SPECIFICATION NO. PW22-0059F

15th Street Transient Moorage Dock Replacement

Project No. CIP-00039
CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

REQUEST FOR BIDS, SPECIAL PROVISIONS, BID PROPOSAL AND CONTRACT

FOR

SPECIFICATION NO.
PW22-0059F

15th Street Transient Moorage Dock Replacement

PROJECT NO. CIP-00039

Ian Frank, P.E.
KPFF Consulting Engineers
2407 N 31st St, Suite 100
Tacoma, WA 98407

Darius Thompson, Project Manager
Engineering Division
Public Works Department
Room 544, Tacoma Municipal Building
Tacoma, Washington 98421-2711
CERTIFICATE OF ENGINEER

The technical material and data listed below in these Specifications for the Project "15th St Transient Moorage Dock Replacement" were prepared under the supervision and direction of the undersigned, whose seal, as a Professional Engineer licensed to practice as such is affixed below.

DIVISION 1 – General Requirements

1-01 Definitions and Terms
1-02 Bid Procedures and Conditions
1-03 Award and Execution of Contract
1-04 Scope of Work
1-05 Control of Work
1-06 Control of Material
1-07 Legal Relations and Responsibilities to the Public
1-08 Prosecution and Progress
1-09 Measurement and Payment
1-10 Temporary Traffic Control
CERTIFICATE OF ENGINEER

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DIVISION 2 – EARTHWORK
2-02 Removal of Structures and Obstructions

DIVISION 6 – STRUCTURES
6-01 General Requirements for Structures
6-03 Steel Structures
6-04 Timber Structures
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SPECIAL REMINDER TO ALL BIDDERS

SPECIAL NOTICE TO BIDDERS

**PART I  BID PROPOSAL AND CONTRACT FORMS**

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<td>Bid Proposal</td>
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<td>State Responsibility and Reciprocal Bid Preference Information</td>
</tr>
<tr>
<td>6</td>
<td>Contract</td>
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<td>7</td>
<td>Payment Bond to the City of Tacoma</td>
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<thead>
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<td>3</td>
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<td>Surface Treatments and Pavements (Vacant)</td>
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<td>Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits (Vacant)</td>
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<td>8</td>
<td>Miscellaneous Construction (Vacant)</td>
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<td>Materials</td>
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<td>Appendix A</td>
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<td>Appendix B</td>
<td>Structural Calculations</td>
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<td>Appendix C</td>
<td>Permits- Army Corp of Engineers, City of Tacoma Shoreline Permit and Hydraulic Project Approval</td>
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**PART III  CITY OF TACOMA - LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP) REGULATIONS**

**PART IV  STATE PREVAILING WAGE RATES AND INSURANCE REQUIREMENTS**
REQUEST FOR BIDS PW22-0059F
15th Street Transient Moorage Dock Replacement

Submittal Deadline:  11:00 a.m., Pacific Time, Tuesday, March 15, 2022

Submittals must be received by the City’s Procurement and Payables Division prior to 11:00 a.m. Pacific Time.
For electronic submittals, the City of Tacoma will designate the time of receipt recorded by our email, bids@cityoftacoma.org, as the official time of receipt. This clock will be used as the official time of receipt of all parts of electronic bid submittals.

Submittal Delivery:  Sealed submittals will be received as follows:

<table>
<thead>
<tr>
<th>Method</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>By Email:</strong></td>
<td><a href="mailto:bids@cityoftacoma.org">bids@cityoftacoma.org</a></td>
</tr>
<tr>
<td></td>
<td>Maximum file size: 35 MB. Multiple emails may be sent for each submittal</td>
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<tr>
<td><strong>By Carrier:</strong></td>
<td>City of Tacoma Procurement &amp; Payables Division</td>
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<td></td>
<td>Tacoma Public Utilities</td>
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<td></td>
<td>3628 S 35th Street</td>
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<td>Tacoma, WA 98409</td>
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<td><strong>In Person:</strong></td>
<td>City of Tacoma Procurement &amp; Payables Division</td>
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<td>Tacoma Public Utilities Administration Building North</td>
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<td>Guard House (east side of main building)</td>
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<td></td>
<td>3628 S 35th Street</td>
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<td></td>
<td>Tacoma, WA 98409</td>
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<td><strong>By Mail:</strong></td>
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<td>Tacoma Public Utilities</td>
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<td></td>
<td>PO Box 11007</td>
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<td></td>
<td>Tacoma, WA 98411-0007</td>
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</tbody>
</table>

Bid Opening:  Held virtually each Tuesday at 11AM. Attend via this link or call 1 (253) 215 8782.
Submittals in response to a RFB will be recorded as received. As soon as possible on the day of submittal deadline, preliminary results will be posted to www.TacomaPurchasing.org.

Solicitation Documents:  An electronic copy of the complete solicitation documents may be viewed and obtained at the City’s plan distribution service provider, ARC, 632 Broadway, Tacoma, WA, or by going to http://www.e-arc.com/location/tacoma. Prospective bidders will be required to pay reproduction costs. A list of vendors registered for this solicitation is also available at their website.

Pre-Proposal Meeting:  A pre-proposal meeting will not be held.

Project Scope:  This project will remove and replace approximately 225 linear feet of dock floats and install a new steel gangway ramp utilized for transient moorage along the Thea Foss Waterway.
**Estimate:** $600,000

**Paid Sick Leave:** The City of Tacoma requires all employers to provide paid sick leave as set forth in Title 18 of the Tacoma Municipal Code. For more information, visit [our Minimum Employment Standards Paid Sick Leave webpage.](#)

**Americans with Disabilities Act (ADA Information):** The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing Gail Himes at [ghimes@cityoftacoma.org](mailto:ghimes@cityoftacoma.org), or by calling her collect at 253-591-5785.

**Title VI Information:** “The City of Tacoma” in accordance with provisions of Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. sections 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration of award.

**Additional Information:** Requests for information regarding the specifications may be obtained by contacting Doreen Klaaskate, Senior Buyer by email to [dklaaskate@cityoftacoma.org](mailto:dklaaskate@cityoftacoma.org).

**Protest Policy:** City of Tacoma protest policy, located at [www.tacomapurchasing.org](http://www.tacomapurchasing.org), specifies procedures for protests submitted prior to and after submittal deadline.

Meeting sites are accessible to persons with disabilities. Reasonable accommodations for persons with disabilities can be arranged with 48 hours advance notice by calling 253-502-8468.
SPECIAL REMINDER TO ALL BIDDERS

HEALTH & SAFETY: Be sure to comply with all City of Tacoma health and safety requirements.

1. This project has been deemed to be an essential project by the City of Tacoma and it is anticipated that the contract will be operational during the COVID-19 outbreak. Therefore the contractor shall complete a health and safety plan describing how the contractor will complete the work while combating the COVID-19 spread (social distancing practices) and what Personal Protective Equipment (PPE) will be in place.

PLEASE NOTE: Be sure you have complied with all specifications and requirements and have signed all required documents.

YOUR ATTENTION IS PARTICULARLY CALLED to the following forms, which must be executed in full before the bid is submitted:

1. BID PROPOSAL: The unit prices bid must be shown in the space provided. Check your computations for omissions and errors.

2. SIGNATURE PAGE: To be filled in and executed by a duly authorized officer or representative of the bidding entity. If the bidder is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

3. BID BOND: The Bid Bond must be executed by the person legally authorized to sign the bid, and must be properly signed by the representatives of the surety company unless the bid is accompanied by a certified check. If Bid Bond is furnished, the form furnished by the City must be followed; no variations from the language thereof will be accepted. The amount of the Bid Bond must be not less than 5% of the total amount bid.

4. CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES: Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2017).

5. STATE RESPONSIBILITY AND RECIPROCAL BID PREFERENCE INFORMATION: Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2010).

POST AWARD FORMS EXECUTED UPON AWARD:

A. CONTRACT: Must be executed by the successful bidder.

B. PAYMENT BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.

C. PERFORMANCE BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.

D. CERTIFICATE OF INSURANCE: Shall be submitted with all required endorsements.

E. LEAP UTILIZATION PLAN: Shall be submitted at the Pre-Construction Meeting.

F. GENERAL RELEASE.
**CODE OF ETHICS:** The successful bidder agrees that its violation of the City’s Code of Ethics contained in TMC Chapter 1.46 shall constitute a breach of the contract subjecting the contract to termination.

**LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP):**

The Local Employment and Apprenticeship Training Program (LEAP) has been adopted to counteract economic and social ills, which accompany high rates of unemployment within the City of Tacoma. The Tacoma City Council established the mandatory LEAP program for public works contracts pursuant to Ordinance No. 28520. The primary goal is to provide an opportunity for City of Tacoma residents and Tacoma Public Utilities ratepayers to enter apprenticeship programs, acquire skills, and perform work that will provide living wages.

**LEAP Goals:**

1. **Local Employment Utilization Goal** – Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by residents of the City of Tacoma or economically distressed areas of the Tacoma Public Utilities service area.

2. **Apprentice Utilization Goal** - Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by apprentices who reside in the Tacoma Public Utilities service area.

**NOTE:** The two goals can be satisfied concurrently if the prime contractor utilizes individuals who simultaneously meet the requirements of both goals, such as an apprentice who resides in an economically distressed area of the Tacoma Public Utilities service area.
CITY OF TACOMA
FINANCE/PURCHASING DIVISION
SPECIAL NOTICE TO BIDDERS

Public works and improvement projects for the City of Tacoma are subject to Washington state law and Tacoma Municipal Code, including, but not limited to the following:

I. STATE OF WASHINGTON

A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON

In order to be considered a responsible bidder the bidder must meet the following mandatory state responsibility criteria contained in RCW 39.04.350:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable:
   a. Have Industrial Insurance (workers’ compensation) coverage for the bidder’s employees working in Washington, as required in Title 51 RCW;
   b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
   c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).
5. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW and must designate a person or persons to be trained on these requirements. The training must be provided by the department of labor and industries or by a training provider whose curriculum is approved by the department. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection.

B. RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS:

Effective March 30, 2012, RCW 39.04.380 imposes a reciprocal preference for resident contractors. Any bid received from a non-resident contractor from a state that provides an in-state percentage bidding preference is subject application of a comparable percentage disadvantage.

A non-resident contractor from a state that provides an in-state percentage bidding preference means a contractor that:

1. Is from a state that provides a percentage bid preference to its resident contractors bidding on public works projects, and
2. Does not have a physical office located in Washington at the time of bidding on the City of Tacoma public works project.

The state of residence for a non-resident contractor is the state in which the contractor was incorporated, or if not a corporation, the state in which the contractor’s business entity was formed.
The City of Tacoma will evaluate all non-resident contractors for an out of state bidder preference. If the state of the non-resident contractor provides an in state contractor preference, a comparable percentage disadvantage will be applied to the non-resident contractor's bid prior to contract award. The responsive and lowest and best responsible bidder after application of any non-resident disadvantage will be awarded the contract.

The reciprocal preference evaluation does not apply to public works procured pursuant to RCW 39.04.155, RCW 39.04.280, federally funded competitive solicitations where such agencies prohibit the application of bid preferences, or any other procurement exempt from competitive bidding.

Bidders must provide the City of Tacoma with their state of incorporation or the state in which the business entity was formed and include whether the bidder has a physical office located in Washington.

The bidder shall submit documentation demonstrating compliance with above criteria on the enclosed State Responsibility and Reciprocal Bidder Information form.

C. SUBCONTRACTOR RESPONSIBILITY

1. The Contractor shall include the language of this subcontractor responsibility section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. The requirements of this section apply to all subcontractors regardless of tier.

2. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:

   a. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;

   b. Have a current Washington Unified Business Identifier (UBI) number;

   c. If applicable, have:

      a. Have Industrial Insurance (workers’ compensation) coverage for the bidder’s employees working in Washington, as required in Title 51 RCW;
      b. A Washington Employment Security Department number, as required in Title 50 RCW;
      c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
      d. An electrical contractor license, if required by Chapter 19.28 RCW;
      e. An elevator contractor license, if required by Chapter 70.87 RCW and;

3. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).
II. CITY OF TACOMA

A. SUPPLEMENTAL RESPONSIBILITY CRITERIA – CITY OF TACOMA:

In order to be considered a responsible bidder, the prospective bidder shall have all of the following qualifications set forth in Tacoma Municipal Code 1.06.262:

1. Adequate financial resources or the ability to secure such resources;
2. The necessary experience, stability, organization and technical qualifications to perform the proposed contract;
3. The ability to comply with the required performance schedule, taking into consideration all existing business commitments;
4. A satisfactory record of performance, integrity, judgment and skills; and
5. Be otherwise qualified and eligible to receive an award under applicable laws and regulations.

In addition to the mandatory bidder responsibility criteria listed immediately above, the City may, in addition to price, consider any or all of the following criteria contained in Tacoma Municipal Code Chapter 1.06.262 in determining bidder responsibility:

1. The ability, capacity, experience, stability, technical qualifications and skill of the respondent to perform the contract;
2. Whether the respondent can perform the contract within the time specified, without delay or interference;
3. Integrity, reputation, character, judgment, experience, and efficiency of the respondents, including past compliance with the City’s Ethics Code;
4. Quality of performance of previous contracts;
5. Previous and existing compliance with laws and ordinances relating to contracts or services;
6. Sufficiency of the respondent’s financial resources;
7. Quality, availability, and adaptability of the supplies, purchased services or public works to the particular use required;
8. Ability of the respondent to provide future maintenance and service on a timely basis;
9. Payment terms and prompt pay discounts;
10. The number and scope of conditions attached to the submittal;
11. Compliance with all applicable City requirements, including but not limited to the City’s Ethics Code and its Equity in Contracting and Local Employment and Apprenticeship Training programs;
12. Other qualification criteria set forth in the specification or advertisement that the appropriate department or division head determines to be in the best interests of the City.

The City may require bidders to furnish information, sworn or certified to be true, to demonstrate compliance with the City responsibility criteria set forth above. If the city manager or director of utilities is not satisfied with the sufficiency of the information provided, or if the prospective respondent does not substantially meet all responsibility requirements, any submittal from such respondent must be disregarded.
B. ADDITIONAL SUPPLEMENTAL CRITERIA – NOT APPLICABLE

C. MODIFICATIONS TO SUPPLEMENTAL CRITERIA

Potential bidders may request modifications to the City’s supplemental criteria by submitting a written request to the Purchasing Division via email to bids@cityoftacoma.org no later than 5:00 p.m. Pacific Time, three days prior to the submittal deadline. Please include the Specification No. and Title when submitting such requests. Requests must include justification for why certain criteria should be modified. Requests received after this date and time will not be considered.

The City will respond to a timely submitted request prior to the bid opening date. Changes to the supplemental criteria, if warranted, will be issued by addendum to the solicitation documents and posted to the City’s website for the attention of all prospective bidders.

D. DETERMINATION OF BIDDER RESPONSIBILITY

If the City determines the bidder does not meet the criteria above and is therefore not a responsible bidder, the City shall notify the bidder in writing with the reasons for its determination. If the bidder disagrees, the bidder may appeal the determination in a manner consistent with the City’s Protest Policy. Appeals are coordinated by the Purchasing Division heard by the Procurement and Payables Division manager for contracts less than or equal to $500,000 and by Contracts and Awards Board for contracts greater than $500,000.
PART I

BID PROPOSAL AND CONTRACT FORMS
BID PROPOSAL

SPECIFICATION NO. PW22-0059F

15th Street Transient Moorage Dock Replacement

The undersigned hereby certifies that he/she has examined the location and construction details of work as outlined on the Plans and Specifications for Project No. CIP-00039 and has read and thoroughly understands the Plans and Specifications and contract governing the work embraced in this improvement and the method by which payment will be made for said work, and hereby proposes to undertake and complete the work embraced in this improvement in accordance with said Plans, Specifications and contract and at the following schedule of rates and prices:

NOTE: 1. Unit prices of all items, all extensions and total amount of bid should be shown. Show unit prices in figures only.

2. The notations below the item numbers refer to the specification section where information may be found regarding each contract item. These notations are intended only as a guide and are not warranted to refer to all specification sections where information may be found.

15th Street Transient Moorage Dock Replacement Base Bid
(Nos. 1 to 12)

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
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<td>4 1-09.7</td>
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<tr>
<td>5</td>
<td>Removal of Structure</td>
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<td>SP</td>
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<td>8</td>
<td>Furnish 14-inch Diameter Steel Piles</td>
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<td>Each</td>
<td>$___________</td>
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<td>SP</td>
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<td>9</td>
<td>Driving 14-inch Diameter Steel Piles</td>
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<td>$___________</td>
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<td>Aluminum Gangway</td>
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<td>11</td>
<td>Floats</td>
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<td>Base Bid (Subtotal Items Nos. 1-11)</td>
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<td>12</td>
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<td>Grand Total (Base Bid and Force Account)</td>
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<td></td>
<td>$___________</td>
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All submittals must be in ink or typewritten, executed by a duly authorized officer or representative of the bidding/proposing entity, and received and time stamped as directed in the Request for Bids page near the beginning of the specification. If the bidder/proposer is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

REQUEST FOR BIDS SPECIFICATION NO. PW22-0059F
15th Street Transient Moorage Dock Replacement

The undersigned bidder/proposer hereby agrees to execute the proposed contract and furnish all materials, labor, tools, equipment and all other facilities and services in accordance with these specifications.

The bidder/proposer agrees, by submitting a bid/proposal under these specifications, that in the event any litigation should arise concerning the submission of bids/proposals or the award of contract under this specification, Request for Bids, Request for Proposals or Request for Qualifications, the venue of such action or litigation shall be in the Superior Court of the State of Washington, in and for the County of Pierce.

Non-Collusion Declaration

The undersigned bidder/proposer hereby certifies under penalty of perjury that this bid/proposal is genuine and not a sham or collusive bid/proposal, or made in the interests or on behalf of any person or entity not herein named; and that said bidder/proposer has not directly or indirectly induced or solicited any contractor or supplier on the above work to put in a sham bid/proposal or any person or entity to refrain from submitting a bid/proposal; and that said bidder/proposer has not, in any manner, sought by collusion to secure to itself an advantage over any other contractor(s) or person(s).

Bidder/Proposer’s Registered Name

Address

City, State, Zip

Authorized Signatory E-Mail Address


E-Mail Address for Communications

Signature of Person Authorized to Enter into Contracts for Bidder/Proposer

Date

Printed Name and Title

(Area Code) Telephone Number / Fax Number

State Business License Number
in WA, also known as UBI (Unified Business Identifier) Number

State Contractor’s License Number
(See Ch. 18.27, R.C.W.)

Addendum acknowledgement #1_____ #2_____ #3_____ #4_____ #5_____

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.
Herewith find deposit in the form of a cashier’s check in the amount of $__________________ which amount is not less than 5-percent of the total bid.

SIGN HERE__________________________________

---

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS:
That we, ______________________________________________________________, as Principal, and ______________________________________________________________, as Surety, are held and firmly bound unto the City of Tacoma, as Obligee, in the penal sum of __________________________ dollars, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

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 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______.

PRINCIPAL: _____________________________________________________________________

SURETY: _____________________________________________________________________

______________________________, 20______

Received return of deposit in the sum of $ __________________________
Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (March 1, 2022), that the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

Bidder

Signature of Authorized Official*

Printed Name

Title

Date _______________ City ___________________________ State ___________________________

Check One:

Individual ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

State of Incorporation, or if not a corporation, the state where business entity was formed:

______________________________________________________________________________

If a co-partnership, give firm name under which business is transacted:

______________________________________________________________________________

* If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.
State Responsibility and Reciprocal Bid Preference Information

Certificate of registration as a contractor
(Must be in effect at the time of bid submittal):

Number: ________________________
Effective Date: ________________________
Expiration Date: ________________________

Current Washington Unified Business Identifier
(UBI) Number:

Number: ________________________

Do you have industrial insurance (workers’ compensation)
Coverage nor your employees working in Washington?
☐ Yes  ☐ No  ☐ Not Applicable

Washington Employment Security Department Number

Number: ________________________
☐ Not Applicable

Washington Department of Revenue state excise tax
Registration number:

Number: ________________________
☐ Not Applicable

Have you been disqualified from bidding any public
works contracts under RCW 39.06.010 or 39.12.065(3)?
☐ Yes  ☐ No
If yes, provide an explanation of your
disqualification on a separate page.

Do you have a physical office located in the state of
Washington?
☐ Yes  ☐ No

If incorporated, in what state were you incorporated?
State: _______________ ☐ Not Incorporated

If not incorporated, in what state was your business
entity formed?
State: _______________

Have you completed the training required by RCW
39.04.350, or are you on the list of exempt businesses
maintained by the Department of Labor and Industries?
☐ Yes  ☐ No
This Contract is made and entered into effective this _____ day of Choose an item. 20 , (“Effective Date”) by and between the City of Tacoma, a Municipal Corporation of the State of Washington (“City”), and (“Contractor”).

That in consideration of the mutual promises and obligations hereinafter set forth the Parties hereto agree as follows:

I. Contractor shall fully execute and diligently and completely perform all work and provide all services and deliverables described herein and in the items listed below each of which are fully incorporated herein and which collectively are referred to as “Contract Documents”:

1. Specification No. and together with all authorized addenda.
2. Contractor’s submittal (or specifically described portions thereof) dated submitted in response to Specification No. and .
3. Describe with specific detail and list separately any other documents that will make up the contract (fee schedule, work schedule, authorized personnel etc.) or any other additional items mutually intended to be binding upon the parties.

In the event of a conflict or inconsistency between the terms and conditions contained in this document entitled Contract and any terms and conditions contained the above referenced Contract Documents the following order of precedence applies with the first listed item being the most controlling and the last listed item the least controlling:

1. Contract
2. List remaining Contract Documents in applicable controlling order.

II. The total price to be paid by City for Contracts full and complete performance hereunder may not exceed: , plus applicable sales tax.

III. Contractor agrees to accept as full payment hereunder the amounts specified herein and in Contract Documents, and the City agrees to make payments at the times and in the manner and upon the terms and conditions specified. Except as may be otherwise provided herein or in Contract Documents Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work and providing the services and deliverables required by this Contract.

IV. Contractor acknowledges, and by signing this Contract agrees, that the Indemnification provisions set forth in the controlling Contract Documents, including the Industrial Insurance immunity waiver (if applicable), are totally and fully part of this Contract and, within the context of the competitive bidding laws, have been mutually negotiated by the Parties hereto.

V. Contractor and for its heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the requirements contained herein and in Contract Documents.

VI. It is further provided that no liability shall attach to City by reason of entering into this Contract, except as expressly provided herein.

IN WITNESS WHEREOF, the Parties hereto have accepted and executed, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA: CONTRACTOR:

By: By:

Enter title of dept or div staff w/auth to sign for this $ amt Signature

By: Printed Name

Choose an item.

Form No. SPEC-120A Revised: 06/28/2018
By: 

Director of Finance  

Title 

APPROVED AS TO FORM:

By: 

City Attorney
PAYMENT BOND
TO THE CITY OF TACOMA

That we, the undersigned,

as principal, and

as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of,

$ __________________________ , for the payment whereof Contractor and Surety bind themselves,

their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No.

Specification Title:

Contract No.

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW 39.08, 39.12, and 60.28, including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract shall in any way affect its obligation on this bond, and waivers notice of any changes, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the City, and where required, the Contractor, in accordance with RCW 39.08.030.

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.

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 City as a result of such suit. Venue for any action arising out of or in connection with this bond shall be in Pierce County, WA.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.
One original bond shall be executed, and be signed by the parties’ duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

_____________________________________________________________

By: __________________________________________________________________

Surety:

_____________________________________________________________________

By: __________________________________________________________________

By: __________________________________________________________________

Agent's Name: ___________________________________________________________________

Agent's Address: ___________________________________________________________________
PERFORMANCE BOND
TO THE CITY OF TACOMA

That we, the undersigned,

as principal, and

as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of

$______________________, for the payment whereof Contractor and Surety bind themselves,

their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No.

Specification Title:

Contract No.

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory performance bond shall become null and void, if and when the principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal’s obligations under the Contract and fulfill all terms and conditions of all duly authorized modifications, additions and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increase.

If the City shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgement, shall pay all costs and attorney’s fees incurred by the City in enforcement of its rights hereunder. Venue for any action arising out of in in connection with this bond shall be in Pierce County, Washington.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of “Surety Companies Acceptable in Federal Bonds” as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

One original bond shall be executed, and signed by the parties’ duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

By: ________________________________

Surety:

By: ________________________________

Agent’s Name: ________________________________

Agent’s Address: ________________________________
GENERAL RELEASE TO THE CITY OF TACOMA

The undersigned, named as the contractor for ________ Project / Spec. # ________

between ___________________________ and the City of Tacoma, ________
(Themselves or Itself)

dated ____________________________, 20__, hereby releases the City of Tacoma, its departmental officers and agents from any and all claim or claims whatsoever in any manner whatsoever at any time whatsoever arising out of and/or in connection with and/or relating to said contract, excepting only the equity of the undersigned in the amount now retained by the City of Tacoma under said contract, to-wit the sum of $________.

Signed at Tacoma, Washington this _____ day of ________, 20__.

______________________________
Contractor

By ___________________________

Title _______________________
PART II

SPECIAL PROVISIONS
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INTRODUCTION TO THE SPECIAL PROVISIONS
(*****)

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, 2020 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:
(March 8, 2013 APWA GSP)
(April 1, 2013 WSDOT GSP)
(May 1, 2013 Tacoma GSP)

Also incorporated into the Contract Documents by reference are:
3. City of Tacoma Standard Plans
4. City of Tacoma Traffic Control Handbook

Contractor shall obtain copies of these publications, at Contractor’s own expense.

DESCRIPTION OF WORK
(*****)

This project will remove and replace approximately 225 linear feet of dock floats and install a new steel gangway ramp utilized for transient moorage along the Thea Foss Waterway.

END OF SECTION
1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

(January 4, 2016 APWA GSP)

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

Dates

**Bid Opening Date**
The date on which the Contracting Agency publicly opens and reads the Bids.

**Award Date**
The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

**Contract Execution Date**
The date the Contracting Agency officially binds the Agency to the Contract.

**Notice to Proceed Date**
The date stated in the Notice to Proceed on which the Contract time begins.

**Substantial Completion Date**
The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

**Physical Completion Date**
The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

**Completion Date**
The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

**Final Acceptance Date**
The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”.

All references to the terms “State” or “state” shall be revised to read “Contracting Agency” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.
All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

All references to “final contract voucher certification” shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

Additive
A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate
One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Business Day
A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

Contract Bond
The definition in the Standard Specifications for “Contract Bond” applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

Contract Documents
See definition for “Contract”.

Contract Time
The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

Notice of Award
The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency’s acceptance of the Bid Proposal.

Notice to Proceed
The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

Traffic
Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

This section is supplemented with the following:
(April 15, 2020 Tacoma GSP)

All references to the acronym UDBE” shall be revised to read “DBE/EIC”.
All references in the Standard Specifications to the term “Proposal Bond” shall be revised to read “Bid Bond.”

**Base Bid**
The summation of Bid Item amounts (extensions) in the Bid Forms, excluding Additives, Alternates, Deductives, Force Accounts, and taxes collected separately pursuant to Section 1-07.2.

**Calendar Day**
The time period of 24 hours measured from midnight to the next midnight, including weekends and holidays.

**Change Order**
A written order to the Contractor, issued by the Contracting Agency after execution of the contract, authorizing an addition, deletion, or other revision in the Work, within the scope of the Contract Documents, and establishing the basis of payment and time adjustments, if any, for the Work affected by the change.

**Day**
Unless otherwise specified, a calendar day.

**Deductive**
A supplemental unit of work or group of Bid Items, identified separately in the Bid, which may, at the discretion of the Contract Agency, be deducted from the Base Bid should the Contract Agency choose not to Award the total Base Bid.

**Grand Total Price**
The Grand Total Price of the Contract will include the Base Bid, Additives, Alternates, Deductives, Force Accounts, and taxes collected separately pursuant to Section 1-07.2.

**Standard Specifications**
Divisions One through Nine of the specified edition of the WSDOT “Standard Specifications for Road, Bridge, and Municipal Construction.”

END OF SECTION
1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders
Delete this section and replace it with the following:

1-02.1 Qualifications of Bidder
(January 24, 2011 APWA GSP)

Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

1-02.2 Plans and Specifications
(June 27, 2011 APWA GSP)
Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

<table>
<thead>
<tr>
<th>To Prime Contractor</th>
<th>No. of Sets</th>
<th>Basis of Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced plans (11&quot; x 17&quot;)</td>
<td>6</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Contract Provisions</td>
<td>6</td>
<td>Furnished automatically upon award.</td>
</tr>
<tr>
<td>Large plans (e.g., 22&quot; x 34&quot;)</td>
<td>2</td>
<td>Furnished only upon request.</td>
</tr>
</tbody>
</table>

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

1-02.4(1) General
(August 15, 2016 APWA GSP Option B)

The first sentence of the last paragraph is revised to read:

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business 6 business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.
1-02.4(2) Subsurface Information
(March 8, 2013 APWA GSP)

The second sentence in the first paragraph is revised to read:

The Summary of Geotechnical Conditions and the boring logs, if and when included in the plans sheet for the project, shall be considered as part of the Contract.

1-02.5 Proposal Forms
(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder’s name, address, telephone number, and signature; the bidder’s UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor’s Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

1-02.6 Preparation of Proposal
(July 11, 2018 APWA GSP)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.

5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

Delete the last two paragraphs, and replace them with the following:

If no Subcontractor is listed, the Bidder acknowledges that it does not intend to use any Subcontractor to perform those items of work.

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).
A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

Add the following new section:

1-02.6(1) Recycled Materials Proposal
(January 4, 2016 APWA GSP)

The Bidder shall submit with the Bid, its proposal for incorporating recycled materials into the project, using the form provided in the Contract Provisions.

1-02.7 Bid Deposit
(March 1, 2021 Tacoma GSP)

Delete this section and replace it with the following:

A deposit of at least 5 percent of the total Bid shall accompany each Bid. This deposit may be cash, certified check, cashier’s check, or a proposal bond (Surety bond). Any proposal bond shall be on the Contracting Agency’s form and shall be signed by the Bidder and the Surety. A proposal bond shall not be conditioned in any way to modify the minimum 5 percent required. The Surety shall: (1) be registered with the Washington State Insurance Commissioner, and (2) appear on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner.

The failure to furnish a Bid deposit of a minimum of 5 percent shall make the Bid nonresponsive and shall cause the Bid to be rejected by the Contracting Agency.

If submitting your bid electronically, a scanned version of the original bid bond or cashier’s check shall accompany your electronic bid submittal. The original bid bond or cashier’s check shall be sent to the Contracting Agency and received by the Contracting Agency within 7 calendar days of the bid opening or the bidder may be deemed non-responsive.

Original bid bonds or cashier’s check will be delivered to:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
P.O. Box 11007
Tacoma, WA 98411-0007

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.
1-02.9 Delivery of Proposal

(* *****)

Delete this section and replace it with the following:

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery.

Electronic Proposals shall be submitted to the City via email to bids@cityoftacoma.org, with the Project Name as stated in the Call for Bids noted on the subject line of the email, or as otherwise required in the Bid Documents, to ensure proper handling and delivery. All electronic documents shall be in PDF format.

The Bidder shall submit to the Contracting Agency a signed “Certification of Compliance with Wage Payment Statutes” document where the Bidder under penalty of perjury verifies that the Bidder is in compliance with responsible bidder criteria in RCW 39.04.350 subsection (1) (g), as required per Section 1-02.14. The “Certification of Compliance with Wage Payment Statutes” document shall be received with the Bid Proposal.

1-02.10 Withdrawing, Revising, or Supplementing Proposal

(* *****)

Delete this section and replace it with the following:

After submitting an electronic Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

A. The Bidder submits a written request signed by an authorized person and emails it to bids@cityoftacoma.org, and

B. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and

C. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

The Bidder’s written request to revise or supplement a Bid Proposal must be accompanied by the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

1-02.12 Public Opening of Proposals

(March 1, 2021 Tacoma GSP)

Proposals will be opened and publicly read via webcast at the time indicated in the call for Bids unless the Bid opening has been delayed or canceled.

This public bid opening will be held via webinar. Please use the link below or on the Request for Bids page to join the webinar:

https://us02web.zoom.us/j/83250498294

Preliminary and final bid results are posted at www.TacomaPurchasing.org.
Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
   a. The Bidder is not prequalified when so required;
   b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
   c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
   d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
   e. A price per unit cannot be determined from the Bid Proposal;
   f. The Proposal form is not properly executed;
   g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
   h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
   i. The Bidder fails to submit written confirmation from each DBE firm listed on the Bidder's completed DBE Utilization Certification that they are in agreement with the bidder's DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
   j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
   k. The Bidder fails to submit a DBE Bid Item Breakdown form, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
   l. The Bidder fails to submit DBE Trucking Credit Forms, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
   m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
   n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

2. A Proposal may be considered irregular and may be rejected if:
   a. The Proposal does not include a unit price for every Bid item;
   b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
   c. Receipt of Addenda is not acknowledged;
   d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
   e. If Proposal form entries are not made in ink.
A Bidder will be deemed not responsible if:

1. the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or
2. evidence of collusion exists with any other Bidder or potential Bidder. Participants in collusion will be restricted from submitting further bids; or
3. the Bidder, in the opinion of the Contracting Agency, is not qualified for the work or to the full extent of the bid, or to the extent that the bid exceeds the authorized prequalification amount as may have been determined by a prequalification of the Bidder; or
4. an unsatisfactory performance record exists based on past or current Contracting Agency work or for work done for others, as judged from the standpoint of conduct of the work; workmanship; or progress; affirmative action; equal employment opportunity practices; termination for cause; or Disadvantaged Business Enterprise, Minority Business Enterprise, or Women’s Business Enterprise utilization; or
5. there is uncompleted work (Contracting Agency or otherwise) which in the opinion of the Contracting Agency might hinder or prevent the prompt completion of the work bid upon; or
6. the Bidder failed to settle bills for labor or materials on past or current contracts, unless there are extenuating circumstances acceptable to the Contracting Agency; or
7. the Bidder has failed to complete a written public contract or has been convicted of a crime arising from a previous public contract, unless there are extenuating circumstances acceptable to the Contracting Agency; or
8. the Bidder is unable, financially or otherwise, to perform the work, in the opinion of the Contracting Agency; or
9. there are any other reasons deemed proper by the Contracting Agency; or
10. the Bidder fails to meet the Project-specific supplemental bidder responsibility criteria listed in the Special Reminder; or
11. The bidder fails to meet the EIC requirements as described in Section 1-02.6.

As evidence that the Bidder meets the bidder responsibility criteria above, the apparent two lowest Bidders must submit to the Contracting Agency within 24 hours of the bid submittal deadline, documentation (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with all applicable responsibility criteria, including all documentation specifically listed in the supplemental criteria. The Contracting Agency reserves the right to request such documentation from other Bidders as well, and to request further documentation as needed to assess bidder responsibility.

The basis for evaluation of Bidder compliance with these supplemental criteria shall be any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) which any reasonable owner would rely on for determining such compliance, including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from owners for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.
If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within 24 hours of receipt of the Contracting Agency’s determination by presenting its appeal to the Contracting Agency. The Contracting Agency will consider the appeal before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the final determination.

1-02.15 Pre Award Information
(August 14, 2013 APWA GSP)

Revise this section to read:

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.
7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

END OF SECTION
1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids
(January 23, 2006 APWA GSP)

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder’s unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

1-03.1(1) Identical Bid Totals
(January 4, 2016 APWA GSP)

Revise this section to read:

After opening Bids, if two or more lowest responsive Bid totals are exactly equal, then the tie-breaker will be the Bidder with an equal lowest bid, that proposed to use the highest percentage of recycled materials in the Project, per the form submitted with the Bid Proposal. If those percentages are also exactly equal, then the tie-breaker will be determined by drawing as follows: Two or more slips of paper will be marked as follows: one marked “Winner” and the other(s) marked “unsuccessful”. The slips will be folded to make the marking unseen. The slips will be placed inside a box. One authorized representative of each Bidder shall draw a slip from the box. Bidders shall draw in alphabetic order by the name of the firm as registered with the Washington State Department of Licensing. The slips shall be unfolded and the firm with the slip marked “Winner” will be determined to be the successful Bidder and eligible for Award of the Contract. Only those Bidders who submitted a Bid total that is exactly equal to the lowest responsive Bid, and with a proposed recycled materials percentage that is exactly equal to the highest proposed recycled materials amount, are eligible to draw.

1-03.2 Award of Contract
(March 27, 2003 Tacoma GSP)

All references to 45 calendar days shall be revised to read 60 calendar days.

1-03.3 Execution of Contract
(October 1, 2005 APWA GSP)

Revise this section to read:

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.
Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond
(July 23, 2015 APWA GSP)

Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
   a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
   b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety’s officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).
Add the following new section:

1-03.5 Failure to Execute Contract
(April 15, 2020 Tacoma GSP)

The first sentence is revised to read:

Failure to return the insurance certification and bond with the signed contract as required in Section 1-03.3, or failure to provide Equity In Contracting (EIC) information if required in the contract, or failure or refusal to sign the Contract, or failure to register as a contractor in the state of Washington shall result in forfeiture of the bid bond or deposit of this Bidder

END OF SECTION
1-04  SCOPE OF THE WORK

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

(March 13, 2012  APWA GSP)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. Amendments to the Standard Specifications,
6. Standard Specifications,
7. Contracting Agency’s Standard Plans or Details (if any), and
8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

END OF SECTION
1-05 CONTROL OF WORK

1-05.3 Working Drawings
(January 13, 2011 Tacoma GSP)

This section is deleted in its entirety and replaced with the following:

1-05.3 Submittals

The Contractor shall not install materials or equipment, which require submittals, until reviewed by the Contracting Agency.

The Contractor shall submit four (4) copies to the Engineer of all submittals required by the Contract Documents, unless otherwise required in these Special Provisions. This includes, but is not limited to:

- Shop Drawings/Plans
- Product Data
- Samples
- Reports
- Material Submittals (Ref. 1-06)
- Progress Schedules (Ref. 1-08.3)
- Guarantees/Warranties (Ref. 1-05.10)

The Engineer will return one (1) copy to the Contractor.

1-05.3(1) Submittal Schedule

In conformance with section 1-08.3, the progress schedule shall be submitted and reviewed prior to commencing any work.

No claim will be allowed for damages or extension of time resulting from rejection of a submittal or the requirement of resubmittals as outlined by this section.

The Engineer’s review will be completed as quickly as possible, but may require up to ten (10) working days from the date the submittals or resubmittals are received until they are sent to the Contractor. If more than ten (10) working days are required for the Engineer’s review of any individual submittal or resubmittal, an extension of time will be considered in accordance with Section 1-08.8.

1-05.3(2) Submittal Procedures

Contractor submittals shall be in accordance with the following:

The Contractor shall thoroughly review each submittal for dimensions, quantities, and details of the material or item shown. The Contractor shall review each submittal and note any errors, omissions, or deviations with the Contract Documents. The Contractor shall accept full responsibility for the completeness of each submittal.

Each submittal shall have a unique number assigned to it, and the transmittals shall be sequentially numbered. The numbering of resubmittals shall meet the requirements of
Section 1-05.3(4). On each page, indicate the page number, and total number of pages in each submittal.

Each submittal shall indicate the intended use of the item in the work. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and data shall be indicated on all drawings and other descriptive data.

Each submittal should be transmitted with the “Submittal Transmittal Form” found at the end of this section. Upon request, an electronic copy of the Submittal Transmittal Form will be made available to the Contractor.

In lieu of utilizing the Submittal Transmittal Form, the Contractor may display the following information on each submittal, in a clear space on the front of the submittal:

- Project Name: 15th Street Transient Moorage Dock Replacement
- Project Specification Number: PW22-0059F
- Project No. CIP-00039
- Submittal Date
- Description of Submittal
- Sequential, unique submittal number.
- Related Specification Section and/or plan sheet
- The following statement: “This document has been detail-checked for accuracy of content and for compliance with the Contract documents. The information contained herein has been fully coordinated with all involved Subcontractors.”
- Printed or typed name and signature of Contractor.

When submitting product data, the Contractor shall modify drawings to delete any information not applicable to the project and add information that is applicable to the project. The Contractor shall mark copies of printed material to clearly identify the pertinent materials, products or models.

Samples submitted shall be of sufficient size and quantity to clearly illustrate functional characteristics of product or material and full range of colors available. Field samples and mock-ups, where required, shall be erected at the project site where directed by the Engineer.

The Contractor shall notify the Engineer, in writing at time of submission, of deviations in submittals from requirements of the Contract documents.

The City shall not be responsible for delays in reviewing submittals not submitted in accordance with these specifications.

1-05.3(3) Engineer’s Review of Submittals

The Engineer’s review of drawings and data submitted by the Contractor will cover only general conformity with the Contract drawings and specifications. The Engineer’s review of submittals shall not relieve the Contractor from responsibility for errors, omissions, deviations, or responsibility for compliance with the Contract documents. Review of a separate item does not constitute review of an assembly in which the item functions.
When the submittal or resubmittal is marked “REVIEWED”, or “REVIEWED WITH COMMENTS”, no additional copies need to be furnished. The Contractor shall comply with any comments on the return submittal.

1-05.3(4) Resubmittals

When a submittal is marked “AMEND AND RESUBMIT” or “REJECTED, SEE REMARKS,” the Contractor shall make the corrections as noted and instructed by the Engineer and resubmit four (4) copies. The Contractor shall not install material or equipment that has received a review status of “AMEND AND RESUBMIT” or REJECTED, SEE REMARKS”.

When corrected copies are resubmitted, the Contractor shall in writing direct specific attention to all revisions and shall list separately any revision made other than those called for by the Engineer on previous submittals. Resubmittals shall bear the number of the original submittal followed by a letter (A, B, etc.) to indicate the sequence of the resubmittal.

The Contractor shall revise returned submittals as required and resubmit until final review is obtained.

The Contractor shall verify that all exceptions previously noted by the Engineer have been accounted for.

1-05.3(5) Submittal Requirements by Section

The following is a summary of submittal requirements. This summary is not inclusive of all submittal requirements. The Contractor shall review each individual section in the applicable provisions or specifications, as noted below, for specific requirements.

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1-05.4 Conformity With and Deviations from Plans and Stakes

Add the following two new sub-sections:

1-05.4(1) Roadway and Utility Surveys
(October 1, 2005 APWA GSP)

The Engineer shall furnish to the Contractor one time only all principal lines, grades, and measurements the Engineer deems necessary for completion of the work. These shall generally consist of one initial set of:

1. Slope stakes for establishing grading;
2. Curb grade stakes;
3. Centerline finish grade stakes for pavement sections wider than 25 feet; and
4. Offset points to establish line and grade for underground utilities such as water, sewers, and storm drains.

On alley construction projects with minor grade changes, the Engineer shall provide only offset hubs on one side of the alley to establish the alignment and grade.

1-05.4(2) Bridge and Structure Surveys
(October 1, 2005 APWA GSP)

For all structural work such as bridges and retaining walls, the Contractor shall retain as a part of Contractor’s organization an experienced team of surveyors.

The Contractor shall provide all surveys required to complete the structure, except the following primary survey control which will be provided by the Engineer:

1. Centerline or offsets to centerline of the structure.
2. Stations of abutments and pier centerlines.
3. A sufficient number of bench marks for levels to enable the Contractor to set grades at reasonably short distances.
4. Monuments and control points as shown in the Plans.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

- Stationing: +/- .01 foot
- Alignment: +/- .01 foot (between successive points)
- Superstructure Elevations: +/- .01 foot (from plan elevations)
- Substructure Elevations: +/- .05 foot (from plan elevations)

During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.
1-05.7 Removal of Defective and Unauthorized Work  
(October 1, 2005 APWA GSP)  
Supplement this section with the following:  

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.  

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.  

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remediing defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor’s unauthorized work.  

No adjustment in Contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency’s rights provided by this Section.  

The rights exercised under the provisions of this section shall not diminish the Contracting Agency’s right to pursue any other avenue for additional remedy or damages with respect to the Contractor’s failure to perform the work as required.  

1-05.11 Final Inspection  
Delete this section and replace it with the following:  

1-05.11 Final Inspections and Operational Testing  
(October 1, 2005 APWA GSP)  

1-05.11(1) Substantial Completion Date  

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor’s request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.  

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the
Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer
does not consider the work substantially complete and ready for its intended use, the
Engineer will, by written notice, so notify the Contractor giving the reasons therefore.

Upon receipt of written notice concurring in or denying substantial completion, whichever is
applicable, the Contractor shall pursue vigorously, diligently and without unauthorized
interruption, the work necessary to reach Substantial and Physical Completion. The
Contractor shall provide the Engineer with a revised schedule indicating when the
Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial
Completion Date and the Contractor considers the work physically complete and ready for
final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of Contract time because of a delay in the performance of the work attributable to the exercise of the Engineer’s right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Contracting Agency, in writing, of the date upon which the work was considered physically complete. That date shall constitute the Physical Completion Date of the Contract, but shall not imply acceptance of the work or that all the obligations of the Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first
class operating condition. Equipment, electrical controls, meters, or other devices and
equipment to be tested during this period shall be tested under the observation of the
Engineer, so that the Engineer may determine their suitability for the purpose for which they
were installed. The Physical Completion Date cannot be established until testing and
corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to
successfully complete operational testing, shall be included in the unit Contract prices
related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a
manufacturer’s guaranties or warranties furnished under the terms of the Contract.

Add the following new section:

1-05.12(1) One-Year Guarantee
(March 8, 2013 APWA GSP)

The Contractor shall return to the project and repair or replace all defects in workmanship
and material discovered within one year after Final Acceptance of the Work. The
Contractor shall start work to remedy any such defects within 7 calendar days of receiving
Contracting Agency’s written notice of a defect, and shall complete such work within the
time stated in the Contracting Agency’s notice. In case of an emergency, where damage
may result from delay or where loss of services may result, such corrections may be made
by the Contracting Agency’s own forces or another Contractor, in which case the cost of
corrections shall be paid by the Contractor. In the event the Contractor does not
accomplish corrections within the time specified, the work will be otherwise accomplished
and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for
correcting all defects in workmanship and materials in the corrected work for one year after
acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the
Contractor’s work comply with the requirements of the Contract or any other legal rights or
remedies of the Contracting Agency.

1-05.13 Superintendents, Labor and Equipment of Contractor
(August 14, 2013 APWA GSP)

Delete the sixth and seventh paragraphs of this section.

1-05.15 Method of Serving Notices
(March 25, 2009 APWA GSP)

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All
correspondence from the Contractor constituting any notification, notice of protest, notice of
dispute, or other correspondence constituting notification required to be furnished under the
Contract, must be in paper format, hand delivered or sent via mail delivery service to the
Project Engineer’s office. Electronic copies such as e-mails or electronically delivered
copies of correspondence will not constitute such notice and will not comply with the
requirements of the Contract.

Add the following new section:

1-05.16 Water and Power
(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power
and water necessary for the performance of the work, unless the Contract includes power
and water as a pay item.
SUBMITTAL TRANSMITTAL FORM

15th Street Transient Moorage Dock Replacement
Project Number CIP-00039
Specification No. PW22-0059F

ATTN: Construction Division Date: _____________________

Submittal Number __________

Specification Number __________ Bid Item No. __________

Submittal Description __________________________________________

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Transmitted: ☐ Submittals (Product Data) for information only.

☐ Submittals for review and comment.

Remarks: __________________________________________________________

_______________________________________________________________

Certify Either A or B:

☐ A. This document has been detail-checked for accuracy of content and for compliance with the Contract documents (no exceptions). The information contained herein has been fully coordinated with all involved Subcontractors.

☐ B. This document has been detail-checked for accuracy of content and for compliance with the Contract documents except for the attached deviations. The information contained herein has been fully coordinated with all involved Subcontractors.

Certified By: ____________________________

__________________________
Signature

END OF SECTION
1-06 CONTROL OF MATERIAL

1-06.1 Approval of Materials Prior To Use
(Sepember 15, 2010 Tacoma GSP)

The first sentence is revised to read:

All materials and equipment shall be submitted for review in accordance with section 1-05.3 of these special provisions.

For aggregates, the Contractor shall notify the Engineer of all proposed aggregates. The Contractor shall use the Aggregate Source Approval (ASA) Database.

All equipment, materials, and articles incorporated into the permanent Work:

1. Shall be new, unless the Special Provisions or Standard Specifications permit otherwise;
2. Shall meet the requirements of the Contract and be approved by the Engineer;
3. May be inspected or tested at any time during their preparation and use; and
4. Shall not be used in the Work if they become unfit after being previously approved.

1-06.1(1) Qualified Products List (QPL)
This section is revised in its entirety to read:

QPL’s are not accepted by the City.

1-06.1(2) Request for Approval of Material (RAM)
This section is deleted in its entirety.

1-06.6 Recycled Materials
(January 4, 2016 APWA GSP)

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor’s report shall be provided on DOT form 350-075 Recycled Materials Reporting.

END OF SECTION
1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed
(October 1, 2005 APWA GSP)

Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor’s care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor’s care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor’s plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor’s performance does not, and shall not, be intended to include review and adequacy of the Contractor’s safety measures in, on, or near the project site.

1-07.2 State Taxes
(January 6, 2015 TACOMA GSP)

Supplement this section with the following:

Washington State Department of Revenue Rules 170 and 171 shall apply as shown in the Proposal and per Section 1-07.2 of the WSDOT and APWA Standard Specifications for Road, Bridge, and Municipal Construction.

1-07.2 State Taxes
Delete this section, including its sub-sections, in its entirety and replace it with the following:

1-07.2 State Tax
(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.
The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply 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. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.
1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.4 Sanitation

1-07.4(2) Health Hazards

Section 1-07.4(2) is supplemented with the following:

(May 13, 2020)

COVID-19 Health and Safety Plan (CHSP)

The Contractor shall prepare a project specific COVID-19 health and safety plan (CHSP). The CHSP shall be prepared and submitted as a Type 2 Working Drawing prior to beginning physical work. The CHSP shall be based on the most current State and Federal requirements. If the State or Federal requirements are revised, the CHSP shall be updated as necessary to conform to the current requirements.

The Contractor shall update and resubmit the CHSP as the work progresses and new activities appear on the look ahead schedule required under Section 1-08.3(2)D. If the conditions change on the project, or a particular activity, the Contractor shall update and resubmit the CHSP. Work on any activity shall cease if conditions prevent full compliance with the CHSP.

The CHSP shall address the health and safety of all people associated with the project including State workers in the field, Contractor personnel, consultants, project staff, subcontractors, suppliers and anyone on the project site, staging areas, or yards.

COVID-19 Health and Safety Plan (CHSP) Inspection

The Contractor shall grant full and unrestricted access to the Engineer for CHSP Inspections. The Engineer (or designee) will conduct periodic compliance inspections on the project site, staging areas, or yards to verify that any ongoing work activity is following the CHSP plan. If the Engineer becomes aware of a noncompliance incident either through a site inspection or other means, the Contractor will be notified immediately (within 1 hour). The Contractor shall immediately remedy the noncompliance incident or suspend all or part of the associated work activity. The Contractor shall satisfy the Engineer that the noncompliance incident has been corrected before the suspension will end.

1-07.5 Environmental Regulations

Section 1-07.5 is supplemented with the following:

The City of Tacoma is in the process of obtaining the Army Corp of Engineers Permit and the Hydraulic Project Approval (permit thru the Department of Fish and Wildlife). The contractor must have these permits in hand prior to working in the waterway. The permits will be obtained by July 15, 2022 when the work limitation period ends as describe in 1-08.6.
1-07.9 Wages

1-07.9(5) Required Documents
(March 1, 2004 Tacoma GSP)
The first sentence of the third paragraph is revised to read:
Weekly certified payrolls shall be submitted for the Contractor and all lower tier subcontractors or agents.

This section is supplemented with the following:
Where fringe benefits are paid in cash, certified payrolls shall include the fringe benefit dollar amount paid to each employee for each employee classification.

Where fringe benefits are paid into approved plans, funds, or programs, the amount of the fringe benefits shall be identified in the “Benefit Distribution” section of the Certified Payroll Affirmation form.

1-07.15(1) Spill Prevention, Control and Countermeasures Plan
(February 9, 2011 Tacoma GSP)
This section is revised to read:
The Contractor shall prepare a project-specific spill prevention, control, and countermeasures plan (SPCC Plan) that will be used for the duration of the project. The Contractor shall submit the plan to the Project Engineer no later than the date of the preconstruction conference. No on-site construction activities may commence until the Contracting Agency accepts an SPCC Plan for the project.

The SPCC Plan shall address all fuels, petroleum products, hazardous materials, and other materials as defined in Chapter 447 of the WSDOT Environmental Procedures Manual (M 31-11). Occupational safety and health requirements that may pertain to SPCC Plan implementation are contained in, but not limited to, WAC 296-824 and WAC 296-843.

Implementation Requirements
The SPCC Plan shall be updated by the Contractor throughout project construction so that the written plan reflects actual site conditions and practices. The Contractor shall update the SPCC Plan at least annually and maintain a copy of the updated SPCC Plan on the project site. All project employees shall be trained in spill prevention and containment, and they shall know where the SPCC Plan and spill response kits are located and have immediate access to them.

If hazardous materials are encountered or spilled during construction, the Contractor shall do everything possible to control and contain the material until appropriate measures can be taken. The Contractor shall supply and maintain spill response kits of appropriate size within close proximity to hazardous materials and equipment.

The Contractor shall implement the spill prevention measures identified in the SPCC Plan before performing any of the following:

1. Placing materials or equipment in staging or storage areas.
2. Refueling, washing, or maintaining equipment.


SPCC Plan Element Requirements

The SPCC Plan shall set forth the following information in the following order:

1. Responsible Personnel
   Identify the name(s), title(s), and contact information, including a 24/7 emergency contact number, for the personnel responsible for implementing and updating the plan, including all spill responders.

2. Spill Reporting
   List the names and telephone numbers of the Federal, State, and local agencies the Contractor shall notify in the event of a spill. The City of Tacoma contact will be the Wastewater Treatment Plant Operations number at 253.591.5595 and the City Source Control Spill Response number at 253.502.2222.

3. Project and Site Information
   Describe the following items:
   A. The project Work.
   B. The site location and boundaries.
   C. The drainage pathways from the site, including both stormwater and sanitary conveyance pathways.
   D. Nearby waterways and sensitive areas and their distances from the site.

4. Potential Spill Sources
   Describe each of the following for all potentially hazardous materials brought or generated on-site (including materials used for equipment operation, refueling, maintenance, or cleaning):
   A. Name of material and its intended use.
   B. Estimated maximum amount on-site at any one time.
   C. Location(s) (including any equipment used below the ordinary high water line) where the material will be staged, used, and stored and the distance(s) from nearby waterways and sensitive areas.
   D. Decontamination location and procedure for equipment that comes into contact with the material.
   E. Disposal procedures.
   F. Include a Material Safety Data Sheet (MSDS) for each potentially hazardous material.

5. Pre-Existing Contamination
   Describe any pre-existing contamination and contaminant sources (such as buried pipes or tanks) in the project area that are described in the Contract documents. Identify equipment and work practices that will be used to prevent the release of contamination.

6. Spill Prevention and Response Training
   Describe how and when all personnel (including refueling Contractors and Subcontractors) will be trained in spill prevention, containment, and response in accordance with the Plan. Describe how and when all spill responders will be trained in accordance with WAC 296-824.
7. Spill Prevention
   Describe the following items:

   A. Spill response kit contents and location(s).
   B. Security measures for potential spill sources.
   C. Secondary containment practices and structures for all containers to handle the
      maximum volume of potential spill of hazardous materials.
   D. Methods used to prevent stormwater from contacting hazardous materials.
   E. Site inspection procedures and frequency.
   F. Equipment and structure maintenance practices.
   G. Daily inspection and cleanup procedures that ensure all equipment used below the
      ordinary high water line is free of all external petroleum-based products.
   H. Refueling procedures for equipment that cannot be moved from below the ordinary
      high water line.

8. Spill Response
   Outline the response procedures the Contractor will follow for each scenario listed
   below. Include a description of the actions the Contractor shall take and the specific on-
   site spill response equipment that shall be used to assess the spill, secure the area,
   contain and eliminate the spill source, and clean up and dispose of spilled and
   contaminated material.

   Response procedures shall be outlined in the Spill Response section and shall include
   notification to the City of Tacoma Wastewater Treatment Plant Operations number at
   253.591.5595 and the City Source Control Spill Response number at 253.502.2222.

   A. A spill of each type of hazardous material at each location identified in 4, above.
   B. Stormwater that has come into contact with hazardous materials.
   C. Drainage pathways from the site, including both stormwater and sanitary
      conveyance pathways.
   D. A release or spill of any unknown pre-existing contamination and contaminant
      sources (such as buried pipes or tanks) encountered during project Work.
   E. A spill occurring during Work with equipment used below the ordinary high water
      line.

   If the Contractor will use a Subcontractor for spill response, provide contact information
   for the Subcontractor under item 1 (above), identify when the Subcontractor will be
   used, and describe actions the Contractor shall take while waiting for the Subcontractor
   to respond.

9. Project Site Map
   Provide a map showing the following items:

   A. Site location and boundaries.
   B. Site access roads.
   C. Drainage pathways from the site.
   D. Nearby waterways and sensitive areas.
   E. Hazardous materials, equipment, and decontamination areas identified in 4, above.
   F. Pre-existing contamination or contaminant sources described in 5, above.
   G. Spill prevention and response equipment described in 7 and 8, above.
10. Spill Report Forms  
Provide a copy of the spill report form(s) that the Contractor will use in the event of a release or spill.

Payment  
Payment will be made in accordance with Section 1-04.1 for the following Bid item when it is included in the Proposal:

“SPCC Plan,” lump sum.

When the written SPCC Plan is accepted by the Contracting Agency, the Contractor shall receive 50-percent of the lump sum Contract price for the plan.

The remaining 50-percent of the lump sum price will be paid after the materials and equipment called for in the plan are mobilized to the project.

The lump sum payment for “SPCC Plan” shall be full pay for:

1. All costs associated with creating the accepted SPCC Plan.
2. All costs associated with providing and maintaining the on-site spill prevention equipment described in the accepted SPCC Plan.

3. All costs associated with providing and maintaining the on-site standby spill response equipment and materials described in the accepted SPCC Plan.

4. All costs associated with implementing the spill prevention measures identified in the accepted SPCC Plan.

5. All costs associated with updating the SPCC Plan as required by this Specification.

As to other costs associated with releases or spills, the Contractor may request payment as provided for in the Contract. No payment shall be made if the release or spill was caused by or resulted from the Contractor’s operations, negligence, or omissions.

1-07.16 Protection and Restoration of Property

1-07.16(1) Private/Public Property  
(January 13, 2011 Tacoma GSP)  
This section is supplemented with the following:

Stockpiling in City of Tacoma right-of-way or on existing or new improvements shall not occur unless approved by the Engineer. All stockpile sites shall be restored to as good or better condition.

The Contractor shall contact all property owners and tenants in the vicinity of this project, via newsletter/mailing, a minimum of one (1) week prior to start of construction. The Contractor shall submit a draft of the property owner notification prior to posting/mailing.

The newsletter/mailing shall advise the owners and tenants of the construction schedule and indicate the Contractor’s name, contact person, and telephone numbers.
1-07.17 Utilities and Similar Facilities
(March 7, 2017 Tacoma GSP)

The first paragraph is supplemented with the following:

Public and private utilities or their Contractors will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocations, replacement, or construction will be done within the time for performance of this project. The Contractor shall coordinate their work with such adjustment, relocation, or replacement of utility work. This may require the Contractor to phase their work in a manner that will allow for the utility work.

The Contractor shall coordinate their work with all utilities and other organizations, which have to adjust or revise their facilities within the project area. These may include, but are not limited to:

- City of Tacoma Light Division, Contact: Kevin Kelley, phone: (253) 502-8229
- City of Tacoma Water Division, Contact: Kimberly Baard, phone: (253) 396-3317
- City of Tacoma Traffic Division, Signal/Streetlight Shop, phone: (253) 591-5287
- CLICK! Network, Contact: Ken Mathes, phone: (253) 502-8851
- Puget Sound Energy, Contact: Mike Klapperich, Electric, phone: (253) 313-3790 OR Amber Uhls, Gas, phone: (253) 476-6137
- CenturyLink, Contact: Eric Charity, phone: (206) 733-8871
- Comcast, Contact: Todd Gallant, phone: (253) 878-4955
- AT&T Broadband Information Services, Contact: Dan McGeough, phone: (425) 896-9830
- Level 3 Communications, Level3NetworkRelocations@Level3.com
- One-Number Locator Service “One Call System” telephone 1-800-424-5555
- Verizon, Contact: David Lacombe, phone: (206) 305-5366
- MCI Metro Utility, Contact: Brad Landis, phone: (425) 229-3123

If the Contractor plans to excavate or trench within ten (10) feet of any utility pole or other electric or water utility structure owned by the City of Tacoma, the Contractor shall contact the City of Tacoma, Department of Public Utilities, Field Coordinator, telephone number 502-8044, and arrange for an inspection before proceeding. The Contractor shall perform, at the Contractor’s expense, such additional work as is required to protect the pole or structure from subsidence. The Contractor may be directed to suspend work at the site of any such excavation until such utility structures are adequately protected.

Garbage, recycling, and yard waste pick up within the project limits is on check City of Tacoma website.

1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

(******)

See attached, “City of Tacoma, Insurance Requirements for Contracts” included in Part III of these specifications.
Revise the third sentence of the second paragraph to read:

Accessibility to existing or temporary pedestrian push buttons shall not be impaired; if approved by the Contracting Agency activating pedestrian recall timing or other accommodation may be allowed during construction.

1-07.23(1) Construction under Traffic
(March 1, 2004 Tacoma GSP)

This section is supplemented with the following:

The following special traffic requirements shall be adhered to during all phases of construction:

Dock Street shall remain fully open to vehicular and pedestrian traffic at all times.

EXCEPTION:

To minimize the disruption to access to adjacent properties, and to Pierce Transit operations, the lane closure area shall be limited to that area of active work and necessary for appropriate lane closure tapers. The Contractor shall stage work to maintain access to and egress from all properties at all times.

A safe pedestrian access shall be provided at all times through the project area. All lane closures shall be coordinated with the adjacent businesses, other contractors working within the project vicinity, local transit agencies and the City.

Where, in the opinion of the Engineer, parking is a hazard to through traffic or to the construction work, parking may be restricted either entirely or during the time when it creates a hazard. Signs for restricting parking shall be approved by the City and placed by the Contractor. The Contractor shall be responsible for and shall maintain all such signs. The replacement of signs restricting parking shall be as approved by the Engineer.

The Contractor shall notify all property owners and tenants of detours, street and alley closures, or other restrictions that may interfere with their access. Notification shall be at least twenty-four (24) hours in advance for residential property, and at least forty-eight (48) hours in advance for commercial property.

Emergency traffic, such as police, fire, and disaster units, shall be provided access at all times. In addition, the Contractor shall coordinate Contractor activities with all disposal firms and transit bus service that may be operating in the project area.

If street closures or lane restrictions, not provided for in the Specifications, are allowed subsequent to award of the contract, an equitable adjustment of the Contract amount shall be negotiated.

It is the intent of the Contract to effectively prevent the deposition of debris on streets in areas of public traffic or where such debris may be transported into a drainage system. When construction operations are such that debris from the work is deposited on the
streets, the Contractor shall, at a minimum, remove on a daily basis any deposits or debris which may accumulate on the roadway surface. Should daily removal be insufficient to keep the streets clean, the Contractor shall perform removal operations on a more frequent basis. If the Engineer determines that a more frequent cleaning is impractical or if the Contractor fails to keep the streets free from deposits and debris resulting from the work, the Contractor shall, upon order of the Engineer, provide facilities for and remove all deposits from the tires or between wheels before trucks or other equipment will be allowed to travel over paved streets. Should the Contractor fail or refuse to clean the streets in question, or the trucks or equipment in question, the Engineer may order the work suspended at the Contractor’s risk until compliance with Contractor’s obligations is assured, or the Engineer may order the streets in question cleaned by others and such costs incurred by the City in achieving compliance with these contract requirements, including cleaning of the streets, shall be deducted from moneys due or to become due the Contractor on monthly estimate. The Contractor shall have no claim for delay or additional costs should the Engineer choose to suspend the Contractor’s work until compliance is achieved.

1-07.23(2) Construction and Maintenance of Detours
(April 1, 2018 Tacoma GSP)
This section is supplemented with the following:

Detour signing during any allowed road closures shall be in accordance with Detour Plans, when included in the Contract Documents. When plans are not included in the Contract Documents, the Contractor shall submit plans for detours in accordance with the "Manual on Uniform Traffic Control Devices (MUTCD)". In addition, where the Contractor believes an alternate plan will safely and adequately maintain vehicular and pedestrian traffic, the Contractor may submit alternate plans to those for traffic control and detours required by MUTCD or contract documents. Such alternate plans must comply with the MUTCD and shall be in writing and submitted to the Engineer at least fifteen (15) days in advance of their intended use. In general, detouring of arterial traffic must be accomplished on streets designated as City Arterials. Detouring of arterial traffic on non-arterial streets will not be allowed. The acceptance of any alternate plan shall be entirely at the discretion of the Engineer and the Contractor shall have no claim by reason of a plan being rejected or modified, nor shall there be any additional payment by reason of using a substitute plan.

The Contractor shall notify the Engineer three (3) working days in advance of implementation of any street closures/detours allowed under the Contract. Advance notice signing shall be placed a minimum of three (3) working days prior to implementation of any street closure/detour.

A minimum of three (3) working days prior to any street closure, the Contractor shall notify all entities below:

Tacoma Fire Dept. (253-591-5775)
Tacoma Police Dept. (253-591-5932)
LESA Communications Center (253-798-4721 - Opt.#2)
Tacoma Public Schools Transportation Office (253-571-1853)
Pierce Transit (253-581-8001)
Tacoma Environmental Services Solid Waste (253-591-5544)
Tacoma Public Works Engineering Division (253-591-5500)
Tacoma Public Works Streets and Grounds (253-591-5495)
Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor’s construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor’s attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

END OF SECTION
1-08.0(1) Preconstruction Conference
(May 25, 2006 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited.
The purpose of the preconstruction conference will be:
1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To establish normal working hours for the work;
5. To review safety standards and traffic control; and
6. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:
1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

Add the following new section:
1-08.0(2) Hours of Work
(March 3, 2008 Tacoma GSP)

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the work.

If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to the Engineer no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 9:00 p.m. and 7:00 a.m. during weekdays and between the hours of 9:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency’s noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor’s operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.
Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency or Engineer. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non Federal aid projects; considering the work performed on Saturdays and holidays as working days with regards to the contract time; and considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, survey crews; personnel from the Contracting Agency’s material testing lab; inspectors; and other Contracting Agency employees when in the opinion of the Engineer, such work necessitates their presence.

Add the following new section:

1-08.0(3) Reimbursement for Overtime Work of Contracting Agency Employees
(September 29, 2009 Tacoma GSP)

Where the Contractor elects to work on a Saturday, Sunday, or holiday, or longer than an 8-hour work shift on a regular working day, as defined in the Standard Specifications, such work shall be considered as overtime work. On all such overtime work, city staff may be required at the discretion of the Engineer. In such case, the Contracting Agency may deduct from amounts due or to become due to the Contractor for the costs in excess of the straight-time costs for employees of the Contracting Agency required to work overtime hours.

The Contractor by these specifications does hereby authorize the Engineer to deduct such costs from the amount due or to become due to the Contractor.

1-08.1 Subcontracting - D/M/WBE Reporting
(September 29, 2009 Tacoma GSP)

The eighth paragraph is revised to read:

On all projects funded with Contracting Agency funds only, the Contractor shall certify to the actual amounts paid Disadvantaged, Minority, or Women’s Business Enterprise firms that were used as subcontractors, lower tier subcontractors, manufacturers, regular dealers, or service providers on the contract. This certification shall be submitted to the Engineer, on the form provided by the Engineer, 20 calendar days after physical completion of the contract.

1-08.1 Subcontracting
(May 17, 2018 APWA GSP, Option B)

Delete the eighth paragraph.

Revise the ninth paragraph to read:

The Contractor shall comply with the requirements of RCW 39.04.250, 39.76.011, 39.76.020, and 39.76.040, in particular regarding prompt payment to Subcontractors. Whenever the Contractor withholds payment to a Subcontractor for any reason including disputed amounts, the Contractor shall provide notice within 10 calendar days to the
Subcontractor with a copy to the Contracting Agency identifying the reason for the withholding and a clear description of what the Subcontractor must do to have the withholding released. Retainage withheld by the Contractor prior to completion of the Subcontractors work is exempt from reporting as a payment withheld and is not included in the withheld amount. The Contracting Agency’s copy of the notice to Subcontractor for deferred payments shall be submitted to the Engineer concurrently with notification to the Subcontractor.

1-08.3(2)A Type A Progress Schedule
(March 13, 2012 APWA GSP)
Revise this section to read:

The Contractor shall submit 6 copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.4 Prosecution of Work
Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work
(July 23, 2015 APWA GSP)

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

1-08.5 Time for Completion
(March 16, 2016 Tacoma GSP)
Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized
working days have been used, charging of working days will cease. Each week the
Engineer will provide the Contractor a statement that shows the number of working days:
(1) charged to the contract the week before; (2) specified for the physical completion of the
contract; and (3) remaining for the physical completion of the contract. The statement will
also show the nonworking days and any partial or whole day the Engineer declares as
unworkable. Within 10 calendar days after the date of each statement, the Contractor shall
file a written protest of any alleged discrepancies in it. To be considered by the Engineer,
the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and
amount of time disputed. By not filing such detailed protest in that period, the Contractor
shall be deemed as having accepted the statement as correct. If the Contractor is
approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of
the week in which a 4-10 shift is worked would ordinarily be charged as a working day then
the fifth day of that week will be charged as a working day whether or not the Contractor
works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract
after all the Contractor’s obligations under the contract have been performed by the
Contractor. The following events must occur before the Completion Date can be
established:
1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by
law, to allow the Contracting Agency to process final acceptance of the contract. The
following documents must be received by the Project Engineer prior to establishing a
completion date:
   a. Certified Payrolls (per Section 1-07.9(5)).
   b. Material Acceptance Certification Documents
   c. Reports of Amounts Credited as EIC Participation, as required by the Contract
      Provisions.
   d. Final Contract Voucher Certification
   e. Copies of the approved “Affidavit of Prevailing Wages Paid” for the Contractor and
      all Subcontractors
   f. Property owner releases per Section 1-07.24

This section is supplemented with the following:
(March 1, 2004 Tacoma GSP)

This project shall be physically completed within 60 working days.

1-08.6 Suspension of Work

Section 1-08.6 is supplemented with the following

(January 2, 2018)

The Contract will be suspended effectively the date of the notice to proceed following the
preconstruction meeting for the Contracting Agency to obtain necessary Environmental
Regulation permits and for the following timing limitations:
Timing Limitations:

To protect juvenile salmonids at the job site, work below the ordinary high-water line must occur from July 15 through December 31 and January 1 through February 15 of any year.

The City also is in the process of securing the Army Corp of Engineers and the Hydraulic Project Approval. The City anticipates receiving these permits Spring 2022. These permits will be sent to the award-winning contractor when made available from the different agencies.

The Contract time may be suspended for procurement of critical materials (Procurement Suspension). In order to receive a Procurement Suspension, the Contractor shall within 21 calendar days after execution by the Contracting Agency, place purchase orders for all materials deemed critical by the Contracting Agency for physical completion of the contract. The Contractor shall provide copies of purchase orders for the critical materials. Such purchase orders shall disclose the purchase order date and estimated delivery dates for such critical material.

The Contractor shall show procurement of the materials listed below as activities in the Progress Schedule. If the approved Progress Schedule indicates that the materials procurement are critical activities, and if the Contractor has provided documentation that purchase orders are placed for the critical materials within the prescribed 21 calendar days, then contract time will be suspended upon physical completion of all critical work except that work dependent upon the below listed critical materials:

<table>
<thead>
<tr>
<th>Corresponding Bid Item</th>
<th>Equipment</th>
<th>Manufacturer/Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>#8</td>
<td>Furnish 14-inch Diameter</td>
<td>Any</td>
</tr>
<tr>
<td></td>
<td>Steel Piles</td>
<td></td>
</tr>
</tbody>
</table>

Charging of contract time will begin upon delivery of the critical materials to the Contractor, the Contractor obtaining the Environmental Regulation permits from the Contracting Agency, and meeting the timing limitations.

All costs resulting from the Suspension of Work defined in these Specifications shall be at the Contractor’s expense. This includes, and is not limited to, any material cost increases for construction sequencing from this Suspension of Work.

END OF SECTION
1-09 MEASUREMENT AND PAYMENT

1-09.2(1) General Requirements for Weighing Equipment
(July 23, 2015 APWA GSP, Option 1)

Revise the third paragraph to read:

Scale Operations – “Contractor-provided scale operations” are defined as operations where a scale is set up by the Contractor specifically for the project and most, if not all, material weighed on the scale is utilized for Contract Work. In this situation, the Contractor shall provide, set up, and maintain the scales necessary to perform this Work. The Contracting Agency will provide a person to operate the project scale, write tickets, perform scale checks and prepare reports.

1-09.2(1) General Requirements for Weighing Equipment
(July 23, 2015 APWA GSP, Option 2)

Revise item 4 of the fifth paragraph to read:

4. Test results and scale weight records for each day’s hauling operations are provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027, Scaleman’s Daily Report, unless the printed ticket contains the same information that is on the Scaleman’s Daily Report Form. The scale operator must provide AM and/or PM tare weights for each truck on the printed ticket.

1-09.6 Force Account
(October 10, 2008 APWA GSP)

Supplement this Section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor’s total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by Engineer.

(January 13, 2011 Tacoma GSP)

Item #3 of this Section is supplemented with the following:

The Contractor shall submit a comprehensive summary list of all equipment anticipated to be used on the project and their associated AGC/WSDOT Equipment Rental Rates. The list shall include the contractor’s equipment number, make, model, year, operation rate, standby rate, applicable attachments and any other applicable information necessary to determine the applicable rates in accordance with this section. In addition, the contractor shall submit an Equipment Watch rate sheet (www.equipmentwatch.com) for each piece of equipment in the summary list. Access to the Equipment Watch web site is available at the City’s Construction Management Office.
1-09.9 Payments
(March 13, 2012 APWA GSP)

Delete the first four paragraphs and replace them with the following:

The basis of payment will be the actual quantities of Work performed according to the
Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum bid items at the
Preconstruction Conference, to enable the Project Engineer to determine the Work
performed on a monthly basis. A breakdown is not required for lump sum items that
include a basis for incremental payments as part of the respective Specification. Absent a
lump sum breakdown, the Project Engineer will make a determination based on information
available. The Project Engineer's determination of the cost of work shall be final.

Progress payments for completed work and material on hand will be based upon progress
estimates prepared by the Engineer. A progress estimate cutoff date will be established at
the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor
commences the work, and successive progress estimates will be made every month
thereafter until the Completion Date. Progress estimates made during progress of the work
are tentative, and made only for the purpose of determining progress payments. The
progress estimates are subject to change at any time prior to the calculation of the final
payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of
   work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump sum
   breakdown for that item, or absent such a breakdown, based on the Engineer's
determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or
   other storage area approved by the Engineer.
4. Change Orders — entitlement for approved extra cost or completed extra work as
determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of progress payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the
   Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or
an admission by the Contracting Agency that any work has been satisfactorily completed.
The determination of payments under the contract will be final in accordance with Section
1-05.1.
This section is supplemented with the following:

(January 6, 2015 Tacoma GSP)

Breakdowns of all lump sum items shall be provided for all lump sum items and shall include all costs for labor, equipment, materials, and taxes (as applicable) associated with the lump sum item. Washington State Department of Revenue Rules 170 and 171 apply to lump sum items per Section 1-07.2 of the WSDOT State Amendments to the Standard Specifications.

Stockpiled Material - The point of acceptance of stockpiled material for payment and quality shall be at the time of incorporation into the contract.

1-09.9(1) Retainage

(May 10, 2006 Tacoma GSP)

The fourth paragraph is supplemented with the following:

6. A “General Release to the City of Tacoma” is on file with the Contracting Agency.

7. A release has been obtained from the City of Tacoma’s City Clerk’s Office.

1-09.13(3)A Administration of Arbitration

(October 1, 2005 APWA GSP)

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency’s headquarters are located. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the contract as a basis for decisions.

END OF SECTION
1-10  TEMPORARY TRAFFIC CONTROL

1-10.1(2) Description
(July 22, 2019 Tacoma GSP)

The first sentence of the fourth paragraph is revised to read:

The Contractor shall keep lanes, on-ramps, and off-ramps open to traffic at all times except when Work requires closure(s) that have been requested and approved in accordance with section 1-10.2(2).

The third sentence of the fourth paragraph is revised to read:

Approved lane and ramp closures shall be for the minimum time required to complete the Work.

This section is supplemented with the following:

Only uniformed off-duty police officers shall be used to control traffic when it is necessary to override or provide traffic control at signalized intersections. Off-duty City of Tacoma Police Department officers are preferred within the jurisdiction of the Tacoma PD, and the Contractor shall grant the Tacoma PD the “first right of refusal” by contacting the Tacoma PD first as stated below.

The City will make all necessary temporary adjustments to existing traffic signals and traffic signal activators.

Existing signs shall not be removed until the Contractor has provided for temporary measures sufficient to safeguard and direct traffic after existing signs have been removed. Preservation of temporary traffic control and street name signs shall be the sole responsibility of the Contractor.

As the work progresses and permits, temporarily relocated and/or removed traffic signs shall be reset in their permanent location. Permanent signs and other traffic control devices damaged or lost by the Contractor shall be replaced or repaired at the Contractor’s expense.

Traffic Control Management
1-10.2(1) General
(January 3, 2017)

Section 1-10.2(1) is supplemented with the following:

Only training with WSDOT TCS card and WSDOT training curriculum is recognized in the State of Washington. The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
Section 1-10.3 is supplemented with the following:

1-10.3(3)A Construction Signs
(January 11, 2006 Tacoma GSP)

The fifth paragraph is revised to read:

Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the Engineer
deems to be unacceptable while their use is required on the project shall be replaced by
the Contractor at their expense.

1-10.3(3)C Portable Changeable Message Sign
(August 4, 2010 Tacoma GSP)

This section is supplemented with the following:

Portable Changeable Message Signs shall be required on arterials streets where
construction occurs for durations longer than seven (7) calendar days. Signs shall be solar
charged and programmable. Signs shall be provided a minimum of seven (7) calendar
days prior to construction and remain through the duration of the construction on the
arterial street. Signs shall be provided on each end of the arterial street construction zone
notifying oncoming traffic of the construction conditions. All costs associated with providing
and maintain the signs for the required duration shall be included in the proposal item,
"Project Temporary Traffic Control", per lump sum

1-10.4(2) Item Bids with Lump Sum for Incidentals
(January 11, 2006 Tacoma GSP)

This section is supplemented with the following:

No unit of measure will apply to the position of traffic control manager and it will be
considered included in other unit contract prices in the Bid Proposal.

1-10.5(2) Item Bids with Lump Sum for Incidentals
(January 11, 2006 Tacoma GSP)

This section is supplemented with the following:

END OF SECTION
2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.3(4) Removal of Timber Piles
This section is added
Existing timber piles shall be removed, and if needed broken off below the mudline in accordance with the permit documents.

2-02.3(4) Disposal
This section is added
All demolished materials shall be disposed in accordance with regulations.

END OF SECTION
6.01.12 Final Cleanup

The second paragraph is revised to read:

The Contractor is advised that after the Structure is complete, the City’s representative will perform an Inspection of the Structure. The purpose of the Inspection is to field verify certain Contract details, to provide a base-line condition assessment of the Structure, and to identify any potential maintenance features.
6-03 STEEL STRUCTURES
(xxxx)

6-03.3(5) Mill Orders and Shipping Statements

In the first paragraph, add a second sentence to read:

Unreadable mill certificates will be rejected.

6-03.3(7) Shop Plans

Revise the first two paragraphs to read:

Before fabricating any steel, the Contractor shall submit electronic shop drawings directly to the City of Tacoma for approval.

Delete the third paragraph.

Revise the sixth paragraph to read:

The City will forward reviewed copies to the Contractor. If any sheets require correction, the Contractor shall correct and resubmit them in the quantities required above. No material shall be fabricated until the Engineer has approved the plans.

The first sentence in the ninth paragraph is revised to read:

Before physical completion of the project, the Contractor shall furnish the City one (1) set of reproducible copies of the as-built shop plans.

The last sentence in the ninth paragraph is revised to read:

Alternatively, the shop drawings may be provided in an electronic format with the approval of the Engineer.

6-03.3(11) Workmanship and Finish

The first sentence in the first paragraph is revised to read:

Workmanship and finish shall be first-class, equaling the best practice in modern fabrication shops.

6-03.3(25) Welding and Repair Welding

Add this new paragraph at the end of this section:

Repair all galvanizing removed or damaged during welding in accordance with ASTM A 780. Repair material shall be a zinc-based alloy solder (zinc rod). Application shall be in accordance with ASTM A 780 and rod manufacturer's recommendations. Minimum applied thickness shall be 12 mils.

6-03.3(25)A Welding Inspection

The second paragraph is revised to read:

Nondestructive testing in addition to visual inspection shall be performed by the Contractor.
Verification Inspection
The Contractor shall engage an independent testing agency to perform verification inspection and testing on all field and shop welding. Field and shop welding shall be considered all welding not performed at the manufacturing plant. The manufacturing plant for steel pipe piles shall be the place where individual pile lengths or sheets are fabricated or rolled.

The independent testing agency shall perform testing and inspection of 100 percent of all (field and shop) butt splice and complete-joint-penetration (CJP) welds and 10 percent of all (field and shop) partial-joint-penetration (PJP) welds. All Fillet welds shall be 100 percent visually inspected. The independent testing agency shall have a verification inspector with current certification as an AWS-Certified Welding Inspector (CWI) in accordance with the provision of AWS QC1.

The inspection procedures, techniques, and methods shall be in accordance with AWS D1.1, Section 6.

All (field and shop) butt splice and CJP welds shall be 100 percent tested by the following methods:

1. Full-time visual inspection.
2. Ultrasonic Inspection: ASTM E 164.

All (field and shop) butt splice welds shall meet the acceptance criteria set forth in AWS D1.1, Section 6, for cyclically-loaded tubular connections in tension.

All (field and shop) PJP welds shall have a minimum of 10 percent of the total length tested by the following methods:

1. Full-time visual inspection.

All (field and shop) PJP welds shall meet the acceptance criteria set forth in AWS D1.1, Section 6.

Records verifying that the above tests were performed and that all tested welds met the acceptance criteria shall be provided to the City.

All costs associated with verification inspection by the independent testing agency shall be incidental to furnishing steel pipe piles and included in the associated bid items.

Additional Inspection
At the City's option, additional inspection may be performed by the City's Welding Inspector. This inspection may include:

1. Full-time visual inspection.
2. Ultrasonic Inspection: ASTM E 164.
3. Liquid Penetrant Inspection: ASTM E 165.
4. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion will not be accepted.
5. Radiographic Inspection: ASTM E 94 and ASTM E 142; minimum quality level 
   "2-2T."

The City's Welding Inspector will have the authority to determine compliance with the above 
acceptance criteria and order repairs or replacements of unacceptable welds at no 
additional cost to the City. All welds whether made at the manufacturing plant, or in the 
shop or field will be subject to the acceptance of the City's Welding Inspector.

6-03.3(25)A1 Visual Inspection
This section is deleted.

6-03..3(25)A2 Radiographic Inspection
This section is deleted.

6-03..3(25)A3 Ultrasonic Inspection
This section is deleted.

6-03.3(25)A4 Magnetic Particle Inspection
This section is deleted.

6-03.4 Measurement
This section is replaced with the following:

There will be no separate measurements for Structural Steel.

Measurement for furnishing and installing "Esplanade Steel Railing" and "Steel Bar 
Grating" shall be in separate lump sum quantities.

6-03.5 Payment
This section is replaced with the following

Measurement and payment for steel pipe piles shall be in accordance with Section 6- 
05, "Piling."

"Dock Steel Railing," lump sum.

The lump sum contract price for "Dock Steel Railing" shall be full pay to furnish, 
fabricate, transport to site and install.

Any other steel items not covered by a specific Bid item and payment is not otherwise 
provided; the steel item shall be considered as incidental to the construction and all 
costs for the item shall be included in an associated Bid item.

END OF SECTION
6-04.3(2) Workmanship
In the first sentence remove the word "bridge."

6-04.4 Measurement
This section shall be revised to read as follows:

Measurement for "Timber and Lumber (treated)" shall be in a lump sum quantity.

6-04.5 Payment
Sub-section No. 1 is revised to read:

1. "Timber and Lumber (treated)," lump sum.

The second paragraph is revised to read as follows:

Where no item for structural metal is included in the Proposal, full pay for furnishing and placing metal parts shall be included in the unit Contract lump sum price for "Timber and Lumber (treated)."

END OF SECTION
6-05 PILING
(xxxx)

6-05.1 Description
This section is replaced with the following:

This Work consists of furnishing and driving 14 3/8-inch steel piles in the quantity and
length the Contract requires. This Work also includes cutting off or splicing piles when
required. In furnishing and driving piles, the Contractor shall comply with the requirements
of this section, the Contract, and the Engineer.

6-05.3(1) Piling Terms
In the seventeenth paragraph, replace the words "Pile Driving Refusal." with the following
words:

Practical Refusal.

6-05.3(2) Ordering Piling
Replace this entire section with the following:

Minimum order lengths for steel piles shall include the length of the pile from cutoff
elevation to tip elevation plus a 5-foot over-drive allowance. All piles purchased on the
basis of the Plans but not used in the finished structure shall become the property of the
City. The Contractor shall deliver these as the Engineer directs.

6-05.3(9)A Pile Driving Equipment Approval
The first sentence of the second paragraph shall be revised to read:

The Contractor shall submit a wave equation analysis for all pile driving systems used to
drive piling.

The fourth sentence of the second paragraph shall be revised to read:

The wave equation analysis shall verify that the pile driving system proposed does not
produce stresses greater than 90-percent of the yield stress for steel piles.

6-05.3(9)B Pile Driving Equipment Minimum Requirements
Replace this section with the following:

The Contractor shall be responsible for selection of the appropriate hammer to drive the
piles.

It is anticipated that the piles can be installed to the design tip elevation with a hydraulic
impact hammer with a maximum rated energy of 40,000 to 83,000 foot-pounds per blow, or
a vibratory hammer with 900 to 1,300 in-lb eccentric moment. If an impact hammer is
selected, or required due to pile driving conditions, a hydraulic hammer or a pneumatic
hammer with a similar rated energy is required. Diesel impact hammers will not be
permitted. The contractor shall be prepared to advance piles past obstructions or obstacles
by removing and relocating piles as directed by the engineer or by overdriving piles with an
impact hammer.
Delete existing sections 6-05.3(9)C through 6-05.3(15)B in their entirety and replace with the following:

6-05.3(10) Pile Driving – General

Drive all piling to the tip elevation and bearing capacity as shown on the Plans, or to practical refusal. To the greatest extent practical, pile driving shall be performed during tide levels that allow piles to be driven above the waterline. All pile driving activity shall comply with the requirements of project permits.

When using a vibratory hammer, the size or capacity of the hammer shall be as recommended by the manufacture for the total weight and the character of the soil information to be penetrated. The hammer must provide for maintaining a rigid connection between the hammer and the pile.

When using an impact hammer, use fixed lead pile drivers when driving all piling. The use of hanging or swinging leads will not be allowed unless they are so constructed that they can be held in a fixed position during the driving operations. Leads shall be of sufficient length so that the use of a follower will not be necessary.

The Contractor shall mark the piles at one foot intervals beginning at the tip and the length shall be clearly marked at each five foot interval. At all times during driving, the marked portion of the pile shall remain visible to the Engineer.

6-05.3(12) Driving Tolerances:

Drive piles within the following maximum tolerances: (any pile deviated in final position more than the limits specified will be automatically rejected.)

Location: 6-inches from locations indicated for center of the pile cross section of each pile.

Plumb: Maintain 1-inch in 10′-0″ from the vertical, or a maximum of 4-inches over the length of the pile. Measure when the pile is above ground in the leads prior to driving.

6-05.3(13) Rejected Piles

Any pile driven out of alignment beyond the maximum tolerances, or found to be, in the judgment of the Engineer, damaged beyond reasonable repair, shall be rejected and another pile shall be driven at no additional cost to the City. The rejected pile may or may not be extracted. If, in the sole opinion of the Engineer, damage to adjacent piling or structures would result from the pile’s extraction, it will remain in place and another pile shall be driven in a position designated by the Engineer.

Remedial work required to complete the pile installation or to accommodate piles misaligned shall be performed as directed by the Engineer. Such remedial work may include, but is not limited to, installation of additional piles, removal and reinstallation of piles, installation of additional reinforcement in the structure, or construction of additional concrete framing. No additional payment will be made for such remedial work.

Lateral pulling of pileheads to proper location will not be allowed.
6-05.3(14) Steel Piling

6-05.3(14)A Handling

Move steel piling by the use of "bridles," "strong backs," or other appropriate rigging that will prevent permanent deformations.

6-05.3(14)B Driving

Drive steel piling with the impact hammer, or vibratory hammer approved by the Engineer. Carefully plumb the leads and the pile before driving. Take care during driving to prevent any tendency of the piles to twist or rotate. Pile driving hammer to be selected by Contractor, shall be suitable for driving the piling without damage to the indicated tip elevations and bearing capacity. When using an impact hammer, the hammer shall be equipped with a suitable "driving head," "driving cap," or "helmet" fabricated of forged or cast steel, or approved alternate material shaped to fit the pile being driven and the hammer being used.

6-05.3(14)C Cutoff

Cut off steel piling at the elevations indicated on the Plans. Fresh head all piles after driving. Use templates or other devices after the piling has been located in its final alignment to ensure that the cutoff will be true and level.

6-05.3(15)A Handling

The method of storing and handling shall be such as to eliminate the danger of fracture by impact or bending stresses in curing or transporting the piles from the forms and into the leads. Move piles by means of suitable bridles or slings attached to the pile at the approved lifting points. Store all piles on level ground on timber blocking so that the axis of each pile is maintained in a straight line. Locate the blocking of successive tiers directly over the blocking below.

6-05.3(15)B Temporary Bracing

Provide, as approved by the Engineer, temporary bracing necessary to hold the piles in alignment and to prevent pile damage after driving until permanent connections to the structure are made.

6-05.3(15)C Driving

When using an impact hammer, protect the heads of all piling during driving by caps of approved design, with a cushion located between the hammer and the pile head. Driving helmet shall fit loosely around the head to allow free pile rotation.

Secure piles against lateral movement during driving by leads of a design approved by the Engineer.

6-05.3(15)D Accessories

Driving Helmets and Cushion Blocks: Use a steel driving helmet or cap including a pile cushion between top of pile and driving helmet or cap to prevent impact damage to pile. Use a
driving helmet or cap and pile cushion combination capable of protecting pile head, minimizing
energy absorption and dissipation, and transmitting hammer energy uniformly over top of pile. Provide driving helmet or cap that fit sufficiently loose around top of pile so that pile may be free to rotate without binding within driving helmet. The pile cushions shall be a composite of plywood and softwood. The cushion thickness shall be determined by the Contractor. The minimum cushion thickness shall be 16-inches. A new cushion shall be used for each pile. The cushion shall be replaced during driving operations as necessary to protect the pile. Allow a minimum of one cushion replacement per pile.

Hammer Cushion or Capblock: Use a hammer cushion or capblock between driving helmet or cap and hammer ram as determined by wave equation analysis. Use steel plates at top and bottom of capblock. Replace cushion or capblock when it becomes highly compressed, charred or burned or becomes spongy or deteriorated in any manner. Do not use small wood block, wood chips, rope or other materials that cause loss of hammer energy.

Hammer Assembly: The hammer assembly and leads will be considered inadequate when any one of the following conditions occurs:

1. If the hammer supplied is not capable of supplying at least 85 percent of the maximum rated energy specified by the manufacturer.

2. If in the Engineer's opinion, excessive downtime (repair and/or maintenance) occurs that affects the schedule.

6-05.3(15)F Pile Cut-Off

The pile cut-off length shall be defined as the length from the top of the as-driven pile to the cut-off elevation as shown on the Plans.

Pile cut-off elevations are shown on the Plans. The piles shall be cut off to a flat surface perpendicular to the pile axis as indicated on the Plans. The pile cut off procedure shall minimize pile damage.

6-05.3(15)G Lateral Support of Piles

Pile heads shall be supported against lateral movement after driving until they are supported by the permanent structure. Lateral pulling of piles during or after installation will not be permitted. The Contractor shall survey the previously driven pile positions in the immediate vicinity of pile driving to determine if pile driving induced slope movements are significant and are causing previous driven piles to shift. If the previously driven piles are shifting by more than four inches from their installed position, the Contractor shall immediately stop pile driving operations and notify the Engineer.

6-05.3(15)I Delays

Delays/interruption in driving a pile to the required tip elevation shall be avoided to prevent potential setup and/or refusal.
6-05.3(16) As-Driven Pile Location

Plan location of piling as driven shall be surveyed by the Contractor and a written as-driven location plan of each pile shall be submitted to the Engineer within 72-hours of completion of pile driving operations.

6-05.3(17) Pile Installation Acceptance Criteria

The Engineer may reject a pile if any one of the following conditions exists:

1. Pile damaged in handling or driving. A damaged pile shall be defined as any pile exhibiting deformation on one or more faces of the pile.

2. Driven location of a pile deviates by more than the specified tolerances.

3. Pile is out of plumb or required batter by more than the specified tolerance.

If a pile is rejected by the Engineer, the Contractor shall, at the sole discretion of the Engineer, either:

1. Remove and replace the rejected pile with a new pile furnished and driven in its place.

2. Furnish a new pile and drive it adjacent to the rejected pile. The rejected pile may be cut off at mudline at the Engineer’s option.

3. Have the pile cap redesigned and modified to accommodate the rejected pile.

4. Repair the pile by method approved by the Engineer. The City is not obligated to accept the repair and, if in the opinion of the Engineer, the repair method is unsuitable, the Contractor shall furnish and install a new pile under option 1 or 2 above.

All costs associated with any of the above remedial action shall be the sole responsibility of the Contractor including, but not limited to: supply of new pile, required extra materials, labor, and engineering fees. Engineering fees include design modifications to the pile cap carried out by a City-approved Engineer and any inspection and design review by the City or the City's Consultants.

Schedule impacts associated with any of the above remedial actions are to be the responsibility of the Contractor. The Contractor shall perform any required Work acceleration to return to the accepted Schedule at no additional cost to the City.

Obstructions: Where obstructions including riprap make it impossible to drive piles in the location indicated and to the final penetration, the Contractor shall resort to methods to install piles as required, including spudding, or other means as directed by the Engineer, at no extra cost to the City. Jetting shall not be used.
6-05.4 Measurement
This section is replaced with the following:

Measurement for "Furnish 14-inch Diameter Steel Piles" will be the number actually furnished as the Contract requires.

Measurement for "Driving 14-inch Diameter Steel Piles" will be the number of piles driven in place.

6-05.5 Payment
This section is replaced with the following:

Payment will be made in accordance with Section 1-04.1, for each of the following Bid items that are included in the Proposal.

"Furnish 14-inch Diameter Steel Piles," per each:
The unit Contract price for "Furnish 14-inch Diameter Steel Piles" shall be full pay for furnishing the piling specified, including welding, galvanizing and delivery to the project site.

"Driving 14-inch Diameter Steel Piles," per each:
The unit Contract price for "Driving 14-inch Diameter Steel Piles," shall be full pay for driving the piling to the ultimate bearing capacity and/or penetration specified and cutting the top of pile to its required cutoff elevation.

END OF SECTION
6-21 ALUMINUM GANGWAY

The following section is added

6-21.1 Description

The extent and location of the aluminum gangway ramps is indicated on the Drawings. The work includes one Bidder-Designed, furnished and installed 80 foot gangway ramp. The work includes the connections to the support structures, skid guides at the floats and transition plates at each end of the gangway.

6-21.2 Materials

6-21.3 Construction Requirements

6-21.3(1) Reference Standards

The design of the aluminum gangway ramp shall comply with the following codes and standards, except as otherwise shown or specified:

3. International Building Code, 2018
4. Americans with Disabilities Act Accessibility Guidelines (ADAAG)

6-21.3(2) Submittals

Submit the following in accordance with Section 01 33 10, Submittals:

1. List of a minimum of five installations within the past 5 years demonstrating experience required.
2. The Contractor shall submit design calculations and drawings for the aluminum gangway. The design calculations shall include attachment of the gangway to the upper support structures. Design calculations shall be completed under the responsible charge of a licensed Structural Engineer in the State of Washington, and shall be stamped and sealed accordingly.
3. Shop drawings shall be submitted for fabrication of gangway ramp superstructures, moving brackets, skids, transition plates, hand railings, and miscellaneous anchoring components. Shop drawings shall be unique drawings prepared to illustrate the specific portion of the work to be done.
4. Manufacturer's standard forms requiring only filling in of blank spaces will not be acceptable unless all non-applicable information is deleted and such standard forms are modified to reflect exact requirements and conditions unique to the project. All relative design information such as member sizes, gangway reactions and general design notes shall be clearly specified on the drawings.
5. Submit mill certificates indicating compliance regarding strength and metallurgy of the aluminum materials selected by the gangway designer.
6. Submit welding procedures and technical literature for both shop and field welding.
7. Fabrication shall not be started until the shop drawings and other submitted data are reviewed by the Engineer.
8. The Contractor shall furnish a written manufacturer’s guarantee that the gangway ramp systems furnished are free of defects in material and workmanship and agrees to
remove and replace, without cost to the Owner, any materials which develop defects within five (5) calendar years from the date of acceptance of the project as complete by the Owner.

6-21.3(3) Quality Assurance

1. Welding operators shall be AWS certified welders, each of whom shall submit satisfactory evidence of experience and skill in welding aluminum with the kind of welding to be used in the work and who have demonstrated the ability to make quality uniform welds of the type required.
2. The Owner will provide inspection service to the satisfaction of the Engineer. Tests conducted for the sole benefit of the Contractor, or before a product is approved, shall be at the Contractor’s expense.
3. Gangway ramps purchased from an independent manufacturer shall be from a source that has been manufacturing aluminum gangway ramps for a minimum of 5 years of a size similar to those specified. The manufacturer shall be approved by the Engineer prior to bid opening.
4. Potential product sources, Contractor shall verify source references to assure they meet the requirements of these specifications. The contractor shall assume full responsibility for conformance with these specifications.
   a. Mantle Industries, Blaine, WA, (360) 332-5276
   b. Topper Industries Inc., Battle Ground, WA, (360) 687-1232

6-21.3(4) Gangway Ramp and Hardware

Gangway ramp structure shall meet the following requirements:
1. Geometry: Spans, widths and heights as indicated on the Drawings. The gangway shall be cambered to account for the gangway’s dead load deflection.
2. Loading: Self weight, uniform live loading of 100 pounds per square foot. Maximum deflection under these loads shall not exceed L/360. The deck and structural components shall also be designed to support a concentrated load of 400 pounds on a 1 foot by 1 foot area.
3. Wind Loading: Design shall be based on wind loads of 110 mph with exposure D in accordance with IBC 2015 requirements.
4. Seismic Loading: Design shall be based on a site D classification, importance category II, and seismic design category D. Ss = 134.9% of g and S1 = 46.5% of g.
6. Aluminum: All structural aluminum, including tubes, plates, angles and pipe shall be Alloy 6061-T6 per ASTM B308.
7. Transition plates at the both ends of the gangway shall meet the requirements of AADAG.

The gangway walking surfaces shall be glass fiber reinforced plastic grating. In general, unless shown otherwise on the Drawings or this Specification, gangway ramp supports and appurtenances shall be in accordance with the requirements of the gangway ramp manufacturer.

1. Steel to support the gangway ramp at the landside end can be ASTM A36 or better, as long as it is galvanized to ASTM A123, Grade 100.
2. Hinge and roller pins at supports shall be 316 stainless steel per ASTM A276.
3. Skids shall be UHMW polyethylene material and shall be an ultra violet stabilized formulation.

6-21.4(5) Fabrication

Ends of members shall be cut square, smooth and free of burrs. Edges of corners shall be ground smooth. Weld splatters and arc strikes shall be removed from all exposed surfaces.

6-21.7(6) Marking

Each gangway ramp shall have a permanent metal identification tag showing the name of the manufacturer, date of manufacture, live load capacity, utility capacity and a unique serial number.

6-21.8(7) Installation

Gangway ramps and components shall be handled in a manner that prevents bending, kinking and damage from abuse. Damaged material resulting from the Contractor’s handling and storage techniques shall be replaced at the Contractor’s expense.

If field welding on the gangway ramps is required, all welding shall be done by an AWS qualified welder, and all materials, method, sequences, etc., shall be in accordance with the gangway ramp manufacturer’s written instructions. The Contractor shall pay for the cost of all testing of required field welds.

The gangway ramp shall be installed on the floating dock and adjusted to allow the dock free movement to travel the full range of tide levels or lateral movements without binding or stressing the gangway or dock. The gangway skid guide shall be secured to the float surface as directed by the gangway manufacturer without causing damage to the float structure.

6-21.4 Measurement

Measurement for "Aluminum Gangway" will be the number actually furnished as the Contract requires.

6-21.5 Payment

Payment will be made in accordance with Section 1-04.1, for each of the following Bid items that are included in the Proposal.

"Aluminum Gangway," lump sum.

The lump sum Contract price for “Aluminum Gangway” shall be full pay for all costs in connection with furnishing materials, labor, tools, and equipment necessary for the manufacture, fabrication, transportation, erection, and painting of the aluminum gangway used in the completed structure, including providing of such other protective coatings or treatments as may be shown in the plans or specified in the special provisions.
6-22 CONCRETE FLOAT SYSTEM

The following section is added

6-22.1 General

6-22.1(1) Description of Work

The Contractor shall furnish all tools, equipment, materials, and supplies and shall perform all labor, supervision, fabrication, assembly, and installation of a complete concrete float breakwater system.

6-22.1(2) Contractor Site Inspection

The Contractor shall examine the job site before preparing their Shop Drawings to verify all physical conditions and surroundings if necessary.

The floats shall have a draft of 4 feet, a freeboard of 2 feet, and a width between 6 and 12 feet as required for strength, stability, and meeting the requirements of these Specifications. Any deviation from the existing design in shape and size must be approved by the Engineer and shall be at the Contractor’s expense.

6-22.1(3) Technical Requirements

Sufficient floatation shall be provided to support a live load of 40 pounds per square foot of deck area, with a minimum freeboard of not less than 12 inches.

Freeboard under dead load only shall not be less than 24 inches.

Contractor should exercise caution to ensure that all dead loads are accurately determined and included in buoyancy calculations. These loads should include appropriate safety factors if used and any specific manufacturing considerations that will affect the final freeboard.

Dead loads shall consist of the floats, framing, waler system, attachment steel, miscellaneous connection devices, and all other permanently attached equipment such as cleats, rub rails, etc.

The weight of lumber for these calculations shall be assumed at no less than 40 pounds per cubic foot.

Walking surface of concrete floats shall be level and flush with respect to the adjacent floats.

Floats shall be designed to float level under dead load only. The decks of the floats shall be within the following tolerances of being level:

a. Maximum transverse slope for main floats: 1 inch per 10 feet of width

b. Maximum longitudinal slope: 1 inch per 10 feet
6-22.1(4) References

All structures and components must be designed per one of the following codes or authorities, depending upon the application:

- International Building Code, (IBC)
- American Institute of Steel Construction (AISC)
- American Welding Society (AWS) D1.1 Structural Welding Code – Steel
- American Welding Society (AWS) D1.4 Structural Welding Code – Reinforcing Steel
- American Society of Testing and Materials (ASTM)
- National Design Specification (NDS) for Wood Construction
- American Institute of Timber Construction (AITC)
- American Society of Mechanical Engineers (ASME)
- American Wood-Preservers’ Association (AWPA)

6-22.1(5) Parameters

Calculations are to be performed for wind and current loads both parallel to and perpendicular to the slips.

Allowable material stresses shall be based on the latest edition of the International Building Code.

Design wave loads shall be as shown on the Contract Drawings.

6-22.1(6) Calculations

All design calculations shall assume that all reasonable dead loads have been incorporated into the system.

Once the loads are determined by the applicable codes listed above, the design and calculations shall be prepared in accordance with AISI and AISC specifications and guidelines.

All engineering and calculations shall be done in accordance with these guidelines using the appropriate allowable capacities and safety factors. Calculations are to be stamped by a Professional Engineer registered in the state of Washington, maintaining professional liability insurance with a minimum policy limit of $1,000,000 or other project requirements.

In addition to sizing all members for these codes and Specifications, the following calculations shall be submitted as a minimum for the breakwater system:

1. Anchorage attachment points to ensure reactions shall be at the steel piles as shown on the Contract Drawings.
2. Overall system loads under full occupancy with consideration for deflections of the system and its effects on anchor allowable pile loading.

3. Anchorage system capacity for individual and overall load consideration.

4. Vertical loading due to wave action and live load requirements.

6-22.1(7) Quality Assurance

The manufacturer must have an ongoing quality assurance program. At the option of the Owner, the manufacturer shall submit a copy of their operational quality assurance program and shall cast no floats until the Owner has approved this quality assurance program.

The manufacturer must have an ongoing quality management system. This quality system must be regularly assessed and currently certified as meeting Pre-cast Concrete Institute Standards.

6-22.2 Products

6-22.2(1) General

The Contractor shall submit, for approval by the Owner, all items intended for the construction of this Project, as well as any alternate materials.

The Owner will be allowed access to all sites where materials pertaining to this Contract are manufactured or constructed for purposes of inspection.

Materials delivered and stored at either the manufacturing facility, staging area, or job site shall be properly stored on dunnage or by other appropriate means to prevent direct contact with the ground and unnecessary damage.

6-22.2(2) Concrete Floats

Float modules shall be cast monolithically in a single pour. There shall be no cold joints of any type.

Float modules shall have a minimum deck thickness of 6 inches and a minimum side wall, end wall, and bottom thickness of 6 inches. Final section thickness will be determined by the Contractor during the project engineering phase.

Floats shall be cast in steel forms, with a smooth, true surface. Forms shall be designed in such a way to prevent unsightly finished surfaces or definite lines that could result in crack planes. Any rough edges, form marks, or defects shall be cleaned, ground smooth, or patched. Float forms shall have a tolerance of not more than 1/8 inch from the dimensions shown on the shop drawings. Floats cast from forms more than 1/2 inch out of square (when measured diagonally) may be rejected.

Concrete shall be vibrated internally and/or externally to assure a smooth dense finish. The placement will be such that the concrete float is monolithic with no cold joints in any part of the finished float.
Concrete shall have a minimum 28-day compressive strength of 4000 psi, per ASTM C 94. Floats made of concrete with less than specified strength may be rejected by the Owner.

The mix shall contain a minimum of 564 pounds (six sacks) of Portland cement per cubic yard, either Type I or Type II modified, and low alkali. Type III cement may be used if the Tri-Calcium Aluminates of the cement is certified by the manufacturer to be between 5% and 8%, and alkali content (Na2O) and (K2O) is less than 0.6%.

Concrete for the flotation units shall contain polypropylene fibrous reinforcement at a rate recommended by its supplier.

The theoretical concrete unit weight shall not be more than 120 pounds per cubic foot for lightweight or 150 pounds per cubic foot for standard weight concrete.

Coarse and fine aggregates shall conform to ASTM C-33-86, ASTM C-330 lightweight aggregates for structural concrete.

All concrete shall be air-entrained from 4% to 7% and shall be tested in accordance with ASTM C-138, C-173, or C-231.

Water/cement ratio shall not exceed 0.45 for light-weight concrete.

Slump range shall be 3 inches to 6 inches when tested in accordance with ASTM C-143-78.

All concrete testing shall be done under guidance by certified personnel. Certification shall be in accordance with the National Ready Mix Concrete Association guidelines or equivalent. All concrete testing methods shall be done in accordance with the respective ASTM specifications. Four compressive test cylinders shall be taken daily per mix, cured, and tested by either an independent testing laboratory or by an on-site, Owner approved, certified testing facility. Test results will be submitted on one each, 7-day; two each, 28-day; and one hold cylinder. Unit weight and entrained air tests will be taken daily from the same material sample used for the compressive test cylinders. Daily concrete cylinder test reports may be submitted to the Owner on a job complete basis. All concrete testing shall be done at the Contractor’s expense.

Galvanized welded wire fabrication if used as concrete reinforcement shall be 2” X 2” - 14/14. Welded wire fabric is required in the deck and the bottom sections with a minimum of a 2-inch return to the sides and ends. Where splicing occurs, the overlap will be a minimum of 4 inches. Galvanized wire mesh shall meet ASTM A-185.

Rebar shall be grade 60, conform to ASTM 615, and shall be epoxy coated in accordance with ASTM A775.

The closed cell expanded polystyrene (EPS) core used inside the concrete unit shall meet Federal Specification C-578-85 which superseded Federal Specification HH-I-524C. The foam shall weigh between 0.95 and 1.10 pounds per cubic foot. EPS to have a maximum absorption of 3% by volume as tested by ASTM Method C-272. Foam core may not have more than 10% reground EPS foam material. Reground foam pieces shall not exceed 3/8 inch in diameter.
The foam core shall be held in a true position during the casting operation with an allowable variation of 1/8 inch from the dimensions shown on the Shop Drawings. Foam billets will have a dimensional tolerance of plus 1/8 inch and minus 1/8 inch. Foam core shall be made up of not more than four laminated sections. The