited by the BRT in the proposed listing include low intrinsic productivity combined with continued threats of bycatch from commercial and recreational harvest, loss of nearshore habitat, chemical contamination, and areas of low dissolved oxygen.



### **5.10.3 Presence in the Action Area**

Adult GB DPS yelloweye rockfish are not expected to occur within the portions of the Sitcum, Blair, or Hylebos waterways within the action area, as water depths are shallow (maximum depth of approximately -51 feet), and substrates consist of silty sand and sandy silt. No high relief, deep-water habitat occurs within this portion of the action area. Juvenile or larval yelloweye rockfish are also not likely to be present within these waterways during the in-water work window, as most yelloweye give birth in spring, and juvenile yelloweye tend to move quickly to deep-water habitat outside the action area. Additionally, water quality conditions and the generally high level of shipping activity likely limit the habitat suitability within the action area. Juvenile yelloweye rockfish do not use nearshore habitat frequently, and are most frequently found in association with floating kelp beds, and no kelp beds are found within the waterways.

Deep water portions of the action area that extend into Commencement Bay do provide suitable habitat for adult and juvenile yelloweye rockfish. These species could be present within this portion of the action area at any time of the year.

### **5.11 Georgia Basin DPS Canary Rockfish (*Sebastes pinniger*)**

GB DPS canary rockfish have been deemed to be at moderate risk of extinction throughout all of its range by the NMFS BRT. In Puget Sound proper, canary rockfish occurred at frequencies above 2 percent of total rockfish catch in the 1960s and 1970s, but by the late 1990s, had declined to about 0.76 percent.

#### **5.11.1 Distribution and Habitat Requirements**

Canary rockfish range between Baja California and the western Gulf of Alaska, and within this range are most common off the central coast of Oregon (Richardson and Laroche 1979). Canary rockfish primarily inhabit waters 160 to 820 feet deep but may be found at up to 1,400 feet of depth. They can live to be up to 84 years old, and were once considered fairly common in the greater Puget Sound area. Canary rockfish spawn once per year between September (at the southern end of the range) and December (Guillemot 1985), with birth occurring between September and March off the Oregon and Washington coasts, with peaks in December and January (Barss 1989; Wyllie-Echeverria 1987). Juvenile and adult canary rockfish tend to be associated with deep water and rocky and coarse habitats throughout the basins of Puget Sound (Miller and Borton 1980), and are broadly distributed throughout the Georgia Basin.

#### **5.11.2 Status**

Primary threats to GB DPS canary rockfish cited by the BRT in the proposed listing include low intrinsic productivity combined with continued threats of bycatch from commercial and recreational harvest, loss of nearshore habitat, chemical contamination, and areas of low dissolved oxygen.

#### **5.11.3 Presence in the Action Area**

Adult GB DPS canary rockfish are not expected to occur within the portions of the Sitcum, Blair, or Hylebos waterways within the action area, as water depths are shallow (maximum depth of approximately -51 feet), and substrates consist of silty sand and sandy silt. No high relief, deep-

water habitat occurs within the waterways. Juvenile or larval canary rockfish may be present within the waterways during the in-water work period, but they are not likely to be present for significant amounts of time, as they tend to move quickly to deep-water habitats. The nearshore habitat within the waterways lacks any eelgrass, kelp, or other aquatic vegetation that would be preferred by juvenile and larval canary rockfish. Additionally, water quality conditions and the generally high level of shipping activity likely limit the suitability of habitat within the action area.

Deep water portions of the action area that extend into Commencement Bay do provide suitable habitat for adult and juvenile canary rockfish. These species could be present within this portion of the action area at any time of the year.

### **5.12 Southern DPS Pacific Eulachon (*Thaleichthys pacificus*)**

The Southern DPS Pacific eulachon were listed as threatened under the ESA on March 18, 2010 (75 FR 13012). Critical habitat was recently proposed (January 5, 2011) for Pacific eulachon, but the proposed listing does not include any marine waters of Puget Sound or tributaries to Puget Sound (76 FR 515).

#### **5.12.1 Distribution & Habitat Requirements**

Pacific eulachon are endemic to the eastern Pacific Ocean ranging from northern California to southwest Alaska and into the southeastern Bering Sea. Eulachon typically spend 3–5 years in saltwater before returning to fresh water to spawn from late winter through early summer. Spawning grounds are typically in the lower reaches of larger rivers fed by snowmelt.

#### **5.12.2 Status**

Key threats to eulachon are overfishing in subsistence and commercial fisheries, continued/increased bycatch in commercial groundfish and shrimp fisheries, industry pollution of freshwater and marine habitats, human impact on spawning habitat through logging, dredging, and diversions, and climate change (Hay and McCarter 2000).

#### **5.12.3 Presence in the Action Area**

According to NMFS (76 FR 515), most Pacific eulachon production for the southern DPS occurs in the Columbia River Basin. There are no documented eulachon spawning sites in Puget Sound. Other Olympic Peninsula rivers that drain into the Strait of Juan de Fuca have been extensively surveyed for many years for the presence of salmonid species, and eulachon have not been observed (BRT 2010). The closest documented eulachon spawning site or migration corridor is the Elwha River on the Olympic Peninsula (NMFS 2010).

Pacific eulachon have not been documented within the Puyallup River Basin, and are not documented or expected to occur within any of the action area waterways.

## **6 CRITICAL HABITAT DESIGNATION FOR EACH ESU/DPS**

Critical habitat has been designated within the action area for Puget Sound ESU Chinook, Puget Sound DPS bull trout, and Southern Resident orcas. Critical habitat has been designated for

Eastern DPS Steller sea lion and marbled murrelet, but no critical habitat occurs within the action area. Critical habitat has been neither proposed nor designated for any of the ESA-listed ESUs of rockfish, Puget Sound DPS steelhead, or humpback whale.

**6.1 Puget Sound ESU Chinook Salmon**

The proposed critical habitat designation and description for Puget Sound ESU Chinook salmon are summarized in Table 8.

**Table 8. Salmon Critical Habitat Designations and Descriptions**

Species and ESU/DPS	Date of Critical Habitat Designation	Description of Critical Habitat
<b>Chinook Salmon</b>		
Puget Sound ESU	September 2, 2005	Puget Sound and several main tributaries on east side of Puget Sound

**6.1.1 PCEs of Designated Critical Habitat for Puget Sound ESU Chinook Salmon**

This section consists of a discussion of the primary constituent elements (PCEs) which have been identified for ESA-listed salmon, and the potential for their presence within the action area.

**1. Freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation, and larval development.**

*Action area:* This PCE is not present within the action area. The Sitcum, Blair, and Hylebos waterways, Commencement Bay, and adjacent waters of Puget Sound are saltwater tidal habitats.

**2. Freshwater rearing sites with water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility; water quality and forage supporting juvenile development; and natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.**

*Action area:* This PCE is not present within the action area. The Sitcum, Blair, and Hylebos waterways, Commencement Bay, and adjacent waters of Puget Sound are saltwater tidal habitats.

**3. Freshwater migration corridors free of obstruction with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival.**

*Action area:* This PCE is not present within the action area. The Sitcum, Blair, and Hylebos waterways, Commencement Bay, and adjacent waters of Puget Sound are saltwater tidal habitats.

- 4. Estuarine areas free of obstruction with water quality, water quantity and salinity conditions supporting juvenile and adult physiological transitions between fresh-and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels, and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation.**

*Action area:* Given its proximity to the mouth of the Puyallup River, the action area does provide for saltwater transition/estuarine habitat for Chinook salmon. The Puyallup River estuary has been significantly modified from its natural condition, as a result of decades of dredge and fill projects, including the relocation of the Puyallup River mouth (WDFW 2000). Out of more than 5,900 acres of estuary habitats that historically existed at the head of Commencement Bay, only about 200 acres remain (SSPS 2007). The freshwater, tidal–brackish transition zone now occurs in a channelized river with heavily armored shorelines (Simenstad 2000). The degraded water quality conditions and the highly developed nature of the estuarine habitat within the action area severely limit the amount of critical habitat function provided.

- 5. Nearshore marine areas free of obstruction 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, large rocks and boulder and side channels.**

*Action area:* The portion of the action area that is within the Sitcum, Blair, and Hylebos waterways provide very little functional nearshore marine habitat for Chinook salmon. Natural cover in the form of submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels is largely lacking throughout the action area. Riprap, pilings, and vertical bulkheads dominate the available cover. Water quality conditions are also severely impaired throughout most of the action area.

The portion of the action area that includes the waters of Commencement Bay and adjacent waters of Puget Sound have been extensively hardened and modified, but do provide some functional nearshore rearing and foraging habitat for Chinook salmon (Simenstad 2000). Much of the nearshore habitat in this portion of the action area has been artificially armored associated with road construction or residential development. Habitat complexity features such as overhanging vegetation and backwater areas are lacking. Large woody debris is frequently present at and above the Mean Higher High Water (MHHW) line and aquatic vegetation such as eelgrass and kelp beds are distributed patchily within the nearshore environment.

- 6. Offshore marine areas with water quality conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation.**

*Action area:*

The portions of the action area that are within the Sitcum, Blair, and Hylebos waterways are not considered offshore marine areas. The waters of Commencement Bay and adjacent

Puget Sound do provide offshore marine habitat for Chinook salmon, and do provide water quality and forage conditions suitable for growth and maturation of Chinook salmon.

## 6.2 Puget Sound DPS Bull Trout

The proposed critical habitat designation and description for Puget Sound DPS bull trout are summarized in Table 9.

**Table 9. Bull Trout Proposed Critical Habitat Designation and Descriptions**

Species and ESU/DPS	Date of Critical Habitat Designation	Description of Critical Habitat
<b>Bull Trout</b>		
Puget Sound DPS	October 18, 2010	Marine areas along east side of Puget Sound and Puget Sound tributaries to the east.

### 6.2.1 PCEs of Designated Critical Habitat for bull trout.

This section consists of a discussion of the PCEs designated for bull trout critical habitat and the potential for their presence within the action area.

**1. Springs, seeps, groundwater sources, and subsurface water connectivity (hyporheic flows) to contribute to water quality and quantity and provide thermal refugia.**

*Action area:* This PCE is not present within the action area. There are no springs or seeps or significant groundwater sources in the action area, and the action area does not provide thermal refugia for bull trout.

**2. Migratory 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.**

*Action area:* In general, migratory habitat for Puget Sound DPS bull trout within the portion of the action area that is within the Sitcum, Blair, and Hylebos waterways has been severely degraded due to the extent of development. However, this portion of the action area does provide a migratory corridor for bull trout.

Within the waters of Commencement Bay and adjacent waters of Puget Sound riparian habitat and water quality are also degraded, but to a lesser extent and the action area provides suitable migratory and foraging habitat for Puget Sound DPS bull trout.

**3. An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.**

*Action area:* Aquatic macro-invertebrates and forage fish occur within the waters of Commencement Bay and adjacent waters of Puget Sound, and occur to a lesser extent within the Sitcum, Blair, and Hylebos waterways. There is little habitat for terrestrial organisms of riparian origin located in the nearshore environment within the waterways,

and bull trout are not known to forage in these waterways; however, the waterways do provide a moderate food base for bull trout. Nearshore habitats within Commencement Bay and adjacent waters of Puget Sound do provide potentially suitable habitat for terrestrial organisms of riparian origin, and likely provide a more substantial food base for bull trout.

- 4. Complex river, stream, lake, reservoir, and marine shoreline aquatic environments and processes with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure.**

*Action area:* Complex habitat features are largely non-existent within the portions of the Sitcum, Blair, and Hylebos waterways within the action area. The waterways are located in a heavily developed area with little remaining undisturbed habitat. Throughout most of this portion of the action area, riprap, pilings, and vertical bulkheads dominate the available cover. However, a few mitigation and restoration sites have been created within the Sitcum, Blair, and Hylebos waterways, and these sites do provide for some habitat complexity.

The portion of the action area that includes the waters of Commencement Bay and adjacent waters of Puget Sound have been extensively hardened and modified, but do provide some functional marine shoreline habitat (Simenstad 2000). Much of the nearshore habitat in this portion of the action area has been artificially armored associated with road construction or residential development. Habitat complexity features such as overhanging vegetation and side channels are lacking. However, large woody debris is frequently present at and above the Mean Higher High Water (MHHW) line and aquatic vegetation such as eelgrass and kelp beds are distributed patchily within the nearshore environment.

- 5. Water temperatures ranging from 36 to 59°F (2 to 15°C), with adequate thermal refugia available for temperatures at 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.**

*Action area:* Elevated temperatures are not typically a problem in marine environments such as the Sitcum, Blair, and Hylebos waterways; Commencement Bay; or the waters of Puget Sound. At a minimum, the action area does provide seasonally appropriate water temperatures, suitable for bull trout migration.

- 6. In spawning and rearing areas, substrate of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. A minimal amount of fine sediment, generally ranging in size from silt to coarse sand, embedded in larger substrates, is characteristic of these conditions. The size and amounts of fine sediment suitable for bull trout will likely vary from system to system.**

*Action area:* This PCE is not present within the action area. No population of bull trout is known to spawn in the action area.

- 7. A natural hydrograph, including peak, high, low, and base flows within historic and seasonal ranges or, if flows are controlled, minimal flow departure from a natural hydrograph.**

*Action area:* The hydrology/hydraulics within the action area are concurrent with the tides of Commencement Bay and Puget Sound.

- 8. Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited.**

*Action area:* In general, water quality throughout the action area has been degraded. However, the Sitcum, Blair, and Hylebos waterways, Commencement Bay, and adjacent waters of Puget Sound do provide sufficient water quality and quantity conditions for bull trout migration. Commencement Bay and the adjacent waters of Puget Sound also provide suitable water quantity and quality for bull trout rearing. The action area does not provide water temperatures or water quality conditions suitable for bull trout reproduction, and no populations of bull trout are known to spawn within the action area.

- 9. Sufficiently low levels of occurrence of nonnative predatory (e.g. lake trout, walleye, northern pike, smallmouth bass), interbreeding (e.g. brook trout), or competing (e.g. brown trout) species that, if present, are adequately temporarily and spatially isolated from bull trout.**

*Action area:* The action area is not known to have significant populations of nonnative predatory, interbreeding, or competing species.

### **6.3 Steller Sea Lion—Eastern DPS**

The proposed action does not occur within designated critical habitat for the eastern DPS of Steller sea lion. Critical habitat for Steller sea lion was designated in 1993 and includes a 20-nautical mile buffer around selected haulouts and rookeries and three major foraging areas identified in the final rule. No designated Steller sea lion critical habitat is present within the action area.

### **6.4 Southern Resident DPS Orca**

Critical habitat has been designated for the Southern Resident DPS of orcas that may occur within the action area of the Sitcum, Blair, and Hylebos waterways. Table 10 summarizes critical habitat designations and descriptions for orca.

**Table 10. Orca Critical Habitat Designation and Description**

Species and ESU/DPS	Date of Critical Habitat Proposal	Description of Critical Habitat
<i>Orca</i>		
Southern Resident DPS	November 29, 2006	Haro Strait and San Juan Islands, Puget Sound, and Strait of Juan de Fuca

**6.4.1 Primary Constituent Elements of Designated Critical Habitat for Southern Resident DPS of Orcas**

This section consists of a discussion of the PCEs identified for ESA-listed orcas and the potential for their presence within the action area.

**1. Water quality to support growth and development;**

*Action area:* The waters of the Sitcum, Blair, and Hylebos waterways do not provide suitable water quality conditions for orca growth or development. The portion of the action area that extends into Commencement Bay and adjacent waters of Puget Sound does likely provide suitable water quality conditions for orca migration and may provide suitable conditions for 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;**

*Action area:* The waters of the Sitcum, Blair, and Hylebos waterways do provide moderately suitable migratory habitat for Chinook salmon, which is the orca’s primary prey species. However, these waterways are not suitable for orca presence and orca do not occur within the waterways. The portion of the action area that extends into Commencement Bay and adjacent waters of Puget Sound does provide suitable habitat for orca, and provides suitable habitat for orca prey species, however, not likely in numbers sufficient for individual growth, reproduction, development, or population growth.

**3. Passage conditions to allow for migration, resting, and foraging. NMFS is gathering data to assist it in evaluating sound as a potential PCE.**

*Action area:* The waters of the Sitcum, Blair, and Hylebos waterways do not provide suitable conditions for orca migration, resting, or foraging due to their small size, constrained nature, and high level of human activity and shipping traffic. The portion of the action area that extends into Commencement Bay and adjacent waters of Puget Sound does provide suitable passage conditions for orca migration, resting and foraging.

**6.5 Marbled Murrelet**

The proposed action does not occur within designated critical habitat for marbled murrelet. Critical habitat for marbled murrelet was designated in 1996 and includes 3,887,000 acres of land in 32 Critical Habitat Units identified in the final rule. No designated marbled murrelet critical habitat is present within the action area or vicinity.



## 7 ENVIRONMENTAL BASELINE

This section outlines the presence and condition of aquatic and terrestrial habitat features within the action area as they pertain to the species addressed in this PBE. The following sections summarize the baseline habitat conditions at both the action area and watershed scales, and then analyze the likely effects that the proposed action would have on the baseline conditions at both scales.

### 7.1 General Setting

Beginning in the late 19th century, development of Commencement Bay has fragmented the estuarine habitats contained therein (USACE *et al.* 1993). By 1917, several waterways, including the Sitcum, Blair, and Hylebos, had been created by dredging and filling mudflats in Commencement Bay. Industrial development and altered shorelines, consisting of vertical or steeply sloping bulkheads and piers, fragmented the remaining estuarine habitat (Kerwin 1999). Historical migrations of anadromous fish into side channels and sloughs have largely been eliminated. Saltwater transition zones, an important ecological habitat for the development of young salmonids, have all but disappeared. Chemical contamination of sediments within the bay has compromised the effectiveness of the remaining habitat (USACE *et al.* 1993; USFWS and NOAA 1997; Collier *et al.* 1998). Despite these extensive alterations to the natural habitat of Commencement Bay, some biological resources still use the remaining habitat (USFWS and NOAA 1997).

Extensive intertidal mudflats once covered an estimated 2,100 acres of Commencement Bay. In 1992, approximately 180 acres remained (USACE *et al.* 1993). Dredging and other anthropogenic activity within the bay are responsible for this change in habitat. The majority of the remaining mudflat habitat is located near the mouth of the Puyallup River within the Hylebos, Middle, Wheeler-Osgood, and St. Paul waterways (USACE *et al.* 1993; USFWS and NOAA 1997).

### 7.2 Terrestrial Habitat

There is little to no natural terrestrial habitat within the action area. The terrestrial portions of the action area that are at the sites of the proposed action consist primarily of manmade hardened shoreline, including bulkheads and riprap. A few small upland areas are dominated by scattered grasses and weedy forbs growing near the tops of banks and along riprapped areas, but terrestrial habitat is otherwise lacking. Within the portion of the action area that includes the zone of influence for terrestrial noise, there are scattered terrestrial habitats, including some small isolated patches of forested habitat in the hills surrounding the immediate project vicinity. However, most of the natural terrestrial habitat in the vicinity has been developed for industrial and residential uses, and there is no suitable terrestrial habitat for any ESA-listed species within the action area.

### 7.3 Riparian Habitat

Riparian habitat is also severely limited throughout the action area. At the immediate location of the sites of the proposed action, riparian habitat is non-existent, consisting only of hardened bulkheads and/or riprap. There is little to no natural vegetation to provide shade or natural bank stability. This is true throughout most of the Sitcum, Blair, and Hylebos waterways;

however, there are a few restoration and mitigation sites on portions of the waterways within the action area where riparian conditions have been restored and some riparian vegetation exists.

Riparian conditions are similar within the portion of the action area that extends into inner Commencement Bay. The shoreline throughout inner Commencement Bay has been armored with riprap and there is little or no overhanging riparian vegetation. A narrow band of forested hillside is present along the north shore of Commencement Bay along Marine View Drive, but this provides little riparian function. In general, riparian habitat within the action area is of limited quantity and quality.

#### **7.4 Aquatic Habitat**

An evaluation of the baseline aquatic habitat conditions within the action area was conducted according to the guidance outlined in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale (NMFS 1996). The evaluation assessed several baseline indicators of habitat quality and determined whether the proposed action would restore, maintain, or degrade existing baseline conditions at the watershed and action area level. Table 11 and Table 12 show the results of this analysis.

In general, the environmental baseline conditions within the action area are severely degraded. As indicated in Table 11 and Table 12, most of the indicators of environmental condition are not properly functioning, or are functioning at risk, at both the watershed and action area scales. The Sitcum, Blair, and Hylebos waterways within the action area are maintained artificially as shipping channels. As a result, the natural functional processes of these waterways have been altered dramatically. There is no functioning floodplain within the action area, and sediments within the action area are predominantly silts and sands. Aquatic habitat conditions within the portion of the action area that extends into inner Commencement Bay are better, though still degraded.

**Table 11. Overview of Environmental Baseline Conditions at Action Area and Watershed Scales**

Diagnostic/Pathway Indicators	Baseline Environmental Conditions		Effects of Project Activities	
	Action Area	Watershed	Action Area	Watershed
<i>Water Quality</i>				
Temperature	PF*	FR	Maintain	Maintain
Sediment/Turbidity	NPF	NPF	Temporarily Degrade	Maintain
Chemical Contamination/Nutrients	NPF	NPF	Maintain	Maintain
<i>Habitat Access</i>				
Physical Barriers	PF	NPF	Maintain	Maintain
<i>Habitat Elements</i>				
Substrate	NPF	FR	Maintain	Maintain
Large Woody Debris	NPF	FR	Maintain	Maintain
Pool Frequency	N/A	N/A	Maintain	Maintain
Pool Quality	N/A	N/A	Maintain	Maintain
Off-Channel Habitat	NPF	FR	Maintain	Maintain
Refugia	NPF	FR	Improve	Maintain
<i>Channel Conditions/Dynamics</i>				
Width/Depth Ratio	NPF	NPF	Maintain	Maintain
Streambank Condition	PF	NPF	Maintain	Maintain
Floodplain Connectivity	NPF	NPF	Maintain	Maintain
<i>Flow/Hydrology</i>				
Change in Peak/Base Flows	PF	NPF	Maintain	Maintain
Increase in Drainage Network	NPF	NPF	Maintain	Maintain
<i>Watershed Conditions</i>				
Road Density and Location	NPF	NPF	Maintain	Maintain
Disturbance History	NPF	NPF	Maintain	Maintain
Riparian Reserves	NPF	FR	Maintain	Maintain

\*NPF=Not properly functioning; FR=Functioning at Risk; PF=properly functioning

**Table 12. Overview of Environmental Baseline Conditions Specific to Bull Trout at Action Area and Watershed Scales**

Diagnostic/Pathway Indicators	Effects of Project Activities	
	Action Area	Watershed
<i>Subpopulation Characteristics within Subpopulation Watersheds</i>		
Subpopulation Size	Maintain	Maintain
Growth and Survival	Maintain	Maintain
Life History Diversity and Isolation	Maintain	Maintain
Persistence and Genetic Integrity	Maintain	Maintain
Integration of Species and Habitat Conditions	Maintain	Maintain

## 8 MATRIX OF PATHWAYS AND INDICATORS ANALYSIS

### 8.1 Water Quality

#### 8.1.1 Water Temperature

None of the waterbodies within the action area are listed for high water temperatures on the Ecology 303(d) list. While the relative lack of riparian vegetation may affect water temperatures within the action area to some degree, water temperatures are not typically elevated in large tidal systems such as Commencement Bay and associated marine water. Baseline conditions at the action area scale therefore are determined to be **properly functioning**. Water temperature conditions throughout the Puyallup River watershed are likely elevated, due to the extent of historic development, encroachment into riparian areas, and channelization of streams. Baseline conditions for water temperature at the watershed scale are determined to be **functioning at risk**.

The proposed action will **maintain** this indicator at both the action area and watershed scales. The project will not result in any change in the composition of riparian vegetation or riparian habitat structure within the action area, nor will it result in any measurable effect on water temperatures within the Sitcum, Blair, or Hylebos waterways.

#### 8.1.2 Sediment/Turbidity

Sediments within the Sitcum, Blair, and Hylebos waterways within the action area are predominantly fine-grained, and generally consist of sand and silty sand, as well as organic sediments that enter the action area from Hylebos and Wapato Creeks. While no specific data is available regarding substrate composition, fine-grained materials are certainly present in high quantities within the waterways, and to a lesser extent within inner Commencement Bay.

High sediment and turbidity are major factors within the Sitcum, Blair and Hylebos waterways, primarily due to turbidity from the Puyallup River, which enters the waterways on the flood tide. In inner Commencement Bay, turbidity is also a concern for similar reasons, though in deep water habitats, turbidity is likely less of an issue.

Within the action area, sediments are primarily fine-grained and turbidity is elevated throughout much of the action area. Erosion in the upper watershed naturally contributes relatively high sediment loads to the Puyallup River, and elevated turbidity in the river is largely a natural condition. Nevertheless, baseline conditions for sediment and turbidity are elevated above the levels published by NMFS as being necessary for proper functioning condition for salmonids, and are therefore determined to be **not properly functioning**. The proposed action has the potential to increase sediment and turbidity temporarily within the action area during pile driving activities, but the conservation measures proposed will be sufficient to ensure no long-term impacts on sediment or turbidity either within the action area or at the watershed scale. The proposed action may **temporarily degrade** this indicator, but will **maintain** it at both the action area and watershed scales in the long term.

### 8.1.3 Chemical Contamination/Nutrients

The Sitcum, Blair and Hylebos waterways are within the Commencement Bay Nearshore-Tideflats (CB-NT) Superfund site. The EPA placed the site on the Superfund National Priorities List (NPL) in 1983 due to widespread contamination of the water, sediments, and upland areas (EPA 1996; FR 96-21629).

The EPA partially deleted the Blair Waterway from the NPL in 1996. This partial deletion pertains only to the sediments contained in the waterway and upland properties draining to the Blair Waterway (FR 96-21629).

Ecology maintains a database of sites in Washington that are suspected and/or confirmed to be contaminated relative to the MTCA. Sites identified in Ecology’s database that may be within 25 feet of the action areas addressed in this study are listed in Table 13 below.

**Table 13. Ecology MTCA Sites Within Approximately 25 Feet of Sites of Proposed Action**

Facility Name	Ecology Site Name	Regulatory Status
APM Terminals	Tacoma Port Terminal 7	No Further Action (NFA) determination 1996
Terminal 7	—	—
OCT	—	—
Husky Terminal	—	—
Blair Dock	Tacoma Port BP	Closed May 2000
Parcel 115	Tacoma Port Terminal 7	NFA determination 1996
Trident	Tacoma Port Early Business Center	Awaiting cleanup
	Pier 24/25	Construction complete—performance monitoring
	U.S. Army Pier 23	Cleanup started
Brac Property	Tacoma Port Parcel 4	Cleanup started
Parcel 86	Petroleum Reclaiming Services	Cleanup started
Parcel 99	Arkema	Cleanup started
Parcel 105	Atofina	Cleanup started

Note: — = no site listing

#### 8.1.3.1 Water

According to Ecology’s 2008 303d list, three portions of the Hylebos Waterway and two areas near the central portion of the Blair Waterway are listed as Category 2 and/or Category 5 waters. The Sitcum Waterway is not listed on Ecology’s 303d list of impaired waters. Table 14 provides definitions for each listing Category.

**Table 14. Ecology 303(d) Listing Category Definitions**

<b>Category 1</b>	Meets tested standards for clean waters
<b>Category 2</b>	Waters of concern
<b>Category 3</b>	Insufficient data
<b>Category 4</b>	Polluted waters that do not require a total maximum daily load (TMDL)
<b>4a</b>	Has a TMDL
<b>4b</b>	Has a pollution control program
<b>4c</b>	Is impaired by a non-pollutant
<b>Category 5</b>	Polluted waters that require a TMDL

### **8.1.3.2 Sediment**

**Hylebos Waterway** - Ecology's 303d list indicates the sediments within the Hylebos Waterway are classified as Category 4B. Sediments in the Hylebos Waterway were contaminated with polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), wood waste, and metals (zinc, copper, lead and arsenic) (EPA 2010). Dredging to remove contaminated sediment has been completed in the "mouth" portions of the waterway north of the East 11th Street Bridge in the vicinity of the action areas addressed in this PBE.

**Blair Waterway** - One area near the central portion of the Blair Waterway is listed on Ecology's 303d list as Category 1 and 2 sediments. Contaminated sediments were removed from the navigation channel and most of the berths in the Blair Waterway in the mid-1990s. Additional dredging for deepening and widening of the Blair Waterway has been completed since that time. The Blair Waterway is generally been considered to be of low concern with respect to sediment contamination by the Dredge Material Management Program (DMMP) (DMMP 2009).

**Sitcum Waterway** - Ecology's 303d list indicates the sediments within the Sitcum Waterway are classified as Category 4B. Contaminated sediments were also removed from Sitcum Waterway in the mid-1990s, and the navigation channel has been deepened an additional 7 feet since that time. The Sitcum Waterway is currently considered to be of low concern with respect to sediment contamination (USACE 2000).

Within the action area and watershed, due to the fact that there are several reaches on the 303(d) list, and due to the relatively high levels of historic chemical contamination, baseline conditions for chemical and nutrient contamination are determined to be **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales. The proposed conservation measures will be sufficient to ensure that the project does not result in any contaminant releases. The proposed action will result in a net improvement in chemical contamination conditions within the Sitcum, Blair, and Hylebos waterways in the long term, due to the removal of several hundred creosote-treated timber piles over the lifetime of the

permit. This will result in a significant net benefit to water quality within the action area, but is not expected to be sufficient to restore proper functioning condition.

## **8.2 Habitat Access**

### **8.2.1 Physical Barriers**

There are no major barriers to fish migration within the action area. The Sitcum, Blair, and Hylebos waterways are substantially altered and maintained as shipping channels, but do provide suitable migratory pathways to upstream waters. For this reason, within the action area, baseline conditions for physical barriers are determined to be **properly functioning**. At the watershed scale, barriers to anadromous fish migration are present in several areas within the Puyallup River Basin. A water diversion at river mile 11.7 moves Wapato Creek into a collection pipe that actively removes all flow from the upper Wapato Creek channel into a stormwater bypass system that flows into the Puyallup River (Kerwin 1999). While the project was conceived to prevent flooding along Wapato Creek by diverting peak flows into the stormwater bypass system, it operates in reverse of its intention. Under normal flows, the project diverts all the water of upper Wapato Creek into the bypass and only flood flows into lower Wapato Creek. This diversion has significantly contributed to the critical low flows within the subbasin in the last 20 years. Within the Puyallup River Basin, baseline conditions for physical barriers are determined to be **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales. The proposed action will not pose a significant barrier to fish passage at any range of flow at either the action area scale or the watershed scale.

## **8.3 Habitat Elements**

### **8.3.1 Substrate**

Sedimentation throughout the watershed has altered the substrate within the action area. Sediments within the action area are predominantly fine-grained sands and silty sands, and no substrate is present that is adequate for salmonid spawning. Sedimentation is likely a larger problem within the Blair and Hylebos waterways due to the relatively high sediment load provided by Wapato and Hylebos creeks. At the watershed scale, due to significant alteration of natural channel morphology, conditions are also significantly altered from normal conditions. However, many streams in the upper reaches of the watershed do have substrates that provide proper functioning condition for salmonids. Within the action area, baseline conditions for substrate are determined to be **not properly functioning**. At the watershed scale, baseline conditions are determined to be **functioning at risk**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action has the potential to increase sediment and turbidity temporarily within the action area, but this short-term effect will not result in a measurable effect on substrate embeddedness within the action area. The proposed action will have no measurable long-term impacts on substrate at either the action area or the watershed scales.

### 8.3.2 Large Woody Debris

There is very little LWD within the portion of the action area within the Sitcum, Blair, and Hylebos waterways. These waterways are largely devoid of natural vegetation or habitat. A few restoration and mitigation sites on portions of the waterways that are within the action area have been restored, and some LWD has been recruited. Within the portion of the action area that includes inner Commencement Bay, there are areas along the shoreline where LWD has been recruited, mostly along the high water line in areas that have been armored with riprap. Within the action area, baseline conditions for LWD are determined to be **not properly functioning**. Within the Puyallup River Basin, LWD levels are lower than would be necessary for proper functioning condition, but opportunity does exist for recruitment. Baseline conditions for LWD at the watershed scale are determined to be **functioning at risk**.

The proposed action will **maintain** this indicator at the action area scale and **maintain** it at the watershed scale in the long term. The proposed action will not result in any impacts to riparian vegetation or habitat and will not affect the opportunity for future recruitment.

### 8.3.3 Pool Frequency

The action area provides marine and estuarine habitat and is not a riffle/pool system. This indicator does not apply. The proposed action will have no impact on pool frequency at either the action area or watershed scales.

### 8.3.4 Pool Quality

For the same reasons given for pool frequency, this indicator does not apply. The proposed action will have no impact on pool frequency at either the action area or watershed scales.

### 8.3.5 Off-Channel Habitat

There is very little natural off-channel habitat within the action area. Historical migrations of anadromous fish into side-channels and sloughs within the action area have largely been eliminated (Kerwin 1999). Saltwater transition zones, an important ecological habitat for the development of young salmonids, are limited in quantity and quality. A few restoration and mitigation sites have been established within the Sitcum, Blair, and Hylebos waterways that do provide some off-channel and back water habitat. However, off-channel habitat is not present in the quantity or quality necessary to provide proper functioning condition. Baseline conditions for off-channel habitat are **not properly functioning** within the action area. At the watershed scale, historic development throughout the Puyallup River Basin has resulted in impacts to the quantity and quality of off-channel habitats. Baseline conditions for off-channel habitat at the watershed scale are determined to be **functioning at risk**.

The proposed action will **maintain** this indicator at the action area scale and at the watershed scale. The proposed action will not result in any impacts to off-channel habitat at either the watershed or the action area scale.

### 8.3.6 Refugia

As described previously, there is very little functional off-channel or side channel habitat within the action area that would provide refugia for sensitive aquatic species. While there are a few



mitigation and restoration sites within the action area that do provide significant function as refugia, they are not sufficient to provide for proper functioning condition. Baseline conditions for refugia within the action area are **not properly functioning**. For similar reasons, baseline conditions for refugia at the watershed scale are determined to be **functioning at risk**.

The proposed action will **maintain** this indicator at both the action area and watershed scales. The proposed action will not result in any impacts to the quality or quantity of refugia at either the watershed or the action area scale.

## **8.4 Channel Conditions & Dynamics**

### **8.4.1 Width/Depth Ratio**

The width/depth ratio within the action area is likely in excess of the ratio required for proper functioning condition. The Sitcum, Blair, and Hylebos waterways are artificially maintained as industrial shipping channels and do not provide for natural morphological channel dynamics. Conditions are likely similar throughout much of the lower the Puyallup River Basin, as development pressures have resulted in significant alterations to natural channel morphology. For this reason, this indicator is considered **not properly functioning** at the action area and watershed scales.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not result in any impacts to the channel width/depth ratio at either the action area or watershed scales.

### **8.4.2 Streambank Condition**

Riparian vegetation is largely lacking throughout the action area, particularly within the Sitcum, Blair, and Hylebos waterways. However, very little active streambank erosion is occurring because almost all of the streambank has either been armored with riprap or consists of hardened bulkheads. Within the action area, therefore, streambank condition is determined to be **properly functioning**. Within the greater watershed, streambank conditions are likely less stable, due to the relative lack of riparian vegetation on streams within the lower Puyallup River Basin. While no specific information is available, it is estimated that less than 80% of streambanks in the watershed would be considered stable. Streambank condition at the watershed scale, therefore, is considered **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not result in any impacts to streambank stability either within the action area or at the watershed scale.

### **8.4.3 Floodplain Connectivity**

Peak and base flow conditions within the action area are tidal, and therefore are functioning naturally. At the action area scale, peak and base flow conditions are considered to be **properly functioning**. At the watershed scale, given the amount of development in the lower watershed as compared to an undisturbed watershed, there have been pronounced changes in peak/base flow conditions. At the watershed scale, therefore, floodplain connectivity is determined to be **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not result in any impacts to floodplain connectivity within the action area or at the watershed scale.

## **8.5 Flow/Hydrology**

### **8.5.1 Change in Peak/Base Flows**

The Sitcum, Blair, and Hylebos waterways suffer from impaired runoff conditions as a result of the absence of riparian vegetation along the riparian zone. The Sitcum Waterway does not contain any streams entering within its extent, but contains hardened shoreline and lacks riparian vegetation to hold back peak surface flows. Wapato Creek, which is located in the east portion of the Blair Waterway, suffers from frequent flooding and erosion because of the commercial and residential development that has taken place along both sides (Kerwin 1999). Hylebos Creek, which flows into the east portion of the Hylebos Waterway, likely suffers from increased runoff and peak flows from the lack of a vegetated riparian corridor as well. Peak and base flows within the action area and at the watershed scale are determined to be **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not result in any impacts to base or peak flows either within the action area or at the watershed scale.

### **8.5.2 Increase in Drainage Network**

The increase in the drainage network at both the watershed and action area scales due to development and road construction have been substantial. The drainage network at both the action area and watershed scales is **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not create any increases to the drainage network.

## **8.6 Watershed Conditions**

### **8.6.1 Road Density & Location**

While information describing the specific road density and locations within the action area and watershed is not available, it is clear that road density is very high at both scales. Within the action area, the banks of the Sitcum, Blair, and Hylebos waterways are almost completely developed. At the watershed scale, the road density is very high, particularly in the lower watershed, and there are valley bottom roads associated with almost all of the major drainages. Therefore, the indicator for road density and location at both the action area and watershed scales is **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not result in any impacts to road density or location either within the action area or at the watershed scale.

### **8.6.2 Disturbance History**

Disturbance levels within the action area and at the watershed scale are far above the threshold for proper functioning condition. Terrestrial habitats adjacent to the Sitcum, Blair, and Hylebos

waterways consist largely of hardened shorelines and bulkheads constructed on fill material. Development throughout the greater Puyallup River Basin has resulted in significant impacts to sensitive habitat areas such as riparian and wetland habitats. The indicator for disturbance history within the action area and at the watershed scale is **not properly functioning**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action will not result in any significant amount of new disturbance at either the action area or the watershed scale.

### **8.6.3 Riparian Reserves**

The riparian reserve system within the action area scale is **not properly functioning**. There is little to no native riparian vegetation within the action area, and the riparian vegetation that does exist occurs in highly fragmented, unconnected patches. At the watershed scale, there have also been significant impacts to the riparian habitats, though there are still significant areas of interconnected riparian habitats. At the watershed scale, this indicator is considered to be **functioning at risk**.

The proposed action will **maintain** this indicator at both the action area and watershed scales in the long term. The proposed action does not propose any new riparian disturbance, and will not affect the quality or quantity of riparian reserves at either the action area or the watershed scale.

## **8.7 Pathways and Indicators Specific to Bull Trout Only**

The USFWS provides a matrix of pathways and indicators specific to bull trout. The proposed action will not affect these indicators significantly, and therefore they are not addressed in detail here. The specific indicators are:

- Subpopulation size
- Growth and survival
- Life history diversity and isolation
- Persistence and genetic integrity
- Integration of species and habitat conditions

The proposed action will maintain all of these indicators at both the action area and watershed scales in the long term. It is possible that bull trout migrating in the action area may be present when in-water work is being conducted, but bull trout are likely not present within the action area for significant periods. There is little or no suitable bull trout rearing or foraging habitat within the action area. The proposed action will have no measurable effect on any of the indicators of proper functioning condition for bull trout habitat.

## **9 EFFECTS OF THE ACTION**

### **9.1 Direct Effects**

Direct effects are the direct or immediate impacts of the proposed action to federally listed species and their habitat. This section addresses potential direct effects that listed species and

critical habitats could experience as a result of the proposed action and the likely response to each potential direct effect.

### **9.1.1 Water Quality**

Increased levels of sedimentation and turbidity could result from any sediment-disturbing activities. The pile removal and installation activities that comprise the proposed action could disturb sediments and temporarily increase turbidity within the action area. Increased levels of sedimentation and turbidity could have temporary negative impacts on habitat for listed fish species and, if any listed fish species are present within the action area during the time of construction, could affect them directly.

All of the sites of the proposed action are located within areas that either are currently or were formerly within the CB-NT Superfund site. The Blair Waterway has been cleaned up and removed from the Superfund. Seven of the 12 sites are within 25 feet of areas designated as MTCA sites by Ecology (Table 13). Water quality is already a limiting factor within the action area, and temporary increases in sedimentation and turbidity during pile removal and installation activities could result in increased potential for negative effects.

Shipping traffic throughout the action area routinely disturbs sediments. Any temporary increase in turbidity as a result of the proposed action is not anticipated to measurably exceed levels caused by normal periodic increases due to this industrial traffic on the river. The low volume and slow velocity of water movement within the action area will also greatly minimize the potential negative effects of temporarily increased turbidity levels. In addition, pile removal and installation activities will adhere to conservation measures established during EPA CERCLA review and Ecology MTCA review.

With over-water work, there is the potential for construction debris to enter the waterway. There is also slight potential for leaks and spills of fuel, hydraulic fluids, lubricants, and other chemicals from equipment and storage containers associated with the project.

The contractor will be required to provide and implement conservation measures including an SPCC plan (see Section 3.2 above). As part of this plan, a floating containment boom will be deployed during project implementation, which will contain any debris that enters the waterway during the proposed action. Additional conservation measures have been included to avoid any potential impacts from hazardous materials. These measures include inspecting construction equipment daily to ensure that there are no leaks of hydraulic fluids, fuel, lubricants or other petroleum products and locating temporary material and equipment staging areas above the OHWM of the action area waterbody and outside environmentally sensitive areas.

The following ESA-listed species and designated critical habitat have the potential to be exposed to the direct effects of temporarily decreased water quality conditions that could occur within the action area during project construction.

- Puget Sound ESU Chinook salmon
- Puget Sound DPS steelhead
- Puget Sound DPS bull trout
- GB DPS bocaccio rockfish
- GB DPS yelloweye rockfish
- GB DPS canary rockfish
- Designated critical habitat for Puget Sound DPS orca
- Designated critical habitat for two ESUs/DPSs of salmon and bull trout

Orca, Steller sea lion, and marbled murrelet would not be exposed to any direct effects of temporarily decreased water quality, as they are not expected to be present within the portion of the action area where water quality conditions could be temporarily affected. Temporary water quality effects will be localized to the area within 150 feet of the location of the proposed action, and these areas do not provide suitable habitat for orca, Steller sea lion, or marbled murrelet.

During the in-water work period, outmigrating juveniles and migrating adult salmon and steelhead could be present within the action area. Juvenile rockfish species could also be present within the action area during this timeframe, though their presence is unlikely. These species, if present, would likely be migrating and would not be present within the action area for any significant period.

It is possible that adult and/or juvenile Chinook salmon, steelhead, and bull trout, as well as juvenile rockfish, could be present within the action area and could be exposed to temporarily decreased water quality conditions, including temporarily elevated turbidity levels and/or potential debris contamination. The geographic extent and duration of any potential short-term decreases in water quality conditions are expected to be limited, and the conservation measures implemented for the proposed action (including the implementation of an SPCC plan) will be sufficient to minimize any effects. It is anticipated that any steelhead present would respond by temporary avoidance of, or more rapid migration through, the action area. The portion of Blair Waterway within the action area that lies within Commencement Bay has been designated critical habitat for two ESUs/DPSs of salmon and bull trout. This area has also been designated as critical habitat for Southern Resident DPS orcas.

The portion of the action area that could be potentially affected by temporarily decreased water quality is designated critical habitat for Puget Sound ESU Chinook salmon, Puget Sound DPS bull trout, and Southern Resident orca. Designated critical habitats within the action area may experience temporarily increased levels of turbidity during the proposed action. The geographic extent and duration of any potential short-term increases in sedimentation or turbidity are expected to be limited, and are not expected to exceed baseline sedimentation conditions measurably. Any temporarily elevated sedimentation levels will not result in any significant effect to designated or proposed critical habitats. The SPCC plan and other conservation measures implemented as part of this proposed action will be sufficient to ensure that any

potential water quality impacts will not result in any adverse effects to any designated critical habitats.

The long-term effect on water quality within the action area will be a net improvement because of the removal of creosote-treated piles and their replacement with ACZA-treated timber and/or concrete piles.

#### **9.1.2 Noise**

The most significant potential noise-related effects will result from pile installation activities. The proposed action will consist of the removal and installation of up to 200 piles in each year of the program. The piles being replaced include a combination of load-bearing structural piles and fender piles. Most of the piles are treated wood piles (including creosote-treated and ACZA-treated piles), but some are concrete. Both types of wood piling will be replaced with ACZA-treated wooden piling of a similar size and diameter. No creosote-treated timber piling will be installed. Concrete piling will be replaced with concrete piling of a similar size and diameter. The largest timber piling will be 18 inches in diameter. The largest concrete piling to be replaced will be 24 inches in diameter. Most of the piling to be replaced are less than 18 inches in diameter, and it is estimated that no more than 4 concrete piling with diameters 18 inches or greater will be replaced in a single year.

While most pile removal and installation will be conducted with a vibratory hammer, some piles may need to be proofed with an impact hammer, and in some cases, it may be necessary to drive a pile for some or all of its entire length with an impact hammer. The proposed action has been designed to use timber and concrete replacement piles, which produce sound pressure levels significantly less than those produced by steel pipe piles.

The following ESA-listed species and designated critical habitats have the potential to be exposed to direct effects of temporarily increased noise levels because of their potential or documented presence within the action area.

- Puget Sound ESU Chinook salmon
- Puget Sound DPS steelhead
- Puget Sound DPS bull trout
- Eastern DPS Steller sea lion
- Southern Resident DPS orca
- Humpback whale
- Marbled murrelet
- GB DPS bocaccio rockfish
- GB DPS yelloweye rockfish
- GB DPS canary rockfish

#### **9.1.2.1 Salmon, Steelhead, Bull Trout, and Rockfish**

During the in-water work period, it is possible that adult and/or juvenile Chinook salmon, steelhead, bull trout, and rockfish could be present within the action area. Juvenile rockfish are not likely present in the Sitcum, Blair, or Hylebos waterways in significant numbers at any time, but could be present within the portion of the action area that extends into Commencement Bay and the adjacent waters of Puget Sound. Adult rockfish would only be likely to be present within the deep water habitats of Commencement Bay and adjacent Puget Sound, and not within the waters of the Sitcum, Blair, and Hylebos waterways. Although run timing within the action area is different for each ESU/DPS within the action area, it is possible that these species could be present within the action area, and could be exposed to temporarily elevated underwater noise levels resulting from impact pile driving.

The proposed action has been designed to minimize the likelihood of any impacts resulting from pile installation activities. It has been designed to use small diameter timber and concrete piles, which produce significantly lower peak pressures than steel piles. As described in section 3, impact pile driving activity with concrete piles has the potential to elevate peak underwater noise levels temporarily to approximately 192 dB<sub>PEAK</sub>, which is well below the peak injury threshold of 206 dB<sub>PEAK</sub> for ESA-listed fish of any size.

It is not expected that many of the piles will need proofing. However, a worst-case estimate is that up to approximately 10% of piles may need to be proofed in any given year. This would be approximately 20 piles. It is estimated that no more than 4 piles would be proofed in a given day, and that each pile might require up to 100 strikes, representing a worst-case daily maximum of 400 pile strikes for pile proofing. This would result in the cumulative injury threshold for fish greater than 2 grams (187 dB<sub>RMS</sub>) being temporarily exceeded within a radius of almost 250 feet of pile driving activity. Similarly, the cumulative injury threshold for fish less than 2 grams (183 dB<sub>RMS</sub>) could be exceeded within approximately 446 feet of pile driving activity. However, fish within this portion of the action area would be expected to be moving rapidly through it and would not be exposed to all 400 strikes, and therefore are not expected to be adversely affected by cumulative underwater noise impacts.

#### **9.1.2.2 Orca, Humpback Whale, and Steller Sea Lion**

NMFS has established impact pile driving underwater noise injury thresholds of 180 dBRMS for cetaceans and 190 dBRMS for pinnipeds; impact pile driving disturbance thresholds of 160 dBRMS for both cetaceans and pinnipeds; and vibratory pile driving disturbance thresholds of 120 dBRMS for both cetaceans and pinnipeds.

Noise levels during impact pile installation are not expected to exceed the injury thresholds for either pinnipeds or cetaceans, but they may temporarily exceed the disturbance thresholds of 120 dBRMS (during vibratory pile installation and removal), and of 160 dBRMS (during impact pile installation) within some portions of the action area, depending upon the site at which work is being conducted.

There is little data available regarding underwater noise levels associated with vibratory removal or installation of 12- to 18-inch timber piles, or of 12-24-inch concrete piles. However, the information presented in Section 3.3.2 indicate that 160 dBRMS is a conservative estimate of the sound levels likely to be produced. Similarly, the data presented in Section 3.3.2 indicate that impact installation of concrete piles are expected to produce maximum single strike sound pressure levels of 192 dBPeak, 176 dBRMS, and 174 dBSEL.

Using the practical spreading loss model, the distance at which 160 dBRMS is expected to attenuate to 120 dBRMS is approximately 2.8 miles. The distance at which 176 dBRMS is expected to attenuate down to 160 dBRMS is approximately 382 feet. Additionally, the terrestrial disturbance thresholds for Steller sea lions (100 dBRMS) could be exceeded at distances of approximately 233 feet for impact driving, and at approximately 56 feet during vibratory driving.

Orca, humpback whale, and Steller sea lions are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time, and are therefore unlikely to be exposed to elevated underwater noise associated with any pile removal or installation conducted at Parcels 86, 99, and 105 (sites 9, 10, and 11 on Figures 1-11). Additionally, pile removal or installation conducted at the Blair dock, Parcel 116, BRAC property, or the Washington United Terminal (WUT) (sites 5, 6, 8, and 12 on Figures 1-11) is only expected to elevate sound levels within Commencement Bay within a small area, where ESA-listed marine mammals are unlikely to be present, or within such a small area that the noise would be insignificant.

The sites at which vibratory pile installation and/or removal could potentially affect orca, humpback whale, or Steller sea lions would be at the APM Terminal, Terminal 7, Olympic Container Terminal (OCT), Husky Container Terminal and Trident piers 24 and 25 (sites 1-4 and 7 on Figures 1-11). The only site at which impact pile installation could potentially affect orca, humpback whale, or Steller sea lions would be at the Trident piers 24 and 25 (site 7 on Figures 1-11).

Orca, humpback whale, and Steller sea lion are unlikely to be present within Commencement Bay between July 16 and September 30, and pile removal and installation activities conducted during this time period would not be expected to affect any marine mammals (Osborne 2008; Mongillo 2012). During any vibratory pile removal or installation conducted at the APM Terminal, Terminal 7, Olympic Container Terminal (OCT), Husky Container Terminal and Trident piers 24 and 25 (sites 1-4 and 7 on Figures 1-11), the area within the 120 dBRMS area of effect will be monitored and maintained as marine mammal buffer areas in which pile driving will not commence or will be suspended temporarily if any orca, humpback whale, or Steller sea lions are observed. In addition, during any impact pile installation conducted at Trident Piers 24 and 25, the area within the 160 dBRMS area of effect during impact driving will be monitored and maintained as a marine mammal buffer area. A detailed marine mammal monitoring plan is included as Appendix C.



Since no orca, humpback whale or Steller sea lion will be exposed to temporarily elevated noise levels, noise from the proposed action will have no effect on these species.

### **9.1.2.3 Marbled Murrelet**

The peak underwater injury threshold for marbled murrelet (180 dB<sub>PEAK</sub>) could be exceeded within approximately 207 feet, and the underwater disturbance threshold (150dB<sub>RMS</sub>) could be exceeded to a distance of 152 feet during impact pile driving. No injury or disturbance thresholds have been established for marbled murrelet associated with vibratory pile driving. The terrestrial injury threshold for marbled murrelet (92 dBA) could be exceeded at a distance of approximately 400 feet during impact pile driving.

Marbled murrelet are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time, and would not be affected by the proposed action within those waterways. The only site at which pile installation could potentially affect marbled murrelet would be at Trident piers 24 and 25 (site 7 on Figures 3, 6 and 11). Marbled murrelet are present only infrequently in Commencement Bay and would not be expected to be present within 207 feet of the proposed action, given that this area is a very busy shipping lane with continuous activity. There is documented forage fish spawning habitat located approximately 330 feet northeast of the Trident facility, and marbled murrelets may forage in that area. Murrelets foraging there would not be exposed to any underwater or terrestrial noise levels above the injury thresholds.

### **9.1.2.4 Critical Habitats**

The action area has been designated critical habitat for two ESU/DPS of salmon and bull trout, and for Southern Resident DPS orcas. Any temporarily elevated underwater noise levels associated with the proposed action will be temporary and will have no effect on any PCEs of designated or proposed critical habitat.

## **9.2 Indirect Effects**

Indirect effects are defined as those effects that are caused by or result from the proposed action which are later in time but still reasonably certain to occur. The proposed action will not result in any increase in capacity or any other indirect effects that could affect ESA-listed species.

## **9.3 Effects from Interdependent and Interrelated Actions**

Interdependent actions are defined as those actions having no independent utility apart from the proposed action (50 CFR §402-02). Interdependent actions are typically “because of” the proposed action. Interrelated actions are defined as those actions that are part of a larger action and depend on the larger action for their justification (50 CFR §402-02). Interrelated actions are typically “associated with” the proposed action. The proposed action has no interdependent or interrelated actions that could affect ESA-listed species.

## **9.4 Effects Determinations for Listed Species and Designated Critical Habitat**

Based on the description of the proposed action and the analysis provided in this document, Table 15 lists the effects determinations for ESA-listed species and species proposed for listing, while Table 16 shows the effects determinations for designated critical habitats. A summary

description of how these effects determinations were reached for each species and critical habitat follows the tables.

**Table 15. Effects Determinations Summary Table – Species**

<b>Species ESU/DPS</b>	<b>Federal Status</b>	<b>Effect Determination*</b>
<b>Chinook Salmon</b>		
Puget Sound ESU	Threatened	NLTAA
<b>Steelhead</b>		
Puget Sound DPS	Threatened	NLTAA
<b>Bull Trout</b>		
Puget Sound DPS	Threatened	NLTAA
<b>Steller Sea Lion</b>		
Eastern DPS	Threatened	NLTAA
<b>Orca</b>		
Southern Resident DPS	Threatened	NLTAA
<b>Humpback Whale</b>		
Eastern North Pacific Stock	Endangered	NLTAA
<b>Marbled Murrelet</b>		
N/A (no ESU/DPS designation)	Threatened	NLTAA
<b>Rockfish</b>		
Boccaccio	Endangered	NLTAA
Yelloweye Rockfish	Endangered	NLTAA
Canary Rockfish	Endangered	NLTAA
<b>Pacific Eulachon</b>		
Southern DPS	Threatened	NE

\*LTAA = Likely to Adversely Affect; NLTAA = Not Likely to Adversely Affect; NE = No Effect

**Table 16. Effects Determinations Summary Table – Critical Habitats**

Species ESU/DPS	Critical Habitat Status	Effect Determination*
<b>Chinook Salmon</b>		
Puget Sound ESU	Designated	NLTAA
<b>Steelhead</b>		
Puget Sound DPS	Not designated or proposed	N/A
<b>Bull Trout</b>		
Puget Sound DPS	Designated	NLTAA
<b>Steller Sea Lion</b>		
Eastern DPS	Designated	NE
<b>Orca</b>		
Southern Resident DPS	Designated	NLTAA
<b>Humpback Whale</b>		
Eastern North Pacific Stock	Not designated or proposed	N/A
<b>Marbled Murrelet</b>		
N/A (no ESU/DPS designation)	Designated	NE
<b>Rockfish</b>		
Boccaccio	Not designated or proposed	N/A
Yelloweye Rockfish	Not designated or proposed	N/A
Canary Rockfish	Not designated or proposed	N/A

\*LTAA = Likely to Adversely Affect; NLTAA = Not Likely to Adversely Affect; NE = No Effect; NA = Not Applicable

**9.4.1 Species**

**9.4.1.1 Puget Sound ESU Chinook salmon, Puget Sound DPS steelhead, and Puget Sound DBS bull trout**

The proposed action “**may affect, but is not likely to adversely affect**” the PS ESU of Chinook salmon. A “**may affect**” determination is warranted based on the following.

- The project will require work below the OHWM of portions of inner Commencement Bay and the Sitcum, Blair, and Hylebos waterways that represent migratory habitat for adult and juvenile Puget Sound ESU Chinook salmon, Puget Sound DPS steelhead, and Puget Sound DPS bull trout.
- The proposed action will conduct work during the in-water work period, when Chinook salmon, steelhead, and/or bull trout could be migrating in Commencement Bay and could enter the action area.
- The project has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during pile removal and installation.

A “**not likely to adversely affect**” determination is based on the following.

- Salmonid habitat within the portions of the action area that are within and immediately adjacent to the pile replacement locations is limited to low- to moderate-quality migration

habitat. No freshwater rearing or spawning habitat occurs within this portion of the action area. Even under normal, non-project conditions, migrating adult and juvenile salmonids likely move through this portion of the action area rapidly.

- Conservation measures described in section 3.2, including work within the in-water work window and the use of only treated timber and concrete piles, will be sufficient to ensure that any temporary noise-related impacts will not result in any adverse effects to any Chinook salmon, steelhead, or bull trout.
- Peak underwater noise levels will not rise to levels where injury would be expected and the extent of potential impacts will be limited to temporary avoidance of the action area.
- Cumulative underwater noise impacts are not expected to rise to the level of take, as there is little habitat within the portion of the action area where cumulative noise levels could exceed injury thresholds, and fish would be expected to move quickly through these areas and not be exposed to the entire extent of cumulative impacts.

#### **9.4.1.2 Eastern DPS Steller sea lion**

The proposed action “**may affect, but is not likely to adversely affect**” Eastern DPS Steller sea lion. A “**may effect**” determination is warranted based on the following.

- The project will require work below the OHWM of a portion of inner Commencement Bay which represents potentially suitable foraging habitat for Steller sea lion.
- The proposed action will conduct work during the in-water work period, when Steller sea lion could potentially be present within Commencement Bay, and could potentially enter the action area.
- The project has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during the proposed action.

A “**not likely to adversely affect**” determination is based on the following.

- Steller sea lion are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time of year, and would not be affected by activities conducted within those waterways
- Steller sea lions are present only infrequently in Commencement Bay and the adjacent waters of Puget Sound. There are no documented Steller sea lion haulouts within the action area, and the action area does not represent a significant migratory corridor.
- During pile removal or installation conducted between October 1 and February 14, a marine mammal monitoring plan will be implemented to avoid impacts to ESA-listed marine mammals. The areas in which monitoring is proposed is site-dependent, and is also dependent on the type of activity being conducted (vibratory removal or installation or impact installation). Some sites will not require monitoring. This will avoid the potential for

any Steller sea lions to be exposed to noise levels above injury or disturbance thresholds. A detailed marine mammal monitoring plan is included as Appendix C.

- Conservation measures described in Section 3.2, including work within the in-water work window, the use of only treated timber and concrete piles, and implementation of the marine mammal monitoring plan included as Appendix C of this document will be sufficient to ensure that any temporary noise-related impacts will not result in any adverse effects to any Steller sea lions

#### **9.4.1.3 Southern Resident DPS orca**

The proposed action “**may affect, but is not likely to adversely affect**” Southern Resident DPS orcas. A “**may effect**” determination is warranted based on the following.

- The project will require work below the OHWM of a portion of inner Commencement Bay which represents potentially suitable habitat for orca.
- The proposed action will conduct work during the in-water work period, when orca could potentially be present within Commencement Bay, and could potentially enter the action area.
- The project has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during pile removal and installation.

A “**not likely to adversely affect**” determination is based on the following.

- Orca are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time of year, and would not be affected by activities conducted within those waterways.
- Orca are present only infrequently in Commencement Bay, and are only very rarely present in the months of July–September.
- During pile removal or installation conducted between October 1 and February 14, a marine mammal monitoring plan will be implemented to avoid impacts to ESA-listed marine mammals. The areas in which monitoring is proposed is site-dependent, and is also dependent on the type of activity being conducted (vibratory removal or installation or impact installation). Some sites will not require monitoring. This will avoid the potential for any orca to be exposed to noise levels above injury or disturbance thresholds. A detailed marine mammal monitoring plan is included as Appendix C.
- Conservation measures described in Section 3.2, including work within the in-water work window, the use of only treated timber and concrete piles, and implementation of the marine mammal monitoring plan included as Appendix C of this document will be sufficient to ensure that any temporary noise-related impacts will not result in any adverse effects to any orca.

#### **9.4.1.4 Humpback Whale (Eastern North Pacific Stock)**

The proposed action will have “**may affect, but is not likely to adversely affect**” humpback whale. A “**may effect**” determination is warranted based on the following:

- The project will require work below the OHWM of a portion of Commencement Bay which represents potential foraging habitat for humpback whale.
- The proposed action will conduct work below the OHWM of Commencement Bay during the in-water work period, when humpback whale could potentially be present in Commencement Bay or adjacent waters of Puget Sound, and could potentially enter the action area.
- The project has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during pile removal and installation.

A “**not likely to adversely affect**” determination is based on the following:

- Humpback whale are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time of year, and would not be affected by activities conducted within those waterways.
- Humpback whales are present only infrequently in waters of Puget Sound, and are not expected to occur in Commencement Bay
- During pile removal or installation conducted between October 1 and February 14, a marine mammal monitoring plan will be implemented to avoid impacts to ESA-listed marine mammals. The areas in which monitoring is proposed is site-dependent, and is also dependent on the type of activity being conducted (vibratory removal or installation or impact installation). Some sites will not require monitoring. This will avoid the potential for any humpback whale to be exposed to noise levels above injury or disturbance thresholds. A detailed marine mammal monitoring plan is included as Appendix C.
- Conservation measures described in Section 3.2, including work within the in-water work window, the use of only treated timber and concrete piles, and implementation of the marine mammal monitoring plan included as Appendix C of this document will be sufficient to ensure that any temporary noise-related impacts will not result in any adverse effects to any humpback whales.

#### **9.4.1.5 Marbled murrelet**

The proposed action “**may affect, but is not likely to adversely affect**” marbled murrelet. A “**may effect**” determination is warranted based on the following.

- The project will require work below the OHWM of portions of inner Commencement Bay that represent potentially suitable habitat for marbled murrelet.

- The proposed action will conduct work during the in-water work period, when marbled murrelet could potentially be present within Commencement Bay, and could potentially enter the action area.
- The proposed action has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during pile removal and installation.

A “**not likely to adversely affect**” determination is based on the following.

- Marbled murrelet are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time of year, and would not be affected by activities conducted within those waterways.
- Marbled murrelet are present only infrequently in Commencement Bay, and are not frequently observed in close proximity to the busy industrial areas where pile removal and installation would be occurring.
- Marbled murrelet are not expected to be present within the areas in which underwater or terrestrial noise levels could exceed injury thresholds and would not be exposed to injury.
- Marbled murrelets could be exposed to underwater or terrestrial noise levels that could lead to temporary disturbance, but this would not be expected to rise to the level of take.
- Conservation measures described in Section 3.2, including work within the in-water work window and the use of only treated timber and concrete piles, will be sufficient to ensure that any temporary noise-related impacts will not result in any adverse effects to any marbled murrelet.

#### **9.4.1.6 GB DPS Boccaccio, GB DPS yelloweye rockfish, and GB DPS Canary rockfish**

The proposed action “**may affect but is not likely to adversely affect**” GB DPS boccaccio, GB DPS yelloweye rockfish, and GB DPS canary rockfish. A “**may affect**” determination is warranted based on the following:

- The project will require work below the OHWM of portions of inner Commencement Bay and the Sitcum, Blair, and Hylebos waterways which represent potentially suitable habitat for larval or juvenile boccaccio, yelloweye rockfish, and canary rockfish.
- The proposed action has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during pile removal and installation.

A “**not likely to adversely affect**” determination is based on the following:

- The proposed action will conduct all in-water work during the in-water work period.

- Habitat suitability for bocaccio, yelloweye rockfish, and canary rockfish within the portions of the action area that are immediately adjacent to the pile replacement locations is very low.
- Bocaccio, yelloweye rockfish, and canary rockfish habitat within the Sitcum, Blair and Hylebos waterways within the action area is limited to low- to moderate-quality habitat for larval and juvenile rockfish. No freshwater rearing or spawning habitat occurs within this portion of the action area, and there is no habitat for adult rockfish within this portion of the action area.
- Conservation measures described in Section 3.2, including work within the in-water work window and the use of only treated timber and concrete piles will be sufficient to ensure that any temporary noise-related impacts will not result in any adverse effects to any bocaccio, yelloweye rockfish, and canary rockfish.
- Peak underwater noise levels will not rise to levels where injury would be expected and the extent of potential impacts will be limited to temporary avoidance of the action area.
- Cumulative underwater noise impacts are not expected to rise to the level of take, as there is little habitat within the portion of the action area where cumulative noise levels could exceed injury thresholds, and fish would be expected to move quickly through these areas and not be exposed to the entire extent of cumulative impacts.

#### **9.4.1.7 Southern DPS Pacific Eulachon**

The proposed action will have “**no effect**” on Southern DPS Pacific eulachon. This determination is based on the following:

- It is unlikely that any eulachon life stages would be present in the action area. There are no documented eulachon spawning sites within the Sitcum, Blair, or Hylebos waterways, or within Commencement Bay. The closest documented eulachon spawning site or migration corridor is the Elwha River on the Olympic Peninsula.

#### **9.4.2 Critical Habitats**

##### **9.4.2.1 Designated salmon and bull trout critical habitat**

The waterways within the action area have been designated critical habitat for Puget Sound ESU Chinook salmon and Puget Sound DPS bull trout. The effects determination is that the proposed project “**may affect, but is not likely to adversely affect**” these designated critical habitats. A “**may affect**” determination is warranted based on the following rationale.

- The proposed action will require work below the OHWM of portions of inner Commencement Bay and the Sitcum, Blair, and Hylebos waterways that have been designated critical habitat for the ESU/DPS of salmon and bull trout listed above.
- The action area provides for adequate estuarine, marine nearshore, and offshore marine PCEs of critical habitat for the Puget Sound ESU Chinook salmon; and adequate migratory, food base, marine shoreline, water temperature, hydrologic, water quantity and quality, and competitive species PCEs of critical habitat for Puget Sound DPS bull trout.



- The project has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during the proposed action.
- The proposed action will result in temporarily elevated underwater noise levels during impact pile removal and installation.

A “**not likely to adversely affect**” determination is warranted based on the following rationale.

- Water quality and noise impacts that may result during construction will be temporary and will result in no significant effects to any elements that would degrade any PCEs of critical habitat for either of the ESU/DPS of salmon and bull trout listed above.
- Given the condition and degree of use of the habitat, the temporary water quality impacts and temporary noise impacts will not result in any measurable effect on any PCE of critical habitat for either of the ESU/DPS of salmon and bull trout listed above.

#### **9.4.2.2 Designated Eastern DPS Steller sea lion critical habitat**

Critical habitat has been designated for Steller sea lion, but none occurs within the action area. The effects determination is that the proposed project will have “**no effect**” on designated critical habitat for Eastern DPS Steller sea lion.

#### **9.4.2.3 Designated Southern Resident DPS orca critical habitat**

The waterways within the action area have been designated critical habitat for Southern Resident DPS orca. The effects determination is that the proposed project “**may affect, but is not likely to adversely affect**” this designated critical habitat. A “**may affect**” determination is warranted based on the following rationale.

- The proposed action will require work below the OHWM of portions of inner Commencement Bay that have been designated critical habitat for Southern DPS orca.
- The action area provides for adequate migratory and water quality, prey, and passage PCEs of critical habitat for orca.
- The proposed action has the potential to result in temporarily impaired water quality within the action area, including temporarily elevated turbidity levels during pile removal and installation.
- The proposed action will result in temporarily elevated underwater noise levels during impact pile removal and installation.

A “**not likely to adversely affect**” determination is warranted based on the following rationale.

- Water quality and noise impacts that may result during construction will be temporary and will result in no measurable or significant effects to any elements that would degrade the water quality, prey, or passage PCEs of critical habitat for orca.

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# **APPENDIX A**

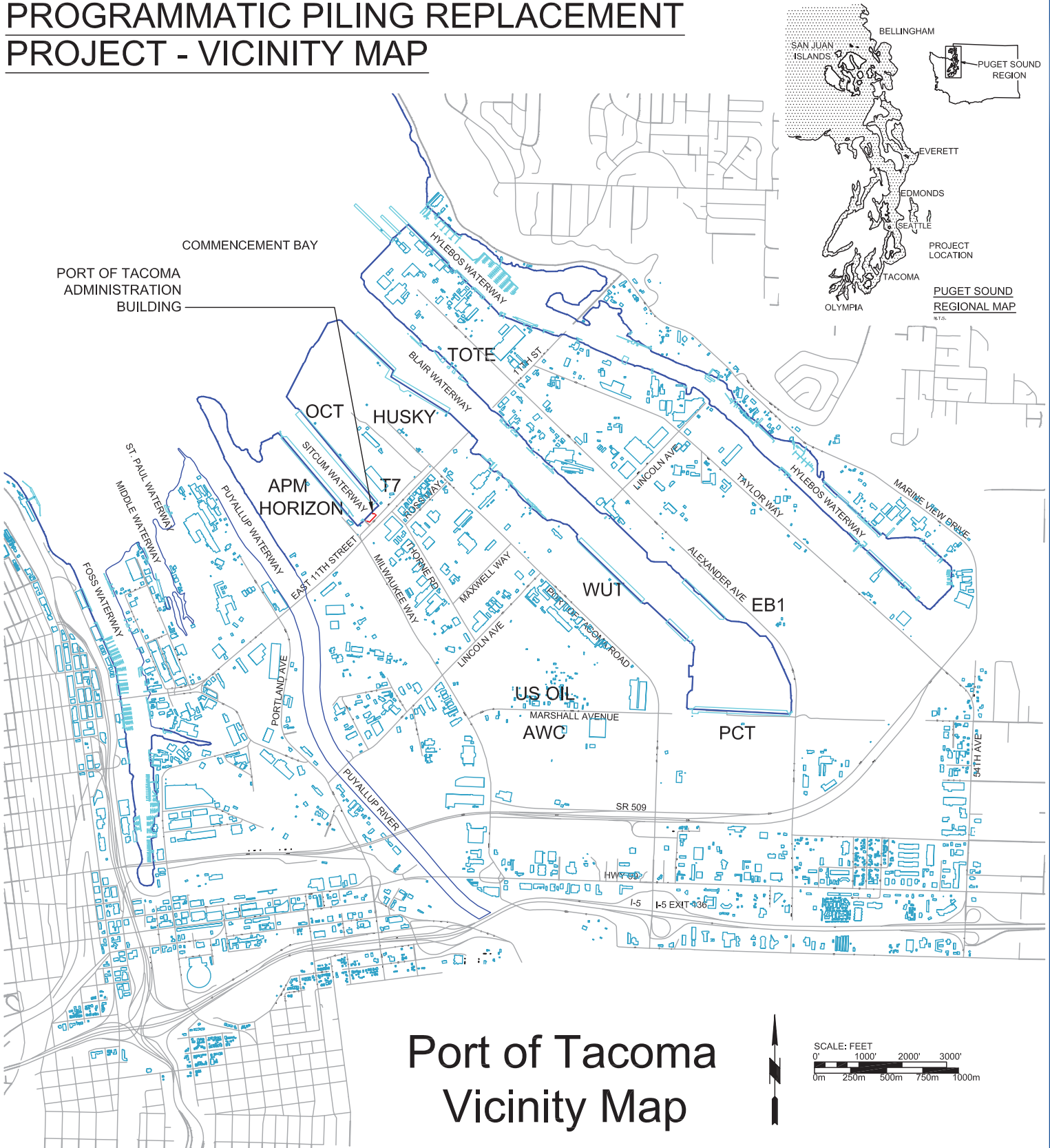
## **Figures**

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# PROGRAMMATIC PILING REPLACEMENT PROJECT - VICINITY MAP



## Port of Tacoma Vicinity Map



SCALE: FEET  
0' 1000' 2000' 3000'  
0m 250m 500m 750m 1000m

DATE OF PRINT: Oct 07, 2011 1:02:06pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\1110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - VMap.dwg

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**

P.O. BOX 1837 TACOMA, WA 98401  
(253)383-5841

**FIGURE**

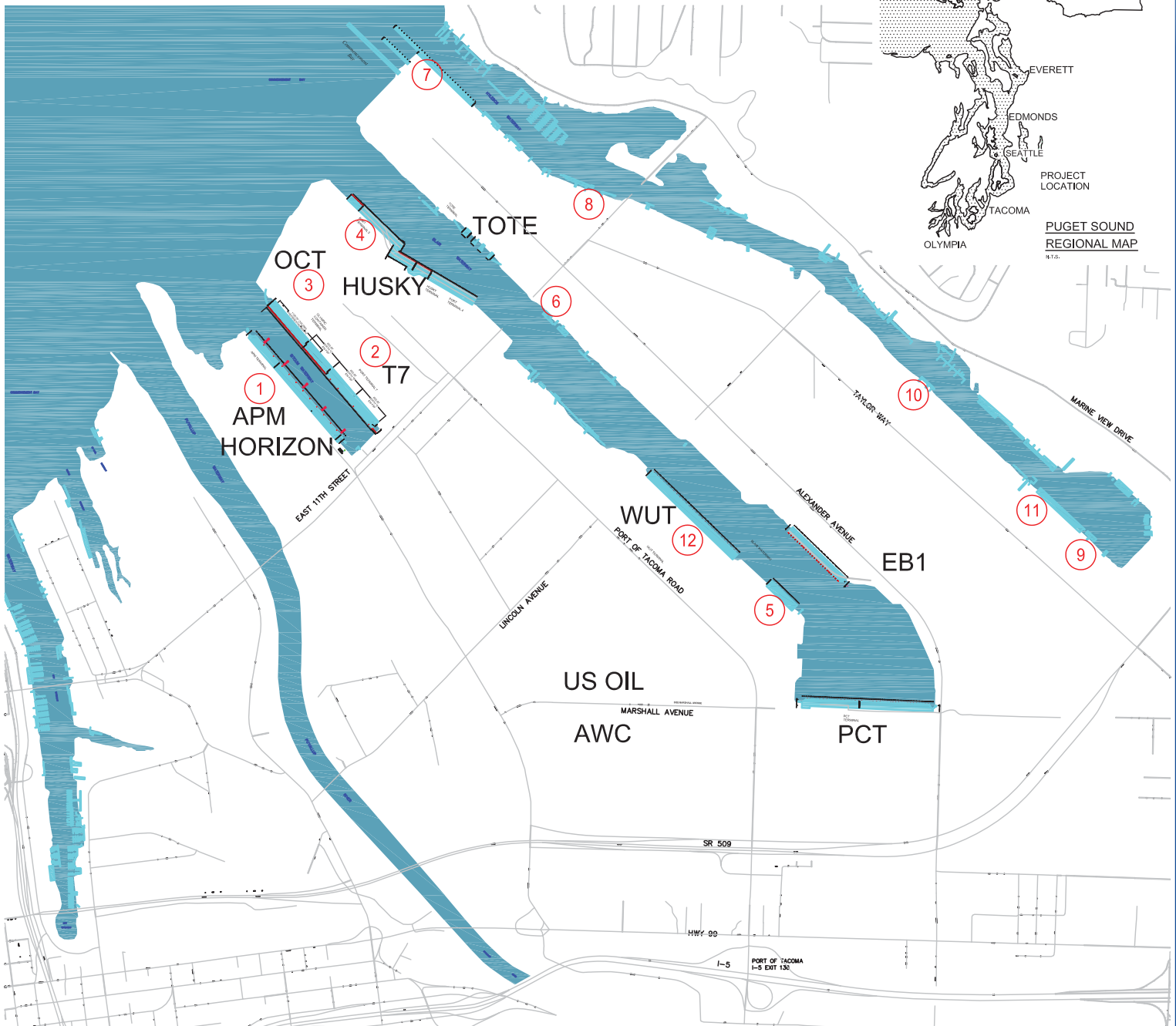
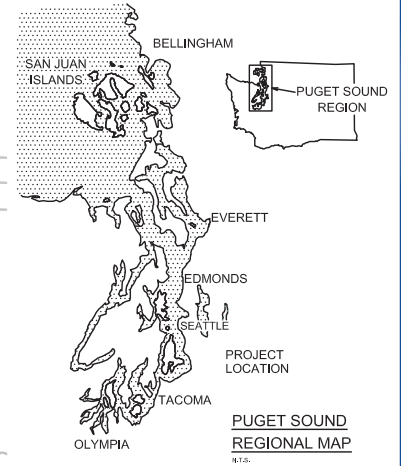
**01**

STATE: WA  
COUNTY: PIERCE  
CITY/PORT: PORT OF TACOMA  
LOCATION: PORT OF TACOMA  
PURPOSE: PILING REPLACEMENT PROJECT

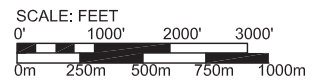
PROJECT NO: N/A  
SHEET: 1 OF 10  
DATE: 10/07/2011



# PROGRAMMATIC PILING REPLACEMENT PROJECT - SITE PLAN



## Port of Tacoma Vicinity Map



DATE OF PRINT: Oct 07, 2011 2:21:10pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

- |                  |                 |               |
|------------------|-----------------|---------------|
| 1 APM TERMINALS  | 5 BLAIR DOCK    | 9 PARCEL 86   |
| 2 TERMINAL 7     | 6 PARCEL 115    | 10 PARCEL 99  |
| 3 OCT            | 7 TRIDENT       | 11 PARCEL 105 |
| 4 HUSKY TERMINAL | 8 BRAC PROPERTY | 12 WUT        |

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**

P.O. BOX 1837 TACOMA, WA 98401  
(253)383-5841

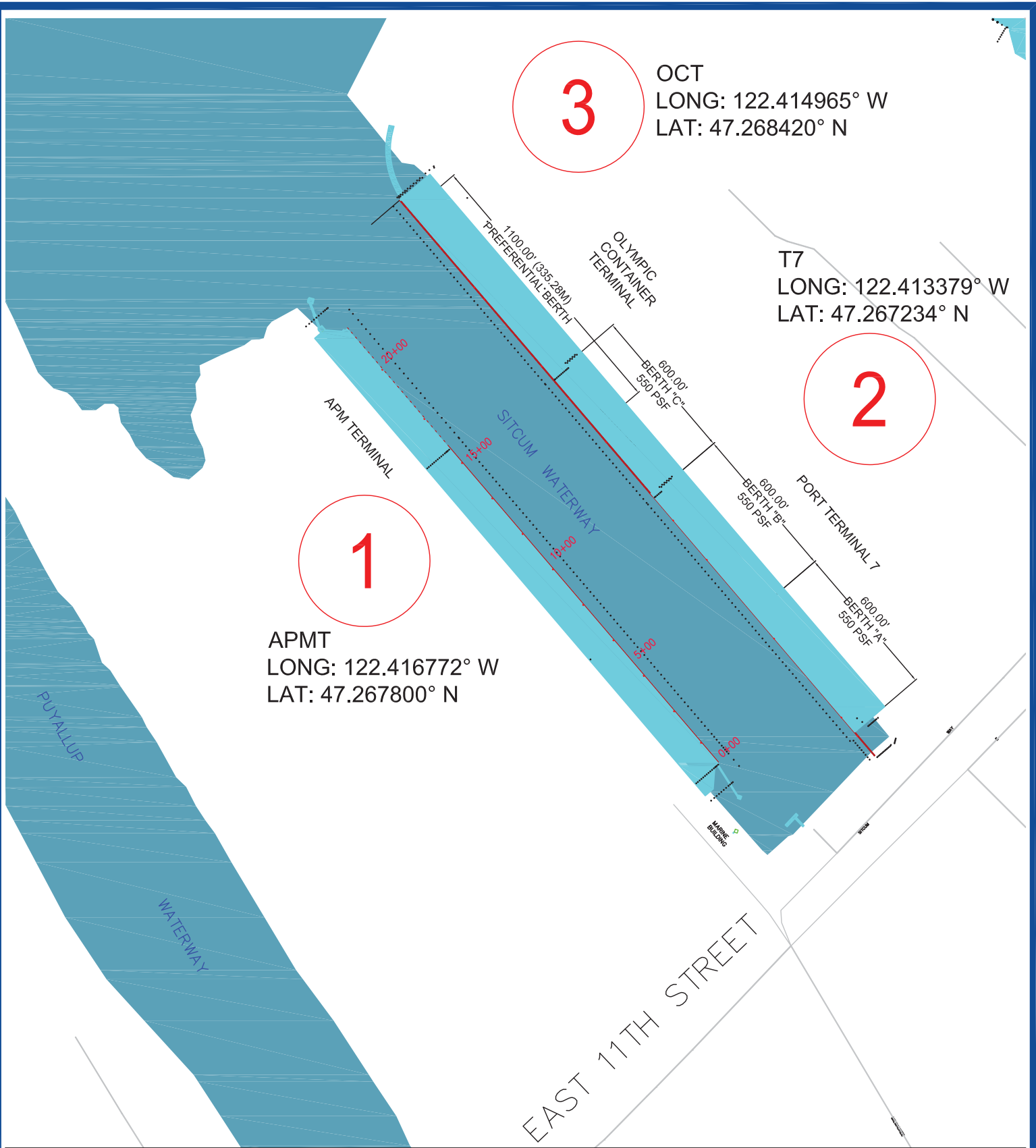
### FIGURE

02

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 2 OF 10  
 DATE: 10/07/2011





DATE OF PRINT: Oct 07, 2011 2:22:00pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

- ① APM TERMINAL
- ② T7 TERMINAL
- ③ OCT TERMINAL

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

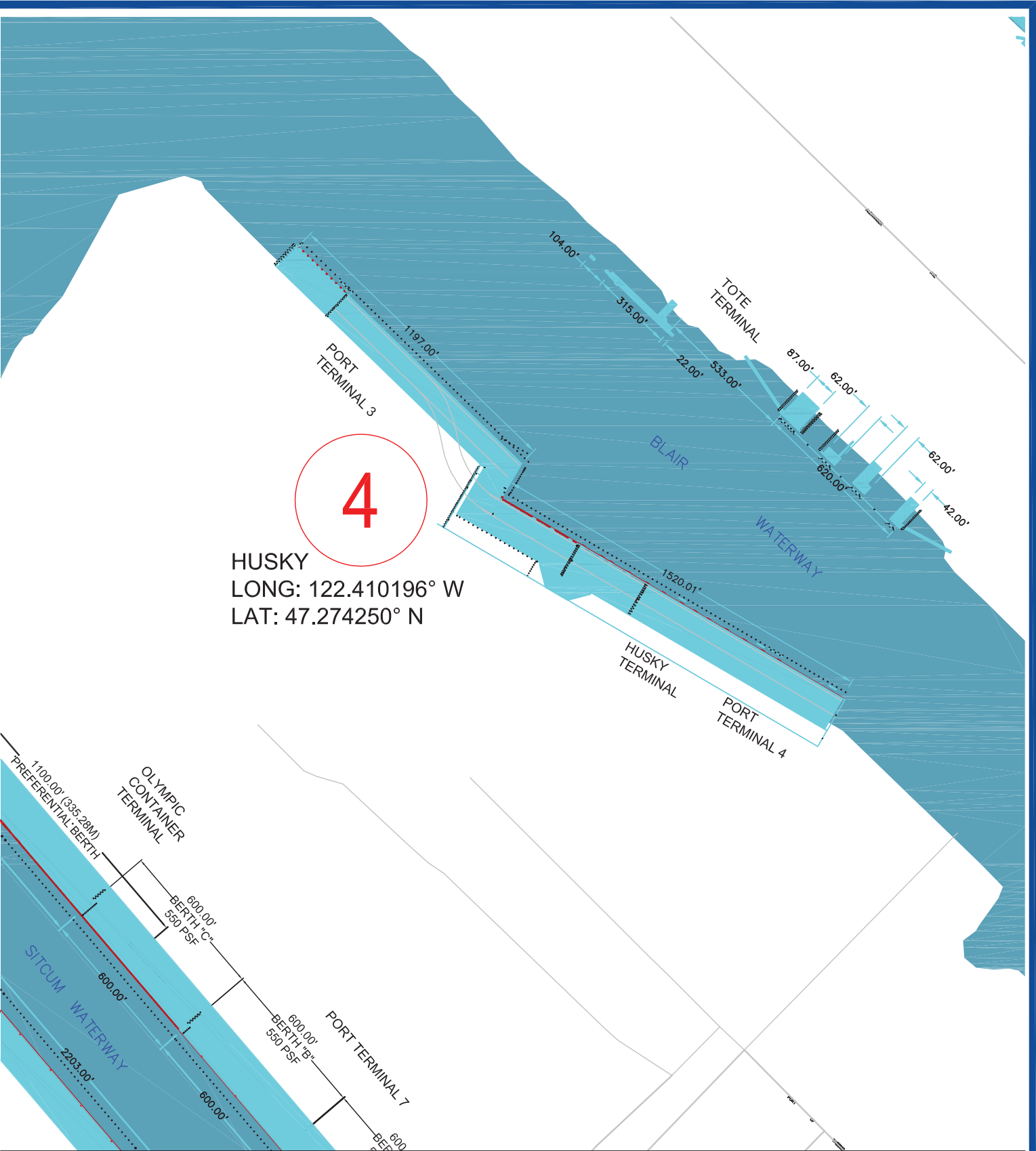
**FIGURE**

**03**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 3 OF 10  
 DATE: 10/07/2011





**4**  
 HUSKY  
 LONG: 122.410196° W  
 LAT: 47.274250° N

DATE OF PRINT: Oct 07, 2011 3:03:57pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

**4 HUSKY TERMINAL**

Reference: NWS-2011-0089-WRD

**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

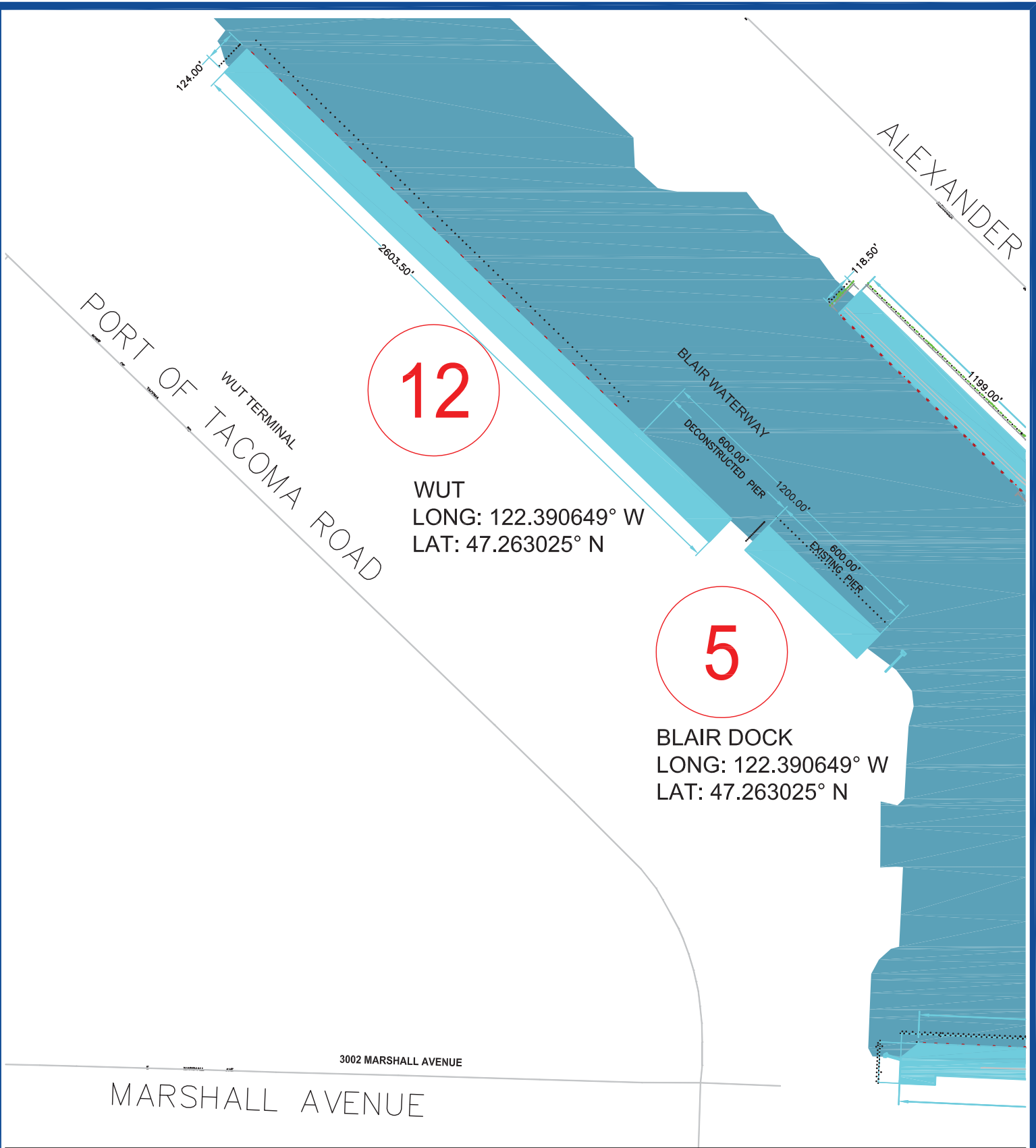
**FIGURE 04**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 4 OF 10  
 DATE: 10/07/2011







12

WUT  
 LONG: 122.390649° W  
 LAT: 47.263025° N

5

BLAIR DOCK  
 LONG: 122.390649° W  
 LAT: 47.263025° N

DATE OF PRINT: Oct 07, 2011 4:09:32pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

12 WUT  
 5 BLAIR DOCK

Reference: NWS-2011-0089-WRD

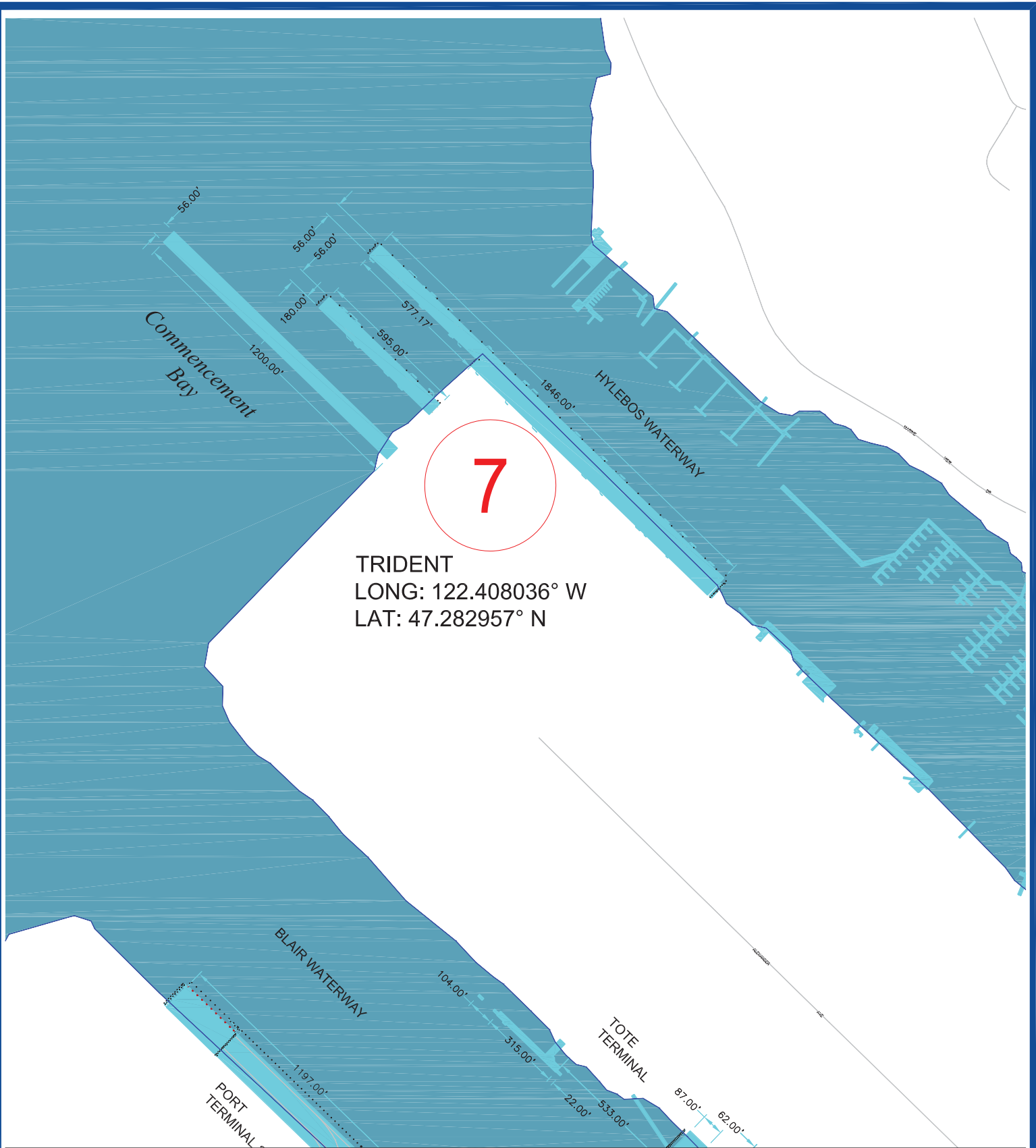
**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

**FIGURE** 05

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 5 OF 10  
 DATE: 10/07/2011





7

TRIDENT  
 LONG: 122.408036° W  
 LAT: 47.282957° N

DATE OF PRINT: Nov 22, 2011 7:48:35am - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

7 TRIDENT

Reference: NWS-2011-0089-WRD



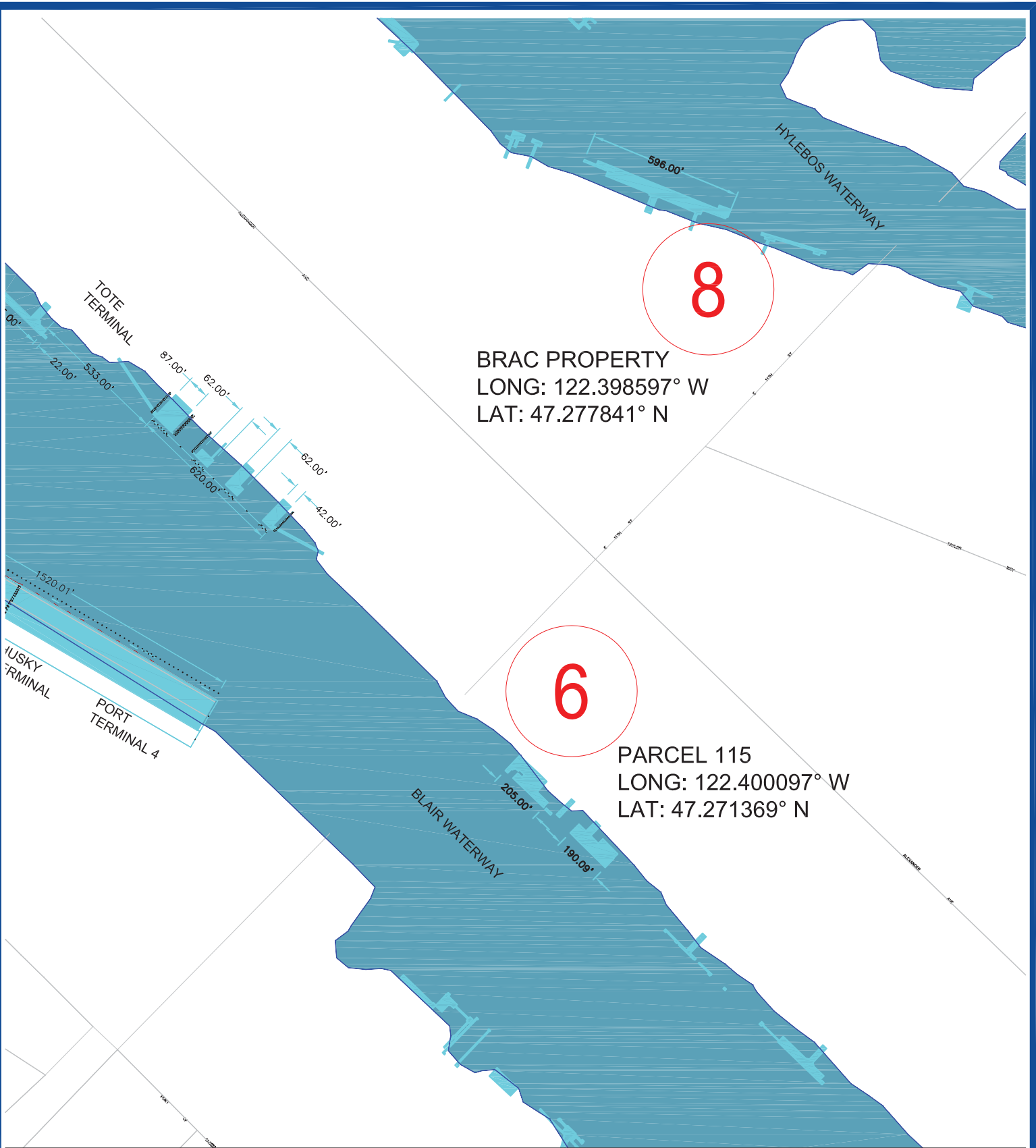
PORT OF TACOMA  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

FIGURE 06

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 6 OF 10  
 DATE: 10/07/2011





DATE OF PRINT: Nov 22, 2011 7:49:02am - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

8 BRAC PROPERTY  
 6 PARCEL 115

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

**FIGURE**

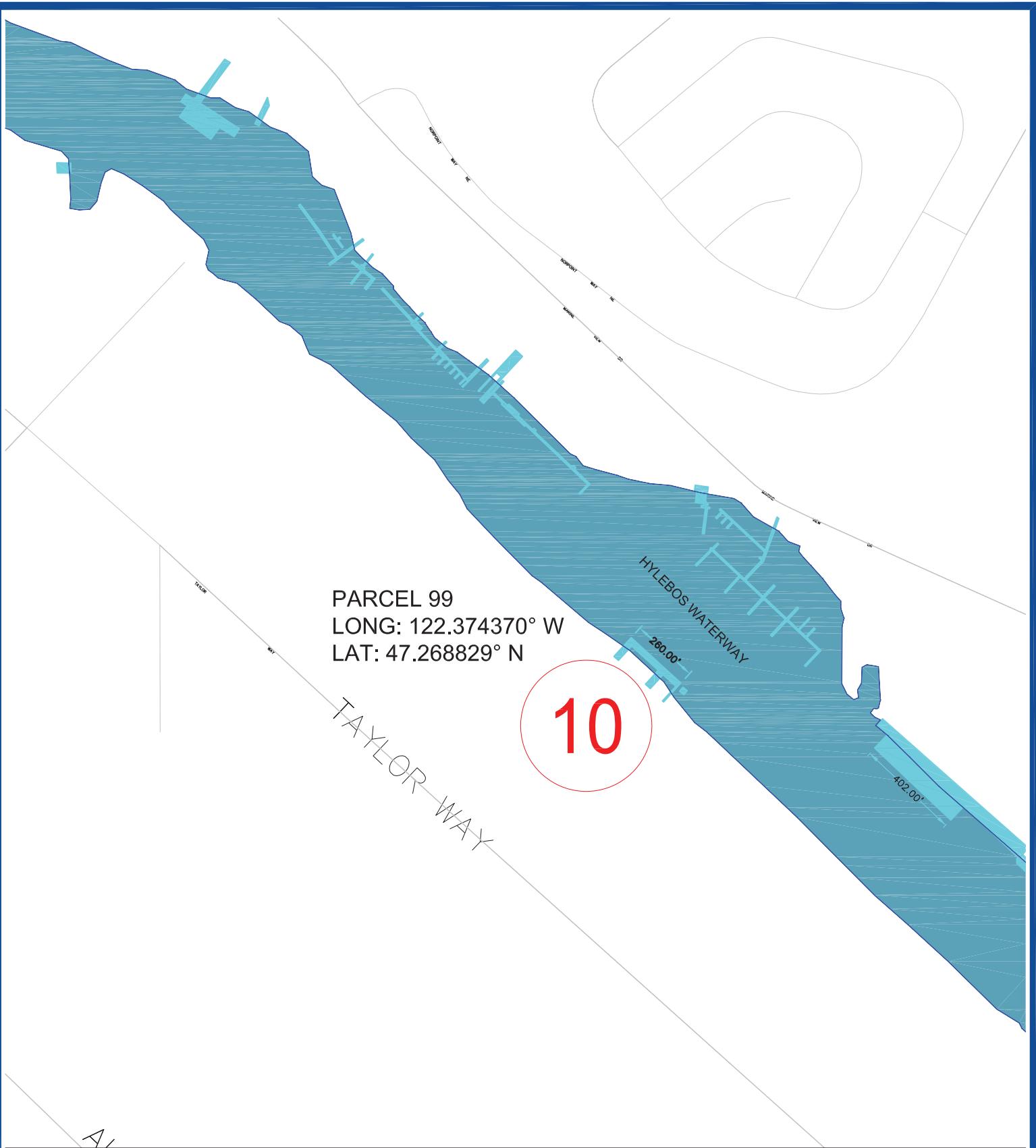
**07**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 7 OF 10

DATE: 10/07/2011





DATE OF PRINT: Nov 22, 2011 7:49:30am - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

10 PARCEL 99

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**

P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

**FIGURE**

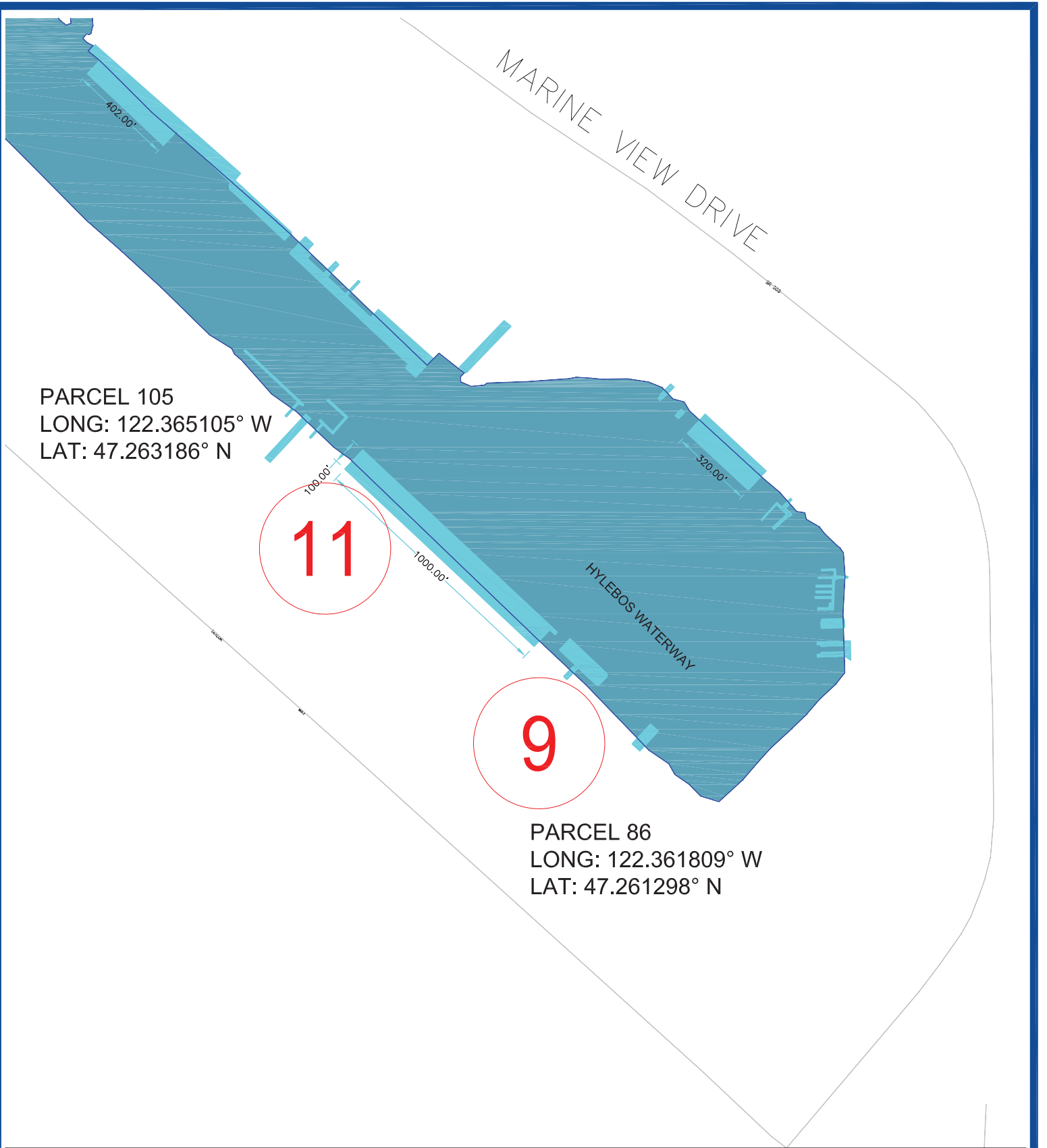
**08**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROGRAM

PROJECT NO: N/A  
 SHEET: 8 OF 10 DATE: 10/07/2011







PARCEL 105  
 LONG: 122.365105° W  
 LAT: 47.263186° N

11

9

PARCEL 86  
 LONG: 122.361809° W  
 LAT: 47.261298° N

DATE OF PRINT: Nov 22, 2011 7:50:00am - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Location Maps.dwg

11 PARCEL 105  
9 PARCEL 86

Reference: NWS-2011-0089-WRD

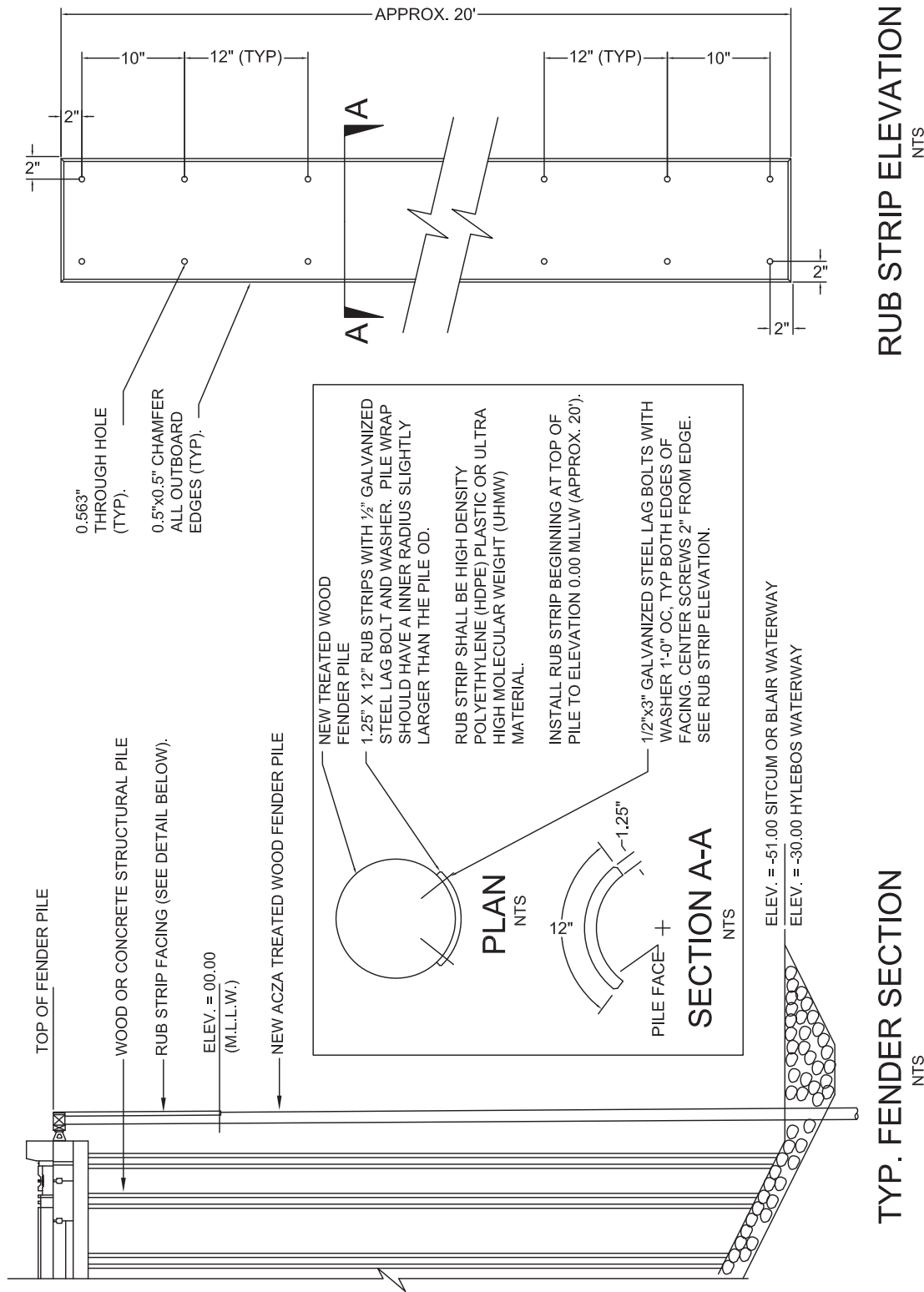
**PORT OF TACOMA**  
 P.O. BOX 1837 TACOMA, WA 98401  
 (253)383-5841

**FIGURE** 09

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROGRAM

PROJECT NO: N/A  
 SHEET: 9 OF 10 DATE: 10/07/2011





DATE OF PRINT: Oct 07, 2011 2:26:03pm - BY: barcher - FILE LOCATION: L:\PTac Projects\11 General Projects\1110105\_0005 - Programmatic Piling Replacement Project\CAD\PTac Programmatic Piling Rep Proj - Typical Section.dwg

Reference: NWS-2011-0089-WRD



**PORT OF TACOMA**

P.O. BOX 1837 TACOMA, WA 98401  
(253)383-5841

**FIGURE**

**10**

STATE: WA  
 COUNTY: PIERCE  
 CITY/PORT: PORT OF TACOMA  
 LOCATION: PORT OF TACOMA  
 PURPOSE: PILING REPLACEMENT PROJECT

PROJECT NO: N/A  
 SHEET: 10 OF 10

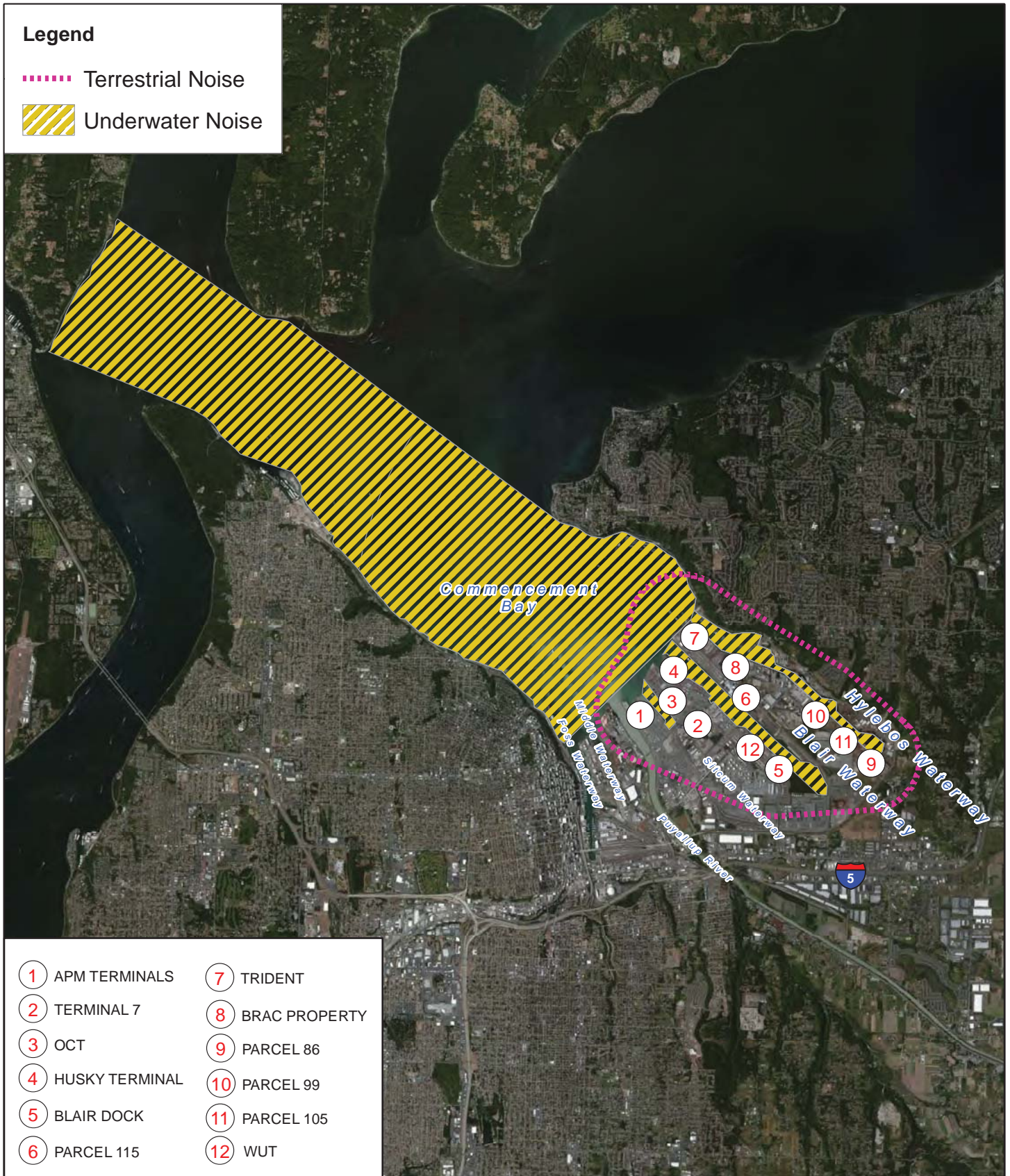
DATE: 10/07/2011



**Legend**

..... Terrestrial Noise

▨ Underwater Noise



- |                  |                 |
|------------------|-----------------|
| ① APM TERMINALS  | ⑦ TRIDENT       |
| ② TERMINAL 7     | ⑧ BRAC PROPERTY |
| ③ OCT            | ⑨ PARCEL 86     |
| ④ HUSKY TERMINAL | ⑩ PARCEL 99     |
| ⑤ BLAIR DOCK     | ⑪ PARCEL 105    |
| ⑥ PARCEL 115     | ⑫ WUT           |



**Figure 11 - Action Area**

Reference: NWS-2011-0089-WRD

**Port of Tacoma - Programmatic Pile Replacement BE**  
 P.O. Box 1837  
 Tacoma, WA 98401

Source: Pierce County GIS (2011)





**APPENDIX B**  
**Compliance Form**

---





# Appendix B – Compliance Form

## PORT OF TACOMA PILING REPLACEMENT PROGRAM

**Corps Reference #:** NWS-2011-89-WRD

**NMFS Reference #:**

**FWS Reference #:**

**Reporting Period:**

**Date of Report:**

**Report Preparer:**

By March 15<sup>th</sup> 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			
<b>Totals</b>			

\* 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



**APPENDIX C**  
**Marine Mammal Monitoring Plan**

---



**PORT OF TACOMA  
MARINE MAMMAL MONITORING PLAN  
FOR PROGRAMMATIC PILE REPLACEMENT ACTIVITIES**

## INTRODUCTION

The Port of Tacoma (Port) proposes to conduct pile replacement activities (the proposed action) at 12 wharf/dock structures located in the Sitcum, Blair, and Hylebos waterways and in inner Commencement Bay in Tacoma, Washington (Figure 1).

Figure 1 is an aerial photograph of the project vicinity and displays the action area for the proposed action, which has been established based on the extent of the zones of influence from the following components of the project (Temporary Effects Areas):

- Project Footprint (In-Water)
- Terrestrial Noise
- Underwater noise during impact pile installation (Impact Temporary Effect Area)
- Underwater noise during vibratory pile removal and installation (Vibratory Temporary Effect Area)

Noise levels during both impact pile installation and vibratory pile removal and/or installation could exceed the noise thresholds National Marine Fisheries Service (NMFS) has established for underwater disturbance of marine mammals within portions of the action area at each of the 12 sites. The Programmatic Biological Evaluation (PBE) prepared for this project states that a marine mammal monitoring plan will be implemented during pile removal or installation conducted between October 1 and February 14, to avoid impacts to orca (*Orcinus orca*), humpback whale (*Megaptera novaeangliae*), or Steller sea lions (*Eumatopius jubatus*). The areas in which monitoring is proposed in this plan is dependent upon the location and type of activity being conducted (vibratory removal and/or installation or impact installation). Some sites will not require monitoring.

## DISCUSSION

### **In-Water Vibratory Pile Removal and Installation**

The National Marine Fisheries Service (NMFS) has established an underwater noise disturbance threshold of 120 dB<sub>RMS</sub> for non-impulse, continuous industrial noises for cetaceans and pinnipeds.<sup>1</sup> Noise levels during vibratory pile removal and installation would exceed this

---

<sup>1</sup> RMS=root mean square

threshold within a portion of the action area (Vibratory Temporary Effect Area) at each of the 12 sites.

The proposed action will consist of the removal and installation of up to 200 piles in each year of the program (July 16, 2012 to February 14, 2017). The proposed action will replace a combination of load-bearing structural piles and fender piles. Most of the piles are treated wood piles (including creosote-treated and ACZA-treated piles), but some are concrete. The proposed action will not install creosote-treated timber piling. ACZA-treated wood piling of a similar size and diameter will replace both creosote-treated and ACZA-treated wood piling. The largest timber piling to be replaced is 18 inches in diameter. Concrete piling of a similar size and diameter will replace concrete piling. The largest concrete piling that will be replaced is 24 inches in diameter. Most of the piling to be replaced is less than 18 inches in diameter. The proposed action will replace no more than an estimated 4 concrete piling with diameters 18 inches or greater in a single year.

There is little data available regarding underwater noise levels associated with vibratory removal or installation of 12- to 18-inch timber piles, or of 12-24-inch concrete piles. A review of existing literature including CALTRANS' Compendium of Pile Driving Data (Reyff 2007), and project specific data published by WSDOT (Laughlin 2007, 2011) indicate that 160 dB<sub>RMS</sub> is an appropriate worst case estimate of the maximum sound levels likely to be produced during vibratory removal or installation of timber or concrete piles, for the following reasons.

- In 2010 WSDOT collected hydroacoustic data during vibratory pile removal at its Port Townsend Ferry Terminal (Laughlin 2011). The results of this monitoring indicated that average dB<sub>RMS</sub> values during vibratory pile removal ranged between 149 and 152, with an overall average of 152 dB<sub>RMS</sub>.
- WSDOT reports that, on average, vibratory noise levels are between 10 and 20 dB lower than those produced by impact pile driving (WSDOT 2011). Underwater noise from impact installation of 12-18" timber piles typically produces maximum underwater noise levels of 170 dB<sub>RMS</sub>. Impact installation of concrete piles have been shown to produce a range of underwater sound levels (see below), but for purposes of this consultation have been assumed to not exceed 176 dB<sub>RMS</sub>. If a 10-16 dB reduction is assumed, on average, the underwater noise would be expected to not exceed 160 dB<sub>RMS</sub> during vibratory removal or installation of timber or concrete piles.
- Concrete and timber piles produce much lower underwater sound pressures than similarly sized steel piles (Reyff 2007). CALTRANS' Compendium of Pile Driving Data (Reyff 2007), provides information regarding vibratory installation of: 12-inch steel pipe

piles (150 dB<sub>RMS</sub>), 12-inch steel pipe piles (155 dB<sub>RMS</sub>), 24-inch AZ steel sheet pile (160 dB<sub>RMS</sub>), and 36-inch steel pipe piles (170 dB<sub>RMS</sub>). Given these sound pressure levels, it is safe to assume that the sound pressure levels associated with vibratory removal and/or installation of 12-18" timber piles or 12-24-inch concrete piles would not exceed 160 dB<sub>RMS</sub> on average.

The following assumptions underlay the vibratory pile removal and installation noise attenuation analysis:

- Background in-water noise levels in the action area are not available, so the analysis used a marine mammal vibratory guideline threshold of 120 dB<sub>RMS</sub>.
- A worst-case estimate of noise level from vibratory removal and installation of concrete and timber piles is 160 dB<sub>RMS</sub>.
- Noise will attenuate at a rate of 4.5 dB per doubling distance.
- Sound will stop when it reaches the nearest land mass.

The distance at which 160 dB<sub>RMS</sub> is expected to attenuate to 120 dB<sub>RMS</sub> using the practical spreading loss model is approximately 2.8 miles. Figures 2-13 show the Vibratory Temporary Effect Area for each of the 12 sites.

The Port may collect site-specific, in-water noise background data before the start of the project to determine if the monitoring area can be reduced.

### **In-Water Impact Pile Installation**

NMFS has established impact pile driving underwater noise injury thresholds of 180 dB<sub>RMS</sub> for cetaceans and 190 dB<sub>RMS</sub> for pinnipeds, and impact pile driving disturbance thresholds of 160 dB<sub>RMS</sub> for both cetaceans and pinnipeds. Noise levels during impact pile installation are not expected to exceed the injury thresholds for either pinnipeds or cetaceans, but will likely temporarily exceed the disturbance threshold of 160 dB<sub>RMS</sub> within a portion of the action area at each of the 12 sites (Impact Temporary Effect Area).

Data published by WSDOT indicates that impact installation of timber piles, irrespective of diameter, typically produces underwater noise levels as high as 180 dB<sub>Peak</sub>, 170 dB<sub>RMS</sub>, and 160 dB<sub>SEL</sub> (WSDOT 2011). This same data indicates that impact installation of concrete piles, irrespective of diameter, typically produces single strike sound pressure levels of 192 dB<sub>Peak</sub>, 176 dB<sub>RMS</sub>, and 174 dB<sub>SEL</sub> (WSDOT 2011). WSDOT has published project-specific data documenting significantly lower decibel levels (184 dB<sub>Peak</sub>, 170 dB<sub>RMS</sub>, and 159dB<sub>SEL</sub>) during impact driving of 24-inch concrete piles. This analysis uses higher decibel levels for a conservative estimate of the extent of underwater noise.



The distance at which 176 dB<sub>RMS</sub> is expected to attenuate to 160 dB<sub>RMS</sub> using the practical spreading model is approximately 382 feet. Figures 2-13 show the Impact Temporary Effect Area for each of the 12 sites.

## **SPECIES PRESENCE**

Orca, humpback whale, and Steller sea lions are not expected to be present within the Sitcum, Blair, or Hylebos waterways at any time, and are therefore unlikely to be exposed to elevated underwater noise associated with any pile removal or installation conducted at Parcels 86, 99, and 105 (sites 9, 10, and 11 on Figures 10, 11, and 12).

Additionally, pile removal or installation conducted at the Blair dock, Parcel 116, BRAC property, and the Washington United Terminal (WUT) (sites 5, 6, 8, and 12 on Figures 6, 7, 9, and 13) is only expected to elevate sound levels within Commencement Bay within a small area, where ESA-listed marine mammals are unlikely to be present, or within such a small area that the noise would be insignificant.

As presented in the PBE, orca, humpback whale, and Steller sea lion are unlikely to be present within Commencement Bay between July 16 and September 30, and pile removal and installation conducted during this time period would not be expected to affect any ESA-listed marine mammals (Osborne 2008; Mongillo 2012). Orcas are most commonly observed in Commencement Bay between approximately October and January, with the greatest potential for occurrence being the months of December and January (Osborne 2008). Humpback whales are sighted only occasionally in south Puget Sound, and are unlikely to occur within the waters of inner commencement Bay at any time of year. Similarly, Steller sea lions do not occur frequently in the inland waters of Washington, and occur only occasionally in the waters of Commencement Bay.

## **MONITORING SCHEDULE**

Marine mammal monitoring will be implemented between October 1 and February 14 to avoid impacts to orca, humpback whale, or Steller sea lion as determined by the PBE prepared for this project. The monitoring will be implemented at the pile replacement activity-specific locations identified below under Monitoring Areas and as detailed below under Monitoring Protocol.

## **MONITORING AREAS (VIBRATORY & IMPACT PILE REPLACEMENT ACTIVITIES)**

The sites at which vibratory pile removal and/or installation could potentially affect orca, humpback whale, or Steller sea lions are the APM Terminal, Terminal 7, Olympic Container Terminal (OCT), Husky Container Terminal and Trident piers 24 and 25 (sites 1-4 and 7 on Figures 2—5 and 8). Therefore, during any vibratory pile removal or installation conducted at these sites (sites 1-4 and 7 on Figures 2-5 and 8), the Vibratory Monitoring Area within the 120 dBRMS Vibratory Temporary Effect Area identified on the respective figures will be monitored and maintained as a marine mammal buffer area. Vibratory pile removal or installation will not commence or will be suspended temporarily if any orca, humpback whale, or Steller sea lion is present within the Vibratory Monitoring Area (i.e., marine mammal buffer) for the respective site at which vibratory pile replacement activities are being conducted (sites 1-4 and 7 on Figures 2-5 and 8).

The only site at which impact pile installation could potentially affect orca, humpback whale, or Steller sea lions is at Trident piers 24 and 25 (site 7 on Figure 8). Therefore, during any impact pile installation conducted at site 7, the respective Impact Monitoring Area within the 160 dBRMS Impact Temporary Effect Area identified on Figure 8 will be will be monitored and maintained as a marine mammal buffer area. Impact pile installation will not commence or will be suspended temporarily if any orca, humpback whale, or Steller sea lion is present within the site 7 (Figure 8) Impact Monitoring Area (i.e., marine mammal buffer).

The Port may collect site-specific in-water noise background data before the start of a pile replacement project, to determine if the monitoring areas can be reduced.

## **MONITORING PROTOCOL**

The Port will conduct the following marine mammal monitoring activities during the timeframe indicated under the Monitoring Schedule above, and at the locations and during the activities described above under Monitoring Areas:

1. Qualified biologists or other trained marine mammal observers who meet the attached list of qualifications for marine mammal observers will be present on site at all times during pile

removal/driving activities per the Monitoring Schedule and at the Monitoring Areas described above.

2. Two observers will monitor the Vibratory Monitoring Area as required by the Monitoring Schedule and Monitoring Areas detailed above (October 1 to February 14, see above for respective sites and figures). The first observer will be in the vicinity of the proposed pile replacement activity. The second observer will be either at a land-based location or on a boat travelling within the area of vibratory impact. The most likely land based locations for the second observer would be either at a location on Browns Point, along Marine View Drive, or along the southwestern shoreline of Commencement Bay.
3. A single observer will monitor the Impact Monitoring Area as required by the Monitoring Schedule and Monitoring Areas detailed above (October 1 to February 14, site 7 only, Figure 8).
4. The observer(s) will use binoculars and visual observation to scan the waters within the respective Monitoring Area.
5. The observer(s) will scan the waters 20 minutes before the beginning of pile removal/driving activities and during all pile removal/driving activities. The observer(s) will notify the on-site operator in charge if Southern Resident orca, humpback whale, or Steller sea lion enter or are observed within the respective Monitoring Area 20 minutes prior to or during pile driving. The operator in charge will require the contractor to not begin or to cease work until the animal has moved outside of the Monitoring Area.

#### **MINIMUM QUALIFICATIONS FOR MARINE MAMMAL OBSERVERS**



1. Visual acuity in both eyes (correction is permissible) sufficient to discern moving targets at the water's surface and to estimate target size and distance. Use of binoculars may be necessary to identify the target correctly.
2. Advanced education in biological science, wildlife management, mammalogy, or related field (bachelor's degree or higher is preferred).
3. Experience and ability to conduct field observations and collect data according to assigned protocols (this may include academic experience).
4. Experience or training in the field identification of marine mammals (cetaceans and pinnipeds).
5. Sufficient training, orientation, or experience with the construction operation to preserve personal safety during observations.
6. Ability to communicate orally, by radio or in person, with project personnel to provide real time information on marine mammals observed in the area as necessary.

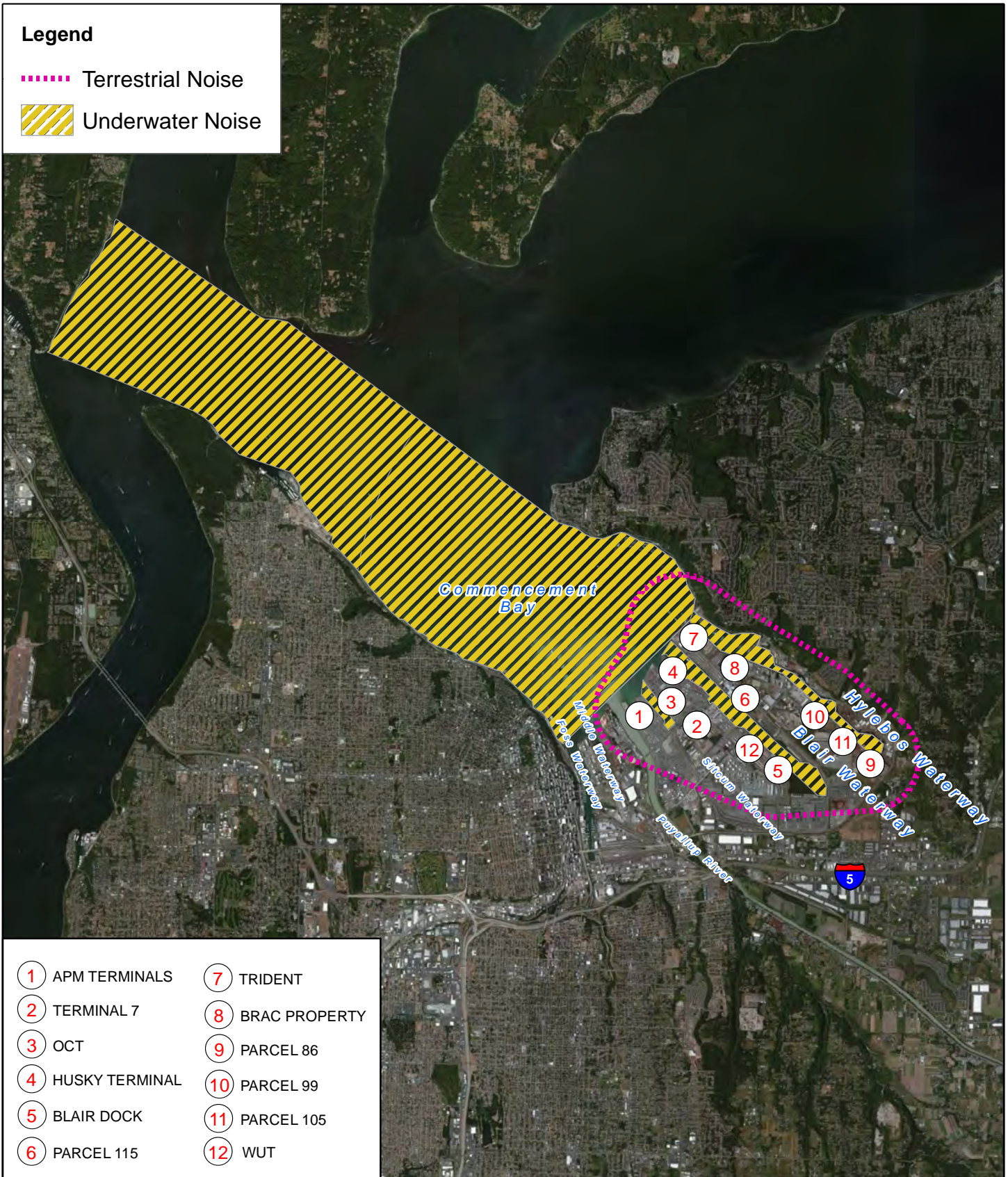
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- Laughlin, Jim. 2007. Underwater Sound Levels Associated With Driving Steel and Concrete Piles Near the Mukilteo Ferry Terminal. March 2007.
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- Reyff, James. 2007. Compendium of Pile Driving Sound Data. Prepared for the California Department of Transportation, Sacramento, CA, by Illinworth & Rodkin, Petaluma, CA. September 27, 2007.
- Washington State Department of Transportation (WSDOT). 2011. Biological Assessment Preparation – Advanced Training Manual Version 02-2011. February 2011.



**Legend**

-  Terrestrial Noise
-  Underwater Noise



- |  |   |
|--|---|
|  1 APM TERMINALS  |  7 TRIDENT       |
|  2 TERMINAL 7     |  8 BRAC PROPERTY |
|  3 OCT            |  9 PARCEL 86     |
|  4 HUSKY TERMINAL |  10 PARCEL 99    |
|  5 BLAIR DOCK     |  11 PARCEL 105   |
|  6 PARCEL 115     |  12 WUT          |



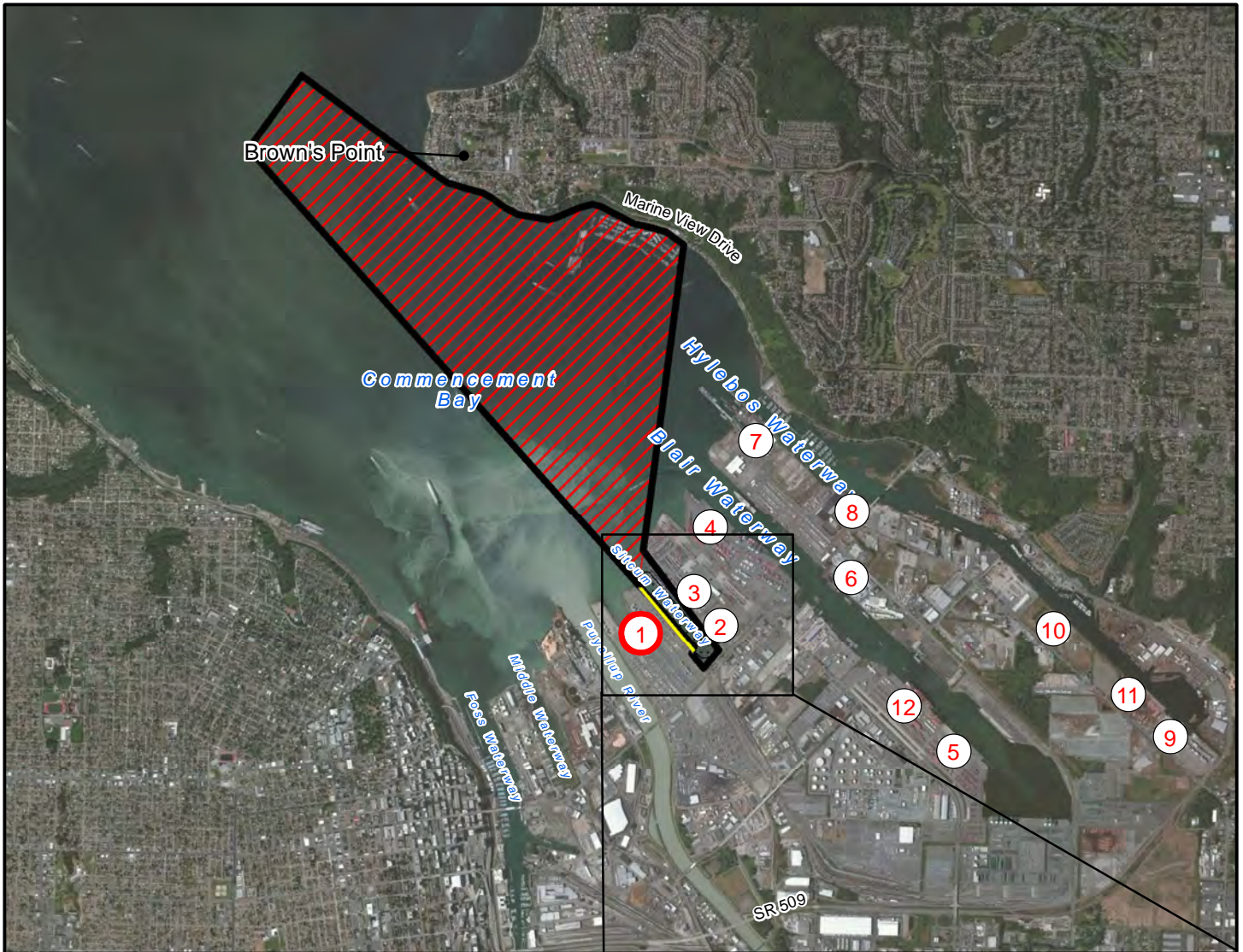
**Figure 1 - Action Area**

**Programmatic Piling Repair Project - Biological Evaluation  
Appendix C: Marine Mammal Monitoring Plan**



Source: Pierce County GIS (2011)





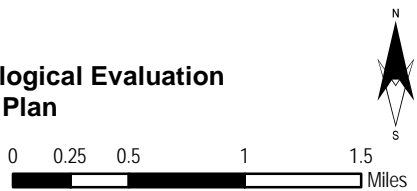
- Vibratory Temp. Effect Area (Removal/Installation)
- Vibratory Monitoring Area (Removal/Installation)
- Impact Temp. Effect Area (Installation)
- Impact Monitoring Area (Installation)
- Site

- |                  |                 |
|------------------|-----------------|
| 1 APM TERMINALS  | 7 TRIDENT       |
| 2 TERMINAL 7     | 8 BRAC PROPERTY |
| 3 OCT            | 9 PARCEL 86     |
| 4 HUSKY TERMINAL | 10 PARCEL 99    |
| 5 BLAIR DOCK     | 11 PARCEL 105   |
| 6 PARCEL 115     | 12 WUT          |

Enlarged View



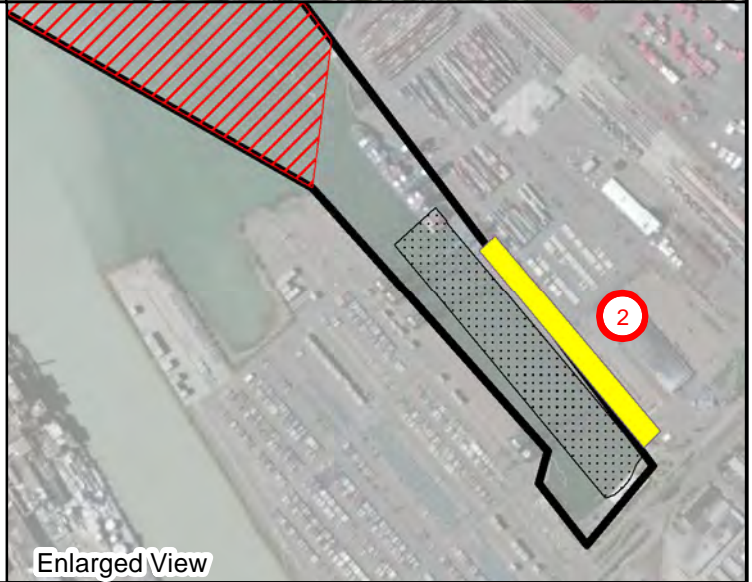
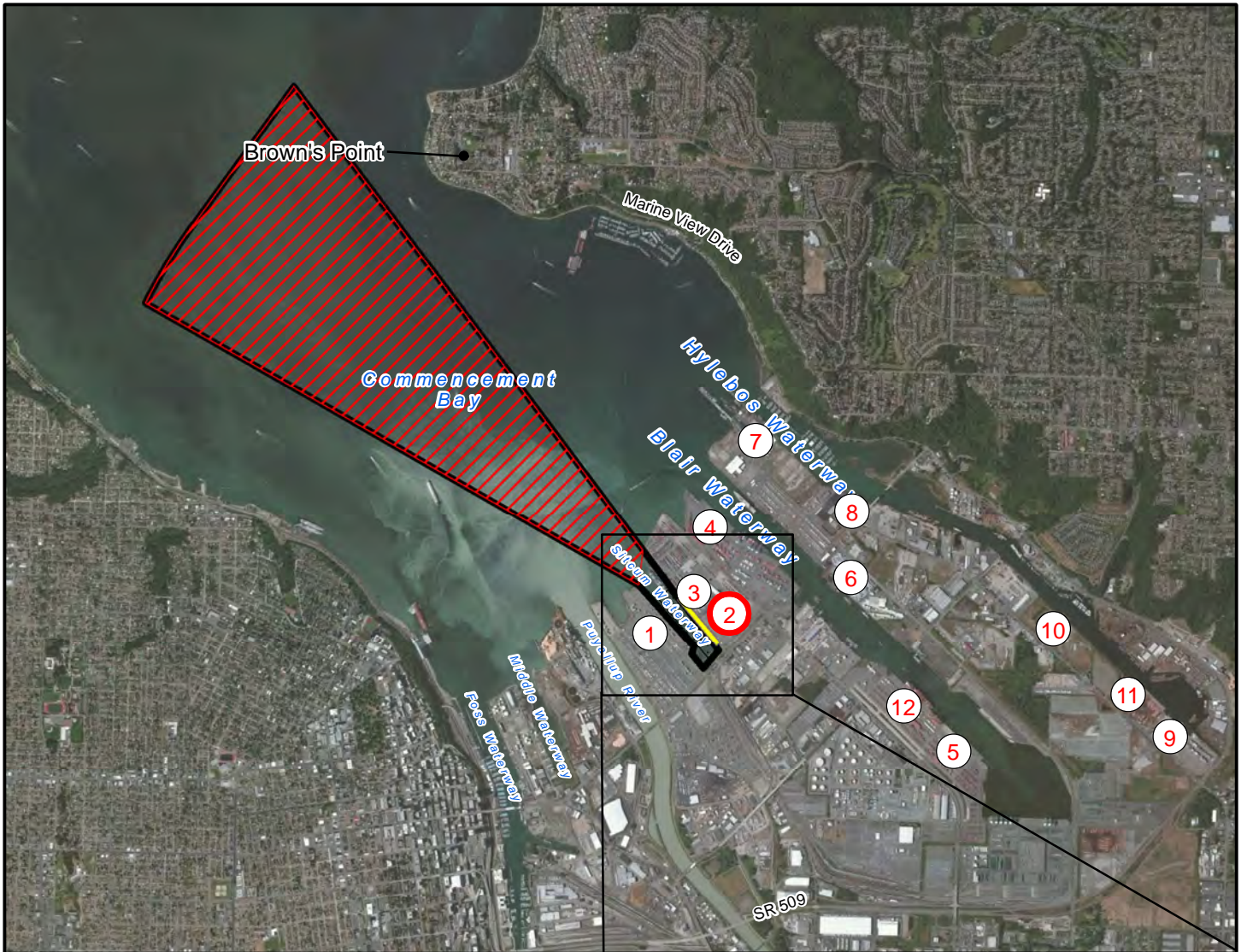
**Figure 2 - Site 1**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**



Source: Pierce County GIS (2011)





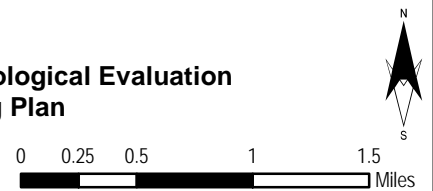


- Vibratory Temp. Effect Area (Removal/Installation)
- Vibratory Monitoring Area (Removal/Installation)
- Impact Temp. Effect Area (Installation)
- Impact Monitoring Area (Installation)
- Site

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|------------------|-----------------|
| 1 APM TERMINALS  | 7 TRIDENT       |
| 2 TERMINAL 7     | 8 BRAC PROPERTY |
| 3 OCT            | 9 PARCEL 86     |
| 4 HUSKY TERMINAL | 10 PARCEL 99    |
| 5 BLAIR DOCK     | 11 PARCEL 105   |
| 6 PARCEL 115     | 12 WUT          |








**Figure 3 - Site 2**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**















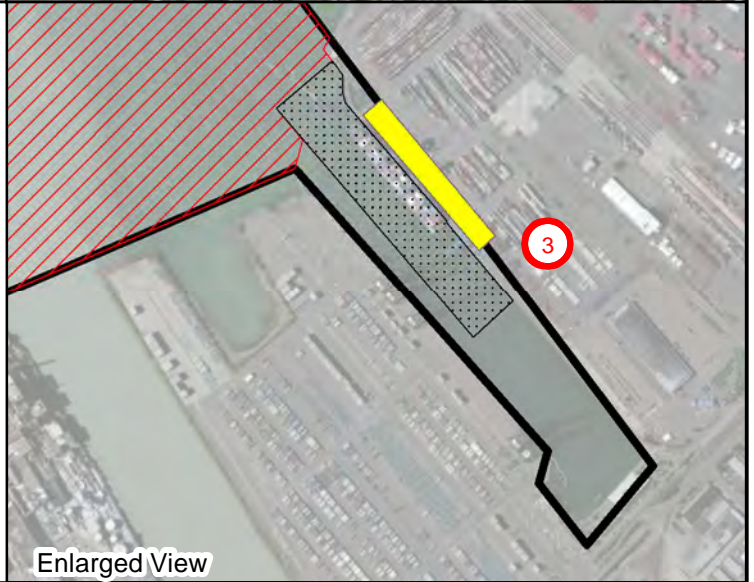
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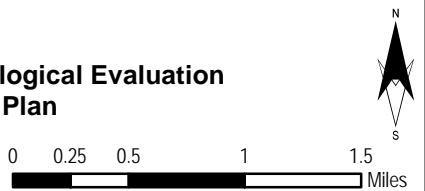


-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

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|--|---|
|  1 APM TERMINALS  |  7 TRIDENT       |
|  2 TERMINAL 7     |  8 BRAC PROPERTY |
|  3 OCT            |  9 PARCEL 86     |
|  4 HUSKY TERMINAL |  10 PARCEL 99    |
|  5 BLAIR DOCK     |  11 PARCEL 105   |
|  6 PARCEL 115     |  12 WUT          |

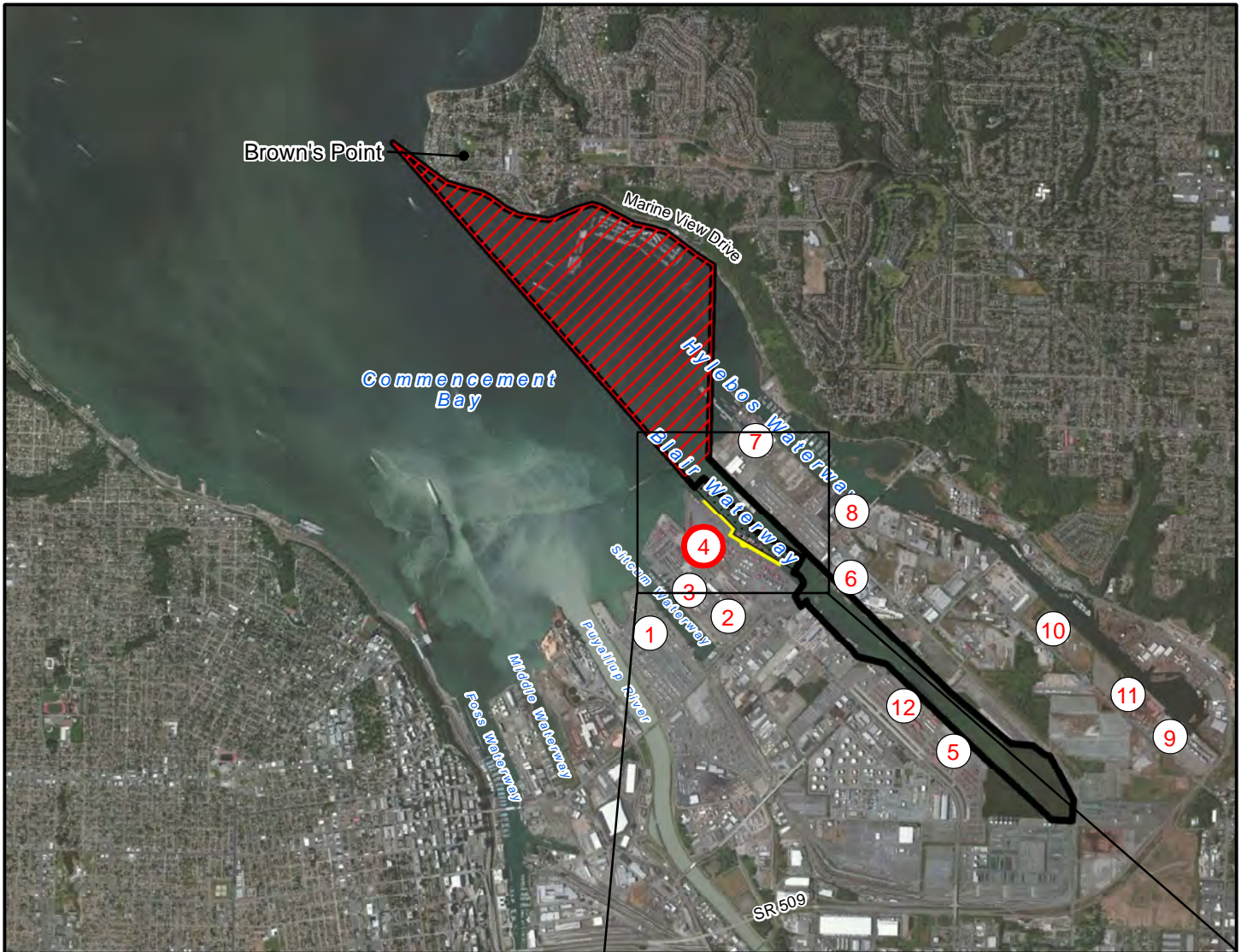







**Figure 4 - Site 3**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**















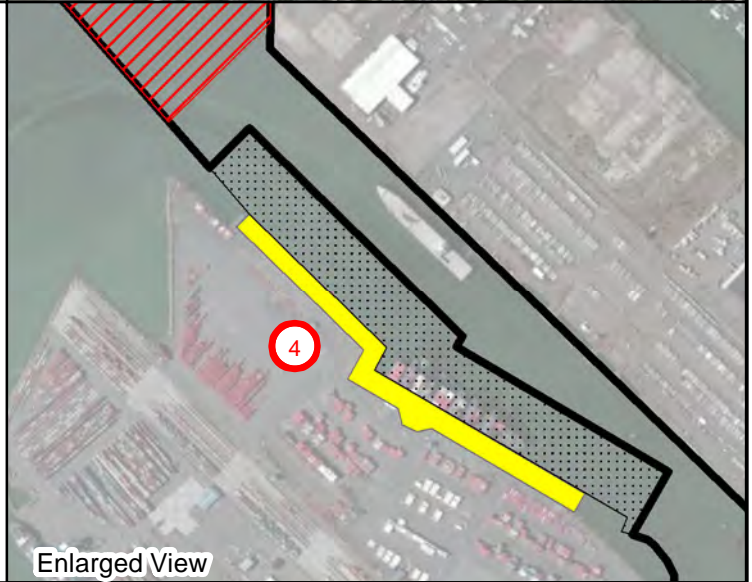
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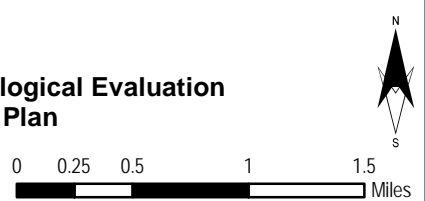


 Vibratory Temp. Effect Area (Removal/Installation)  
 Vibratory Monitoring Area (Removal/Installation)  
 Impact Temp. Effect Area (Installation)  
 Impact Monitoring Area (Installation)  
 Site

 1 APM TERMINALS	 7 TRIDENT
 2 TERMINAL 7	 8 BRAC PROPERTY
 3 OCT	 9 PARCEL 86
 4 HUSKY TERMINAL	 10 PARCEL 99
 5 BLAIR DOCK	 11 PARCEL 105
 6 PARCEL 115	 12 WUT








**Figure 5 - Site 4**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**















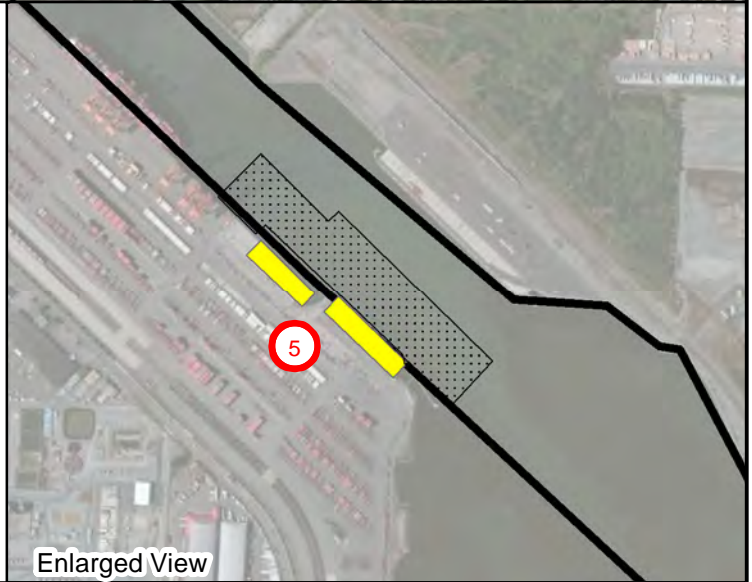
Source: Pierce County GIS (2011)





-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

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|--|---|
|  1 APM TERMINALS  |  7 TRIDENT       |
|  2 TERMINAL 7     |  8 BRAC PROPERTY |
|  3 OCT            |  9 PARCEL 86     |
|  4 HUSKY TERMINAL |  10 PARCEL 99    |
|  5 BLAIR DOCK     |  11 PARCEL 105   |
|  6 PARCEL 115     |  12 WUT          |



**Figure 6 - Site 5**

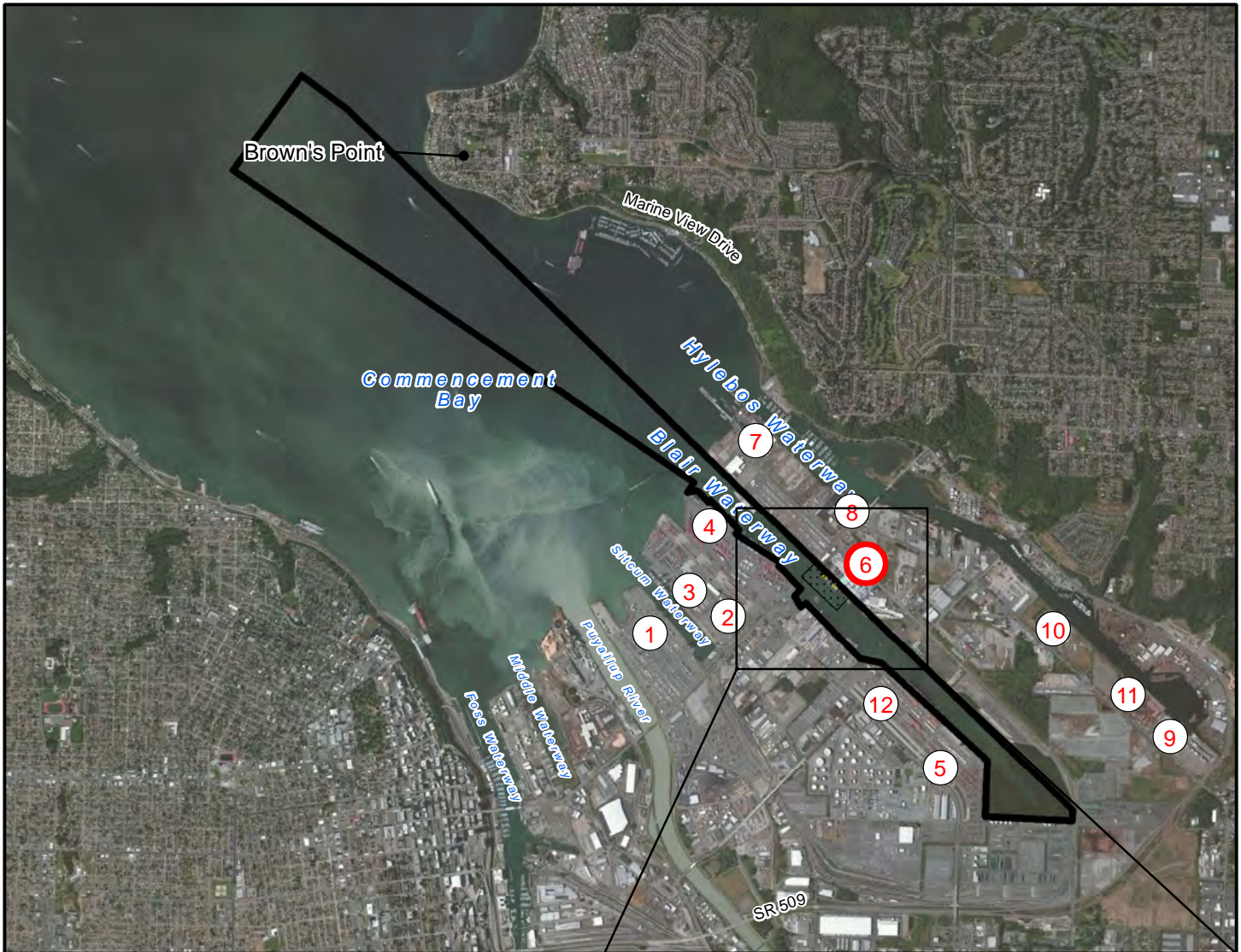
**Programmatic Piling Repair Project - Biological Evaluation  
Appendix C: Marine Mammal Monitoring Plan  
Temporary Effect and Monitoring Areas**




















Source: Pierce County GIS (2011)

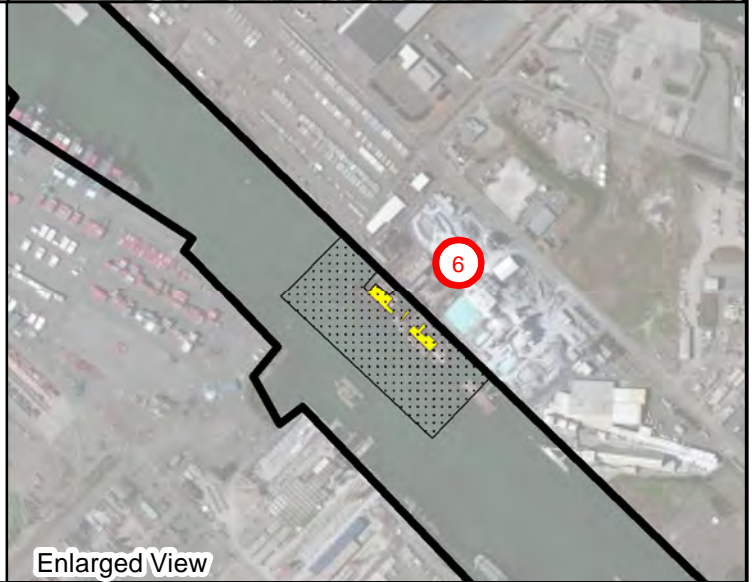






-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

- |  |   |
|--|---|
|  1 APM TERMINALS  |  7 TRIDENT       |
|  2 TERMINAL 7     |  8 BRAC PROPERTY |
|  3 OCT            |  9 PARCEL 86     |
|  4 HUSKY TERMINAL |  10 PARCEL 99    |
|  5 BLAIR DOCK     |  11 PARCEL 105   |
|  6 PARCEL 115     |  12 WUT          |



**Figure 7 - Site 6**

**Programmatic Piling Repair Project - Biological Evaluation  
Appendix C: Marine Mammal Monitoring Plan  
Temporary Effect and Monitoring Areas**



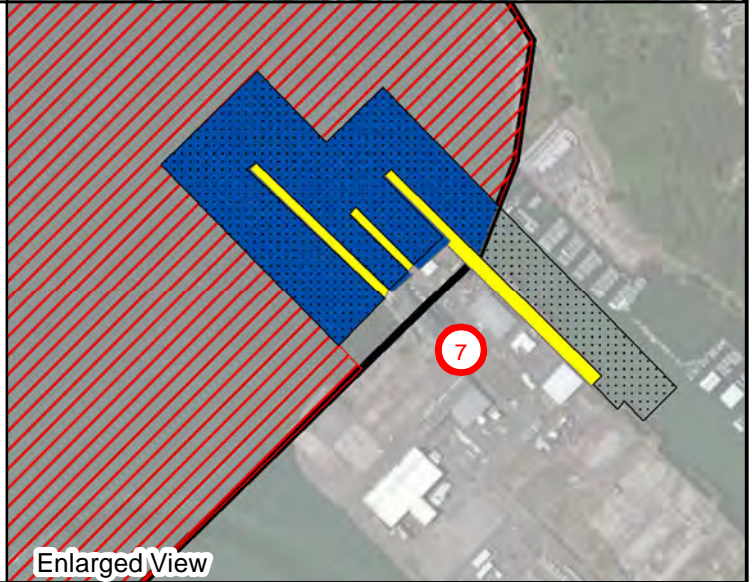
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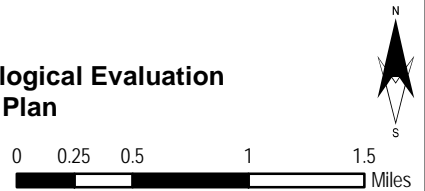


- Vibratory Temp. Effect Area (Removal/Installation)
- Vibratory Monitoring Area (Removal/Installation)
- Impact Temp. Effect Area (Installation)
- Impact Monitoring Area (Installation)
- Site

- |                  |                 |
|------------------|-----------------|
| 1 APM TERMINALS  | 7 TRIDENT       |
| 2 TERMINAL 7     | 8 BRAC PROPERTY |
| 3 OCT            | 9 PARCEL 86     |
| 4 HUSKY TERMINAL | 10 PARCEL 99    |
| 5 BLAIR DOCK     | 11 PARCEL 105   |
| 6 PARCEL 115     | 12 WUT          |

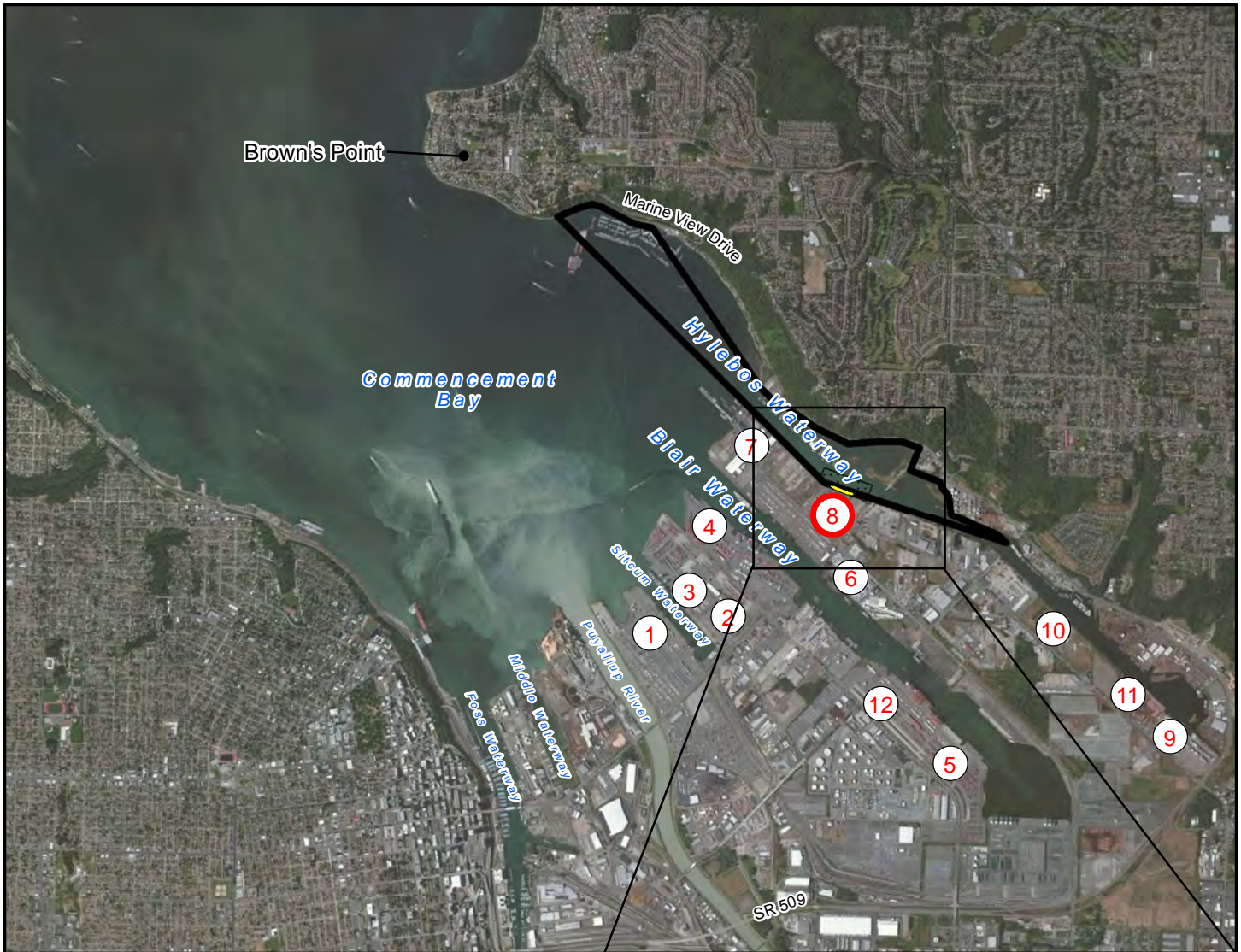







**Figure 8 - Site 7**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**



Source: Pierce County GIS (2011)





-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

- |                  |                 |
|------------------|-----------------|
| 1 APM TERMINALS  | 7 TRIDENT       |
| 2 TERMINAL 7     | 8 BRAC PROPERTY |
| 3 OCT            | 9 PARCEL 86     |
| 4 HUSKY TERMINAL | 10 PARCEL 99    |
| 5 BLAIR DOCK     | 11 PARCEL 105   |
| 6 PARCEL 115     | 12 WUT          |



Enlarged View



Figure 9 - Site 8






Programmatic Piling Repair Project - Biological Evaluation  
 Appendix C: Marine Mammal Monitoring Plan  
 Temporary Effect and Monitoring Areas















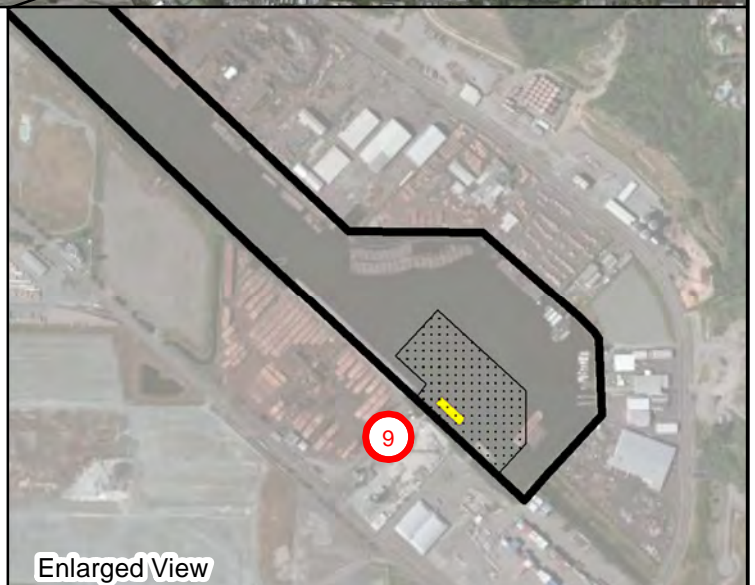
Source: Pierce County GIS (2011)





-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

- |  |   |
|--|---|
|  1 APM TERMINALS  |  7 TRIDENT       |
|  2 TERMINAL 7     |  8 BRAC PROPERTY |
|  3 OCT            |  9 PARCEL 86     |
|  4 HUSKY TERMINAL |  10 PARCEL 99    |
|  5 BLAIR DOCK     |  11 PARCEL 105   |
|  6 PARCEL 115     |  12 WUT          |



Enlarged View



Figure 10 - Site 9

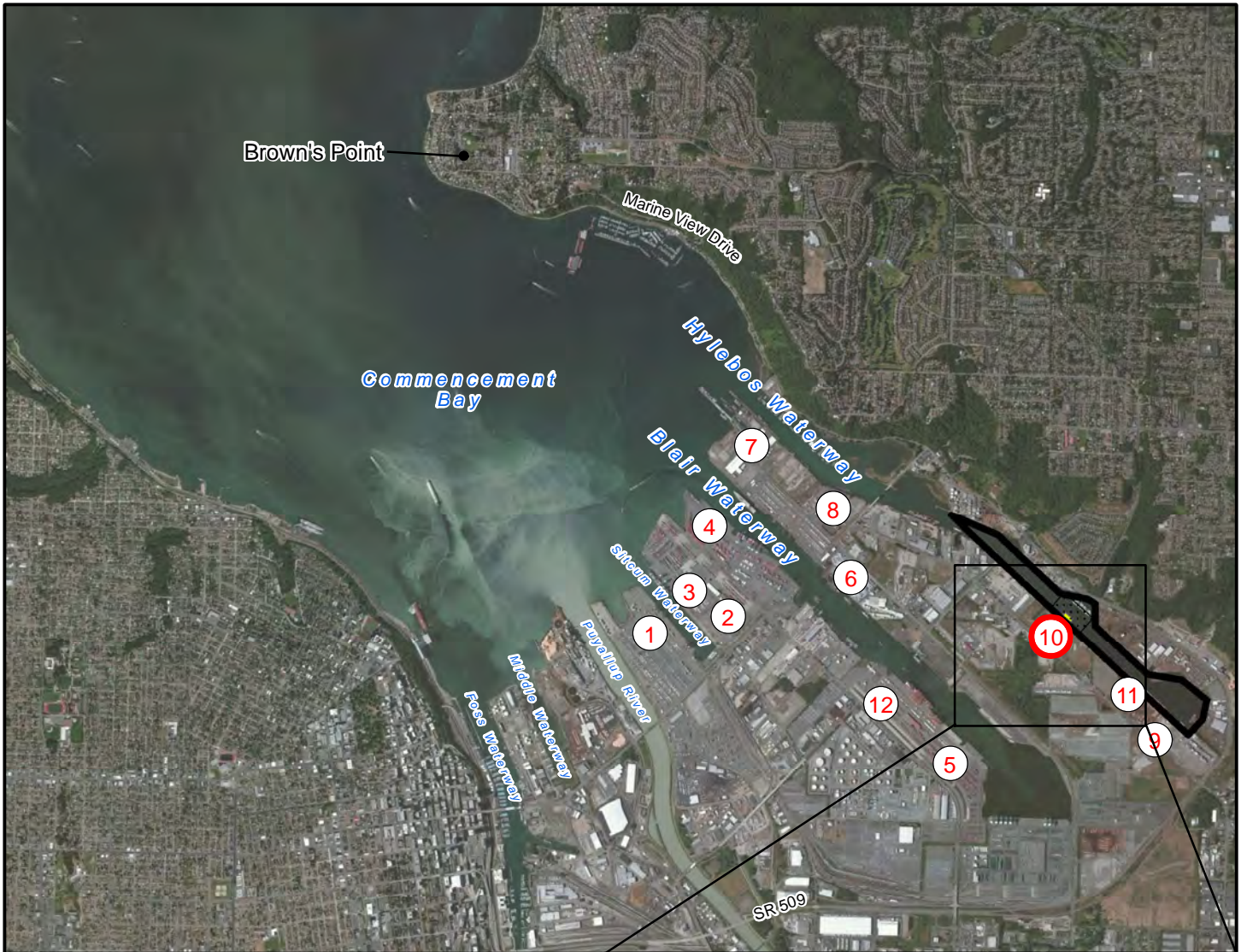
Programmatic Piling Repair Project - Biological Evaluation  
 Appendix C: Marine Mammal Monitoring Plan  
 Temporary Effect and Monitoring Areas








Source: Pierce County GIS (2011)





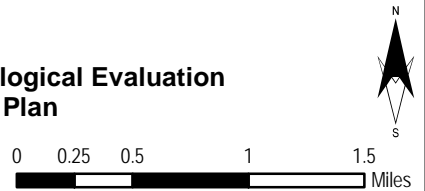


-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

- |                  |                 |
|------------------|-----------------|
| 1 APM TERMINALS  | 7 TRIDENT       |
| 2 TERMINAL 7     | 8 BRAC PROPERTY |
| 3 OCT            | 9 PARCEL 86     |
| 4 HUSKY TERMINAL | 10 PARCEL 99    |
| 5 BLAIR DOCK     | 11 PARCEL 105   |
| 6 PARCEL 115     | 12 WUT          |



**Figure 11 - Site 10**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**



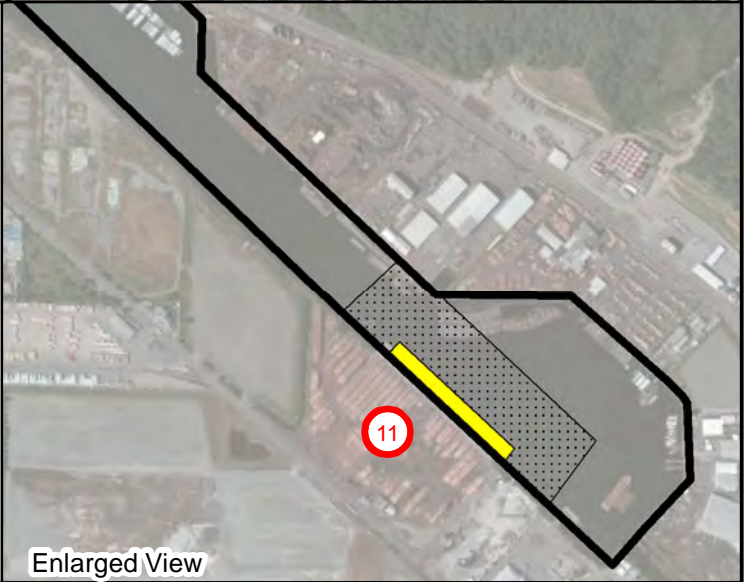
Source: Pierce County GIS (2011)





- Vibratory Temp. Effect Area (Removal/Installation)
- Vibratory Monitoring Area (Removal/Installation)
- Impact Temp. Effect Area (Installation)
- Impact Monitoring Area (Installation)
- Site

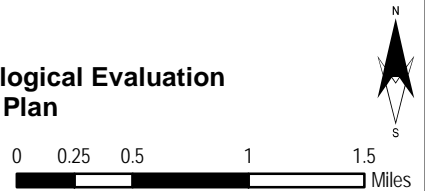
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|------------------|-----------------|
| 1 APM TERMINALS  | 7 TRIDENT       |
| 2 TERMINAL 7     | 8 BRAC PROPERTY |
| 3 OCT            | 9 PARCEL 86     |
| 4 HUSKY TERMINAL | 10 PARCEL 99    |
| 5 BLAIR DOCK     | 11 PARCEL 105   |
| 6 PARCEL 115     | 12 WUT          |



Enlarged View

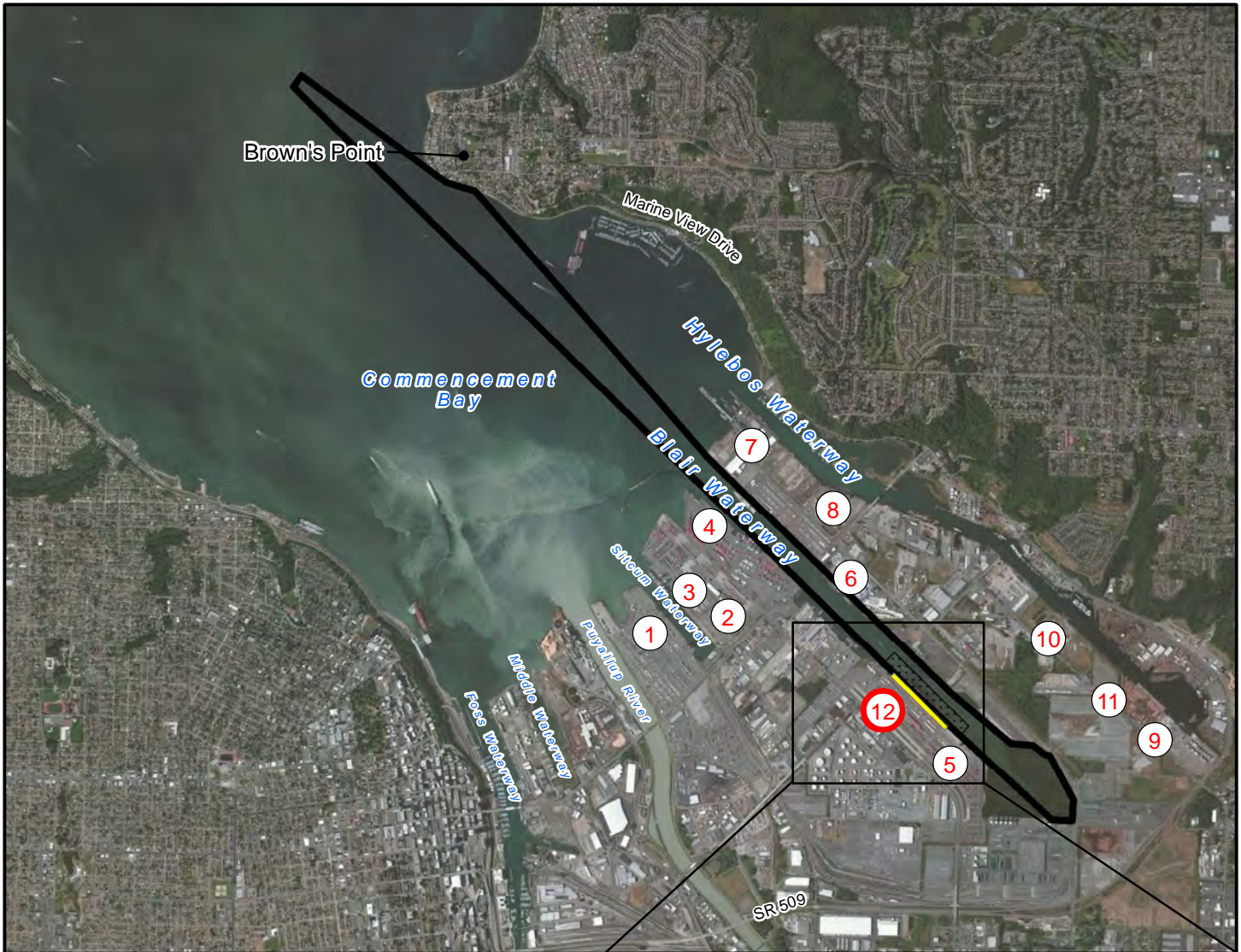







**Figure 12 - Site 11**  
**Programmatic Piling Repair Project - Biological Evaluation**  
**Appendix C: Marine Mammal Monitoring Plan**  
**Temporary Effect and Monitoring Areas**















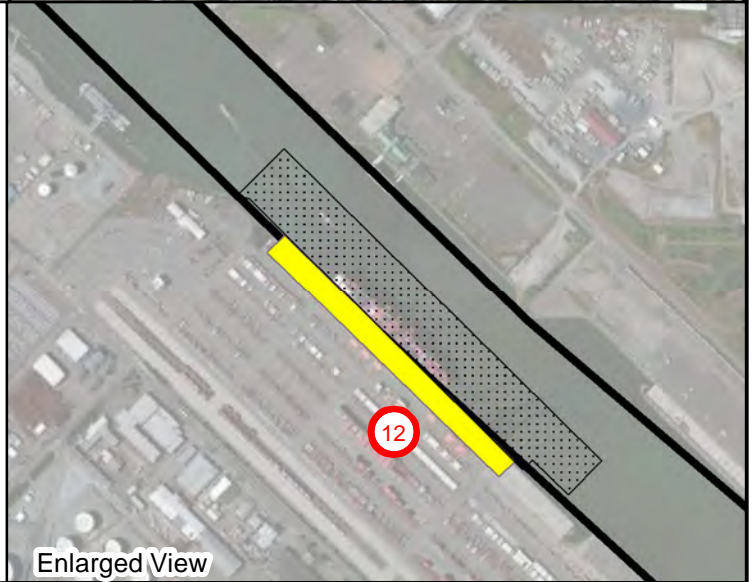
Source: Pierce County GIS (2011)





-  Vibratory Temp. Effect Area (Removal/Installation)
-  Vibratory Monitoring Area (Removal/Installation)
-  Impact Temp. Effect Area (Installation)
-  Impact Monitoring Area (Installation)
-  Site

- |  |   |
|--|---|
|  1 APM TERMINALS  |  7 TRIDENT       |
|  2 TERMINAL 7     |  8 BRAC PROPERTY |
|  3 OCT            |  9 PARCEL 86     |
|  4 HUSKY TERMINAL |  10 PARCEL 99    |
|  5 BLAIR DOCK     |  11 PARCEL 105   |
|  6 PARCEL 115     |  12 WUT          |



**Figure 13 - Site 12**

**Programmatic Piling Repair Project - Biological Evaluation  
Appendix C: Marine Mammal Monitoring Plan  
Temporary Effect and Monitoring Areas**



Source: Pierce County GIS (2011)



# **APPENDIX D**

## **Species Lists**

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# Endangered Species Act Status of West Coast Salmon & Steelhead

(Updated Aug. 11, 2011)

		Species <sup>1</sup>	Current Endangered Species Act Listing Status <sup>2</sup>	ESA Listing Actions Under Review
Sockeye Salmon ( <i>Oncorhynchus nerka</i> )	1	Snake River	Endangered	
	2	Ozette Lake	Threatened	
	3	Baker River	Not Warranted	
	4	Okanogan River	Not Warranted	
	5	Lake Wenatchee	Not Warranted	
	6	Quinalt Lake	Not Warranted	
	7	Lake Pleasant	Not Warranted	
Chinook Salmon ( <i>O. tshawytscha</i> )	8	Sacramento River Winter-run	Endangered	
	9	Upper Columbia River Spring-run	Endangered	
	10	Snake River Spring/Summer-run	Threatened	
	11	Snake River Fall-run	Threatened	
	12	Puget Sound	Threatened	
	13	Lower Columbia River	Threatened	
	14	Upper Willamette River	Threatened	
	15	Central Valley Spring-run	Threatened	
	16	California Coastal	Threatened	
	17	Central Valley Fall and Late Fall-run	Species of Concern	
	18	Upper Klamath-Trinity Rivers	Not Warranted	
	19	Oregon Coast	Not Warranted	
	20	Washington Coast	Not Warranted	
	21	Middle Columbia River spring-run	Not Warranted	
	22	Upper Columbia River summer/fall-run	Not Warranted	
	23	Southern Oregon and Northern California Coast	Not Warranted	
	24	Deschutes River summer/fall-run	Not Warranted	
Coho Salmon ( <i>O. kisutch</i> )	25	Central California Coast	Endangered	
	26	Southern Oregon/Northern California	Threatened	
	27	Lower Columbia River	Threatened	• Critical habitat
	28	Oregon Coast	Threatened	
	29	Southwest Washington	Undetermined	
	30	Puget Sound/Strait of Georgia	Species of Concern	
	31	Olympic Peninsula	Not Warranted	
Chum Salmon ( <i>O. keta</i> )	32	Hood Canal Summer-run	Threatened	
	33	Columbia River	Threatened	
	34	Puget Sound/Strait of Georgia	Not Warranted	
	35	Pacific Coast	Not Warranted	
Steelhead ( <i>O. mykiss</i> )	36	Southern California	Endangered	
	37	Upper Columbia River	Threatened	
	38	Central California Coast	Threatened	
	39	South Central California Coast	Threatened	
	40	Snake River Basin	Threatened	
	41	Lower Columbia River	Threatened	
	42	California Central Valley	Threatened	
	43	Upper Willamette River	Threatened	
	44	Middle Columbia River	Threatened	
	45	Northern California	Threatened	
	46	Oregon Coast	Species of Concern	
	47	Southwest Washington	Not Warranted	
	48	Olympic Peninsula	Not Warranted	
	49	Puget Sound	Threatened	• Critical habitat
	50	Klamath Mountains Province	Not Warranted	
Pink Salmon ( <i>O. gorbuscha</i> )	51	Even-year	Not Warranted	
	52	Odd-year	Not Warranted	

<sup>1</sup> The ESA defines a “species” to include any distinct population segment of any species of vertebrate fish or wildlife. For Pacific salmon, NOAA Fisheries Service considers an evolutionarily significant unit, or “ESU,” a “species” under the ESA. For Pacific steelhead, NOAA Fisheries Service has delineated distinct population segments (DPSs) for consideration as “species” under the ESA.



# Northwest Regional Office

## NOAA's National Marine Fisheries Service

<a href="#">ESA Salmon Listings</a>	<a href="#">ESA Regulations &amp; Permits</a>	<a href="#">Salmon Habitat</a>	<a href="#">Salmon Harvest &amp; Hatcheries</a>	<a href="#">Marine Mammals</a>
<a href="#">Salmon &amp; Hydropower</a>	<a href="#">Salmon Recovery Planning</a>	<a href="#">Groundfish &amp; Halibut</a>	<a href="#">Permits &amp; Other Marine Species</a>	

[Home](#) > [Marine Mammals](#) > [ESA MM List](#)

### ESA-Listed Marine Mammals

Under the jurisdiction of NOAA Fisheries that may occur:

#### off Washington & Oregon

- [Southern Resident killer whale](#) (*Orcinus orca*) (E); [critical habitat](#)
- [humpback whale](#) (*Megaptera novaeangliae*) (E)
- [blue whale](#) (*Balaenoptera musculus*) (E)
- [fin whale](#) (*Balaenoptera physalus*) (E)
- [sei whale](#) (*Balaenoptera borealis*) (E)
- [sperm whale](#) (*Physeter macrocephalus*) (E)
- [Steller sea lion](#) (*Eumetopias jubatus*) (T); [critical habitat](#)

#### in Puget Sound

- [Southern Resident killer whale](#) (*Orcinus orca*) (E); [critical habitat](#)
- [humpback whale](#) (*Megaptera novaeangliae*) (E)
- [Steller sea lion](#) (*Eumetopias jubatus*) (T); [critical habitat](#)

(E) = Endangered

(T) = Threatened

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# Northwest Regional Office

## NOAA's National Marine Fisheries Service

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<a href="#">Salmon &amp; Hydropower</a>	<a href="#">Salmon Recovery Planning</a>	<a href="#">Groundfish &amp; Halibut</a>	<a href="#">Permits &amp; Other Marine Species</a>	

[Home](#) > [Other Marine Species](#) > ESA Other List

### Other ESA-Listed Species

Under the jurisdiction of NOAA Fisheries that may occur off Washington & Oregon:

- distinct population segment, or DPS, of [bocaccio](#) (*Sebastes paucispinis*) (E) in Puget Sound
- distinct population segment, or DPS, of [canary rockfish](#) (*Sebastes pinniger*) (T) in Puget Sound
- distinct population segment, or DPS, of [yelloweye rockfish](#) (*Sebastes ruberrimus*) (T) in Puget Sound
- southern distinct population segment, or DPS, of [eulachon](#) (Columbia River smelt) (*Thaleichthys pacificus*) (T)
- southern distinct population segment, or DPS, of [north American green sturgeon](#) (*Acipenser medirostris*) (T), listed in the [NOAA Fisheries Southwest Region](#)

(E) = Endangered  
(T) = Threatened

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**LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND  
CRITICAL HABITAT; CANDIDATE SPECIES; AND SPECIES OF CONCERN  
IN PIERCE COUNTY**

**AS PREPARED BY  
THE U.S. FISH AND WILDLIFE SERVICE  
WASHINGTON FISH AND WILDLIFE OFFICE**

**(Revised August 1, 2011)**

**LISTED**

Bull trout (*Salvelinus confluentus*) – Coastal-Puget Sound DPS  
Canada lynx (*Lynx canadensis*)  
Gray wolf (*Canis lupus*)  
Grizzly bear (*Ursus arctos* = *U. a. horribilis*)  
Marbled murrelet (*Brachyramphus marmoratus*)  
Northern spotted owl (*Strix occidentalis caurina*)

Major concerns that should be addressed in your Biological Assessment of project impacts to listed species include:

1. Level of use of the project area by listed species.
2. Effect of the project on listed species' primary food stocks, prey species, and foraging areas in all areas influenced by the project.
3. Impacts from project activities and implementation (e.g., increased noise levels, increased human activity and/or access, loss or degradation of habitat) that may result in disturbance to listed species and/or their avoidance of the project area.

*Arenaria paludicola* (marsh sandwort) [historic]  
*Castilleja levisecta* (golden paintbrush) [historic]  
*Howellia aquatilis* (water howellia)

Major concerns that should be addressed in your Biological Assessment of project impacts to listed plant species include:

1. Distribution of taxon in project vicinity.
2. Disturbance (trampling, uprooting, collecting, etc.) of individual plants and loss of habitat.
3. Changes in hydrology where taxon is found.

## DESIGNATED

Critical habitat for bull trout  
Critical habitat for the marbled murrelet  
Critical habitat for the northern spotted owl

## PROPOSED

None

## CANDIDATE

Fisher (*Martes pennanti*) – West Coast DPS  
Mardon skipper (*Polites mardon*)  
(Roy Prairie and Tacoma) Mazama pocket gopher (*Thomomys mazama* ssp. *glacialis*  
and *tacomensis* [historic])  
North American wolverine (*Gulo gulo luteus*) – contiguous U.S. DPS  
Oregon spotted frog (*Rana pretiosa*)  
Streaked horned lark (*Eremophila alpestris strigata*)  
Taylor's checkerspot (*Euphydryas editha taylori*)  
Yellow-billed cuckoo (*Coccyzus americanus*)  
Whitebark pine (*Pinus albicaulis*)

## SPECIES OF CONCERN

Bald eagle (*Haliaeetus leucocephalus*)  
Cascades frog (*Rana cascadae*)  
Fender's soliperlan stonefly (*Soliperla fenderi*)  
Larch Mountain salamander (*Plethodon larselli*)  
Long-eared myotis (*Myotis evotis*)  
Long-legged myotis (*Myotis volans*)  
Northern goshawk (*Accipiter gentilis*)  
Northern sea otter (*Enhydra lutris kenyonii*)  
Northwestern pond turtle (*Emys* (= *Clemmys*) *marmorata marmorata*)  
Olive-sided flycatcher (*Contopus cooperi*)  
Oregon vesper sparrow (*Pooectetes gramineus affinis*)  
Pacific lamprey (*Lampetra tridentata*)  
Pacific Townsend's big-eared bat (*Corynorhinus townsendii townsendii*)  
Peregrine falcon (*Falco peregrinus*)

River lamprey (*Lampetra ayresi*)  
Slender-billed white-breasted nuthatch (*Sitta carolinensis aculeata*)  
Tailed frog (*Ascaphus truei*)  
Valley silverspot butterfly (*Speyeria zerene bremeri*)  
Western gray squirrel (*Sciurus griseus griseus*)  
Van Dyke's salamander (*Plethodon vandykei*)  
*Aster curtus* (white-top aster)  
*Botrychium ascendens* (triangular-lobed moonwort)  
*Castilleja cryptantha* (obscure paintbrush)  
*Cimicifuga elata* (tall bugbane)  
*Cypripedium fasciculatum* (clustered lady's slipper)  
*Lathyrus torreyi* (Torrey's peavine)

**APPENDIX E**  
**Essential Fish Habitat**

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## **Essential Fish Habitat**

Public Law 104-297, the Sustainable Fisheries Act of 1996, amended the Magnuson-Stevens Fishery Conservation and Management Act to establish new requirements for Essential Fish Habitat (EFH) descriptions in federal fishery management plans and to require federal agencies to consult with NMFS on activities that may adversely affect EFH.

The Magnuson-Stevens Act requires all fishery management councils to amend their fishery management plans to describe and identify EFH for each managed fishery. The Pacific Fishery Management Council (1999) has issued such an amendment in the form of Amendment 14 to the Pacific Coast Salmon Plan, and this amendment covers EFH for the Pacific salmon (Chinook salmon, coho salmon and pink salmon) under NMFS jurisdiction that will potentially be affected by the proposed action.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires consultation for all federal agency actions that may adversely affect Essential Fish Habitat (EFH). The action area is within designated EFH for Pacific salmon, groundfish, and coastal pelagic species.

EFH for groundfish and coastal pelagic species includes all waters from the mean high water line along the coasts of Washington upstream to the extent of saltwater intrusion and seaward to the boundary of the US exclusive economic zone (370.4 km) (PFMC 1998a and 1998b). Designated EFH for salmonid species in estuarine and marine areas includes nearshore and tidally submerged environments within state territorial water out to the full extent of the exclusive economic zone (370.4 km) offshore from Washington (PFMC 1999).

The Magnuson-Stevens Act requires consultation for all federal agency actions that may adversely affect EFH. EFH consultation with NMFS is required by federal agencies undertaking, permitting, or funding activities that may adversely affect EFH, regardless of its location. Under Section 305(b)(4) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. Wherever possible, NMFS utilizes existing interagency coordination processes to fulfill EFH consultations with federal agencies. For the proposed action, this goal is being met by incorporating EFH consultation into the ESA Section 7 consultation, as represented by this PBE.

## **Location**

As stated above, the proposed activities will occur within the Sitcum, Blair, and Hylebos waterways of Puget Sound, near Tacoma, Washington, in Pierce County (Figure 1). The project site is within WRIA 10 (Puyallup-White), and is located within HUC 17110014 (Puyallup) (see PBE section 3 for a complete description of the project location).

## **Description of Project Activities**

The proposed action will consist of replacement of no more than 200 piles per year at 12 Port wharf/dock facilities. Under the proposed pile replacement program, pile replacement will be conducted on an as-needed basis to maintain the function and structural integrity of the docks and marginal wharves within the Port's Industrial Development District. The numbers and specific locations of piles to be replaced will be dependent upon the number assessed as damaged in each given year. The Port estimates that no more than 200 piles would need to be replaced in any given year. This represents approximately 1% of the total number of piles in place at the 12 facilities. The actual number of piles requiring replacement in any given year could be less than 200.

## **Potential Adverse Effects of Project Activities**

The proposed action has the potential to affect EFH for Pacific salmon, groundfish, and coastal pelagic species. Specific elements of the proposed action that could potentially impact EFH are summarized here (see PBE section 9 for a detailed analysis of the potential effects of the project).

Direct effects of the proposed action will be mostly temporary in nature. The only permanent effects of the project will be a minor increase in water quality within the action area resulting from the removal of creosote-treated timber piles. Piles will be replaced within the footprint of the structure from which they are removed, and there will be no net increase in the amount of benthic impacts or overwater structure as a result of the proposed action.

Temporary impacts associated with pile removal will be limited to temporarily impaired water quality conditions, and temporarily elevated noise levels within the action area.

Pile installation activities could disturb sediments and temporarily increase turbidity within waterbodies that represent EFH for Pacific salmon, groundfish, and coastal pelagic species. There is also slight potential for leaks and spills of fuel, hydraulic fluids, lubricants, and other chemicals from equipment and storage containers associated with the project. Discharge of vehicle and equipment wash water, etc., could also add pollutants to the soil that would then be delivered to waterways.

With any over-water work, there is also the potential for construction debris to enter the waterway. Several Conservation Measures (described in PBE Section 3.2) have been implemented to minimize the potential for debris to enter the waterway during construction.

The most significant potential noise-related effects will result from pile installation activities. The proposed action will install up to 200 12-18-inch timber and/or 12-24-inch concrete piles. Piles will mostly be installed via vibratory hammer, but some piles may need to be proofed or partially installed with an impact hammer. Pile driving activities will be restricted to the approved in-water work window for Puget Sound (July 16–February 14 of each year).

## Conservation Measures

Conservation measures that will be implemented by the project are discussed in Section 3.2 of the PBE. The primary conservation measures incorporated into the proposed action include adherence to the in-water work window, implementation of an SPCC plan, the use of small diameter timber and concrete piles, and the use of a vibratory hammer as the primary means of pile installation.

Implementation of these conservation measures will be sufficient to ensure that any impacts to EFH are temporary and insignificant, and do not affect any functional component of EFH for Pacific salmon, groundfish, or coastal pelagic species.

## Conclusions

In accordance with the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act, it has been determined that the project “**will not adversely affect**” EFH for Pacific salmon, groundfish, or coastal pelagic species.

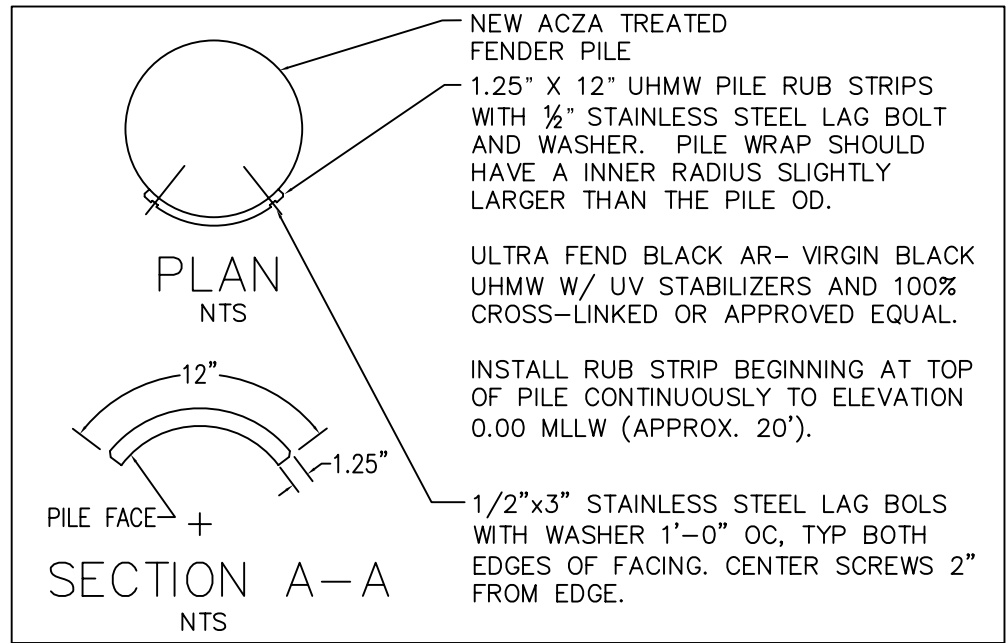
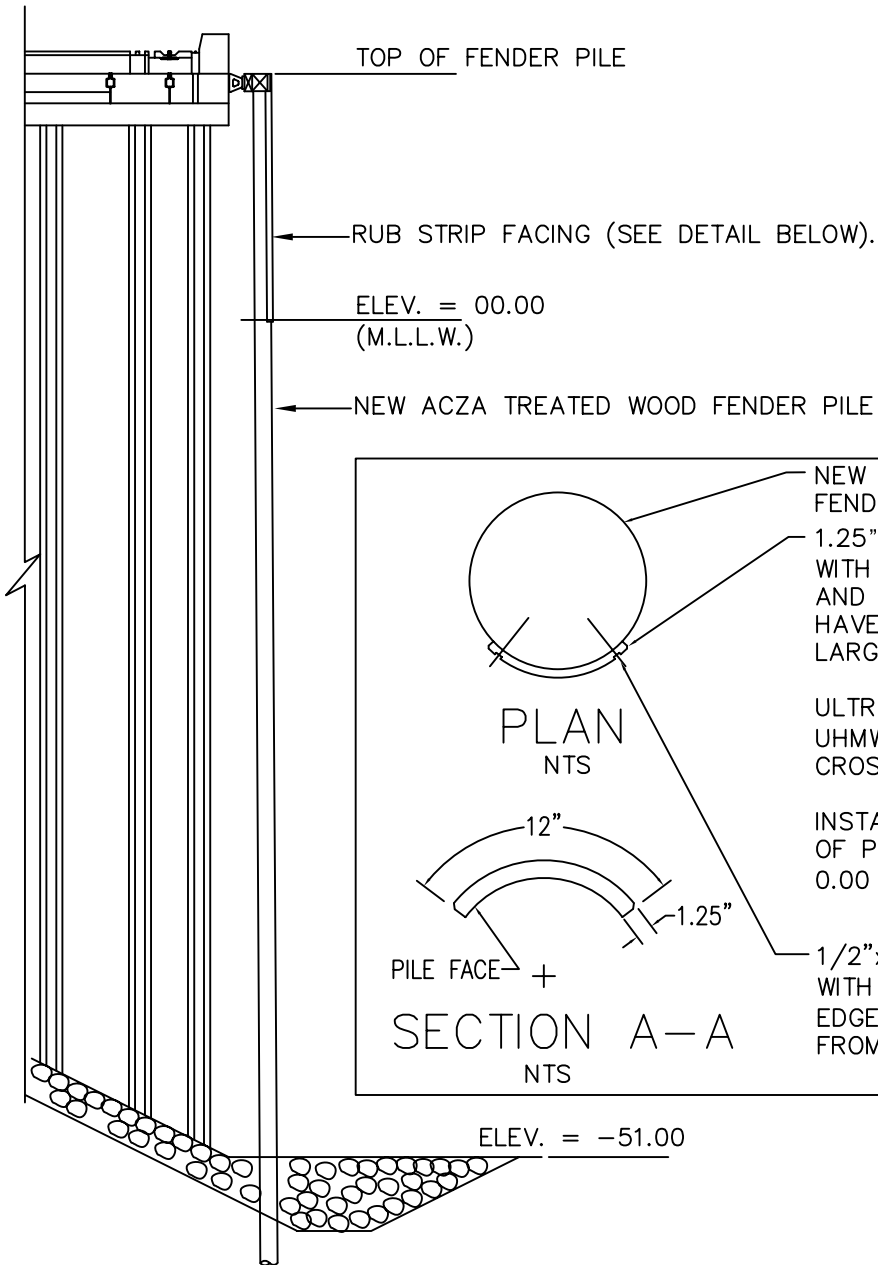
The proposed action has incorporated several conservation measures intended to avoid and/or minimize potential effects to habitat. Water quality and noise impacts that may result during construction will be temporary and will result in no significant effects to any functional component of EFH for Pacific salmon groundfish, and/or coastal pelagic species.



# Appendix C

## Typical Fender Section

### Rub Strip Elevation



NEW ACZA TREATED FENDER PILE

1.25" X 12" UHMW PILE RUB STRIPS WITH 1/2" STAINLESS STEEL LAG BOLT AND WASHER. PILE WRAP SHOULD HAVE A INNER RADIUS SLIGHTLY LARGER THAN THE PILE OD.

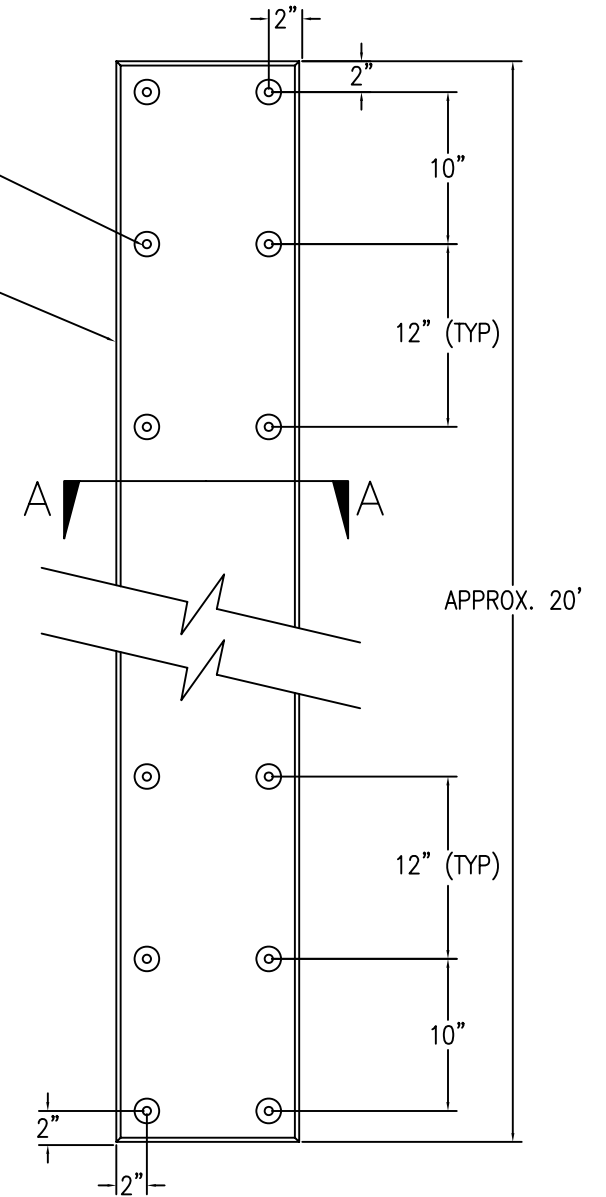
ULTRA FEND BLACK AR- VIRGIN BLACK UHMW W/ UV STABILIZERS AND 100% CROSS-LINKED OR APPROVED EQUAL.

INSTALL RUB STRIP BEGINNING AT TOP OF PILE CONTINUOUSLY TO ELEVATION 0.00 MLLW (APPROX. 20').

1/2"x3" STAINLESS STEEL LAG BOLS WITH WASHER 1'-0" OC, TYP BOTH EDGES OF FACING. CENTER SCREWS 2" FROM EDGE.

1.5" CB x 0.75" DEEP 0.563" THROUGH HOLE (TYP).

0.5"x0.5" CHAMFER ALL OUTBOARD EDGES (TYP).



TYP. FENDER SECTION  
NTS

RUB STRIP ELEVATION  
NTS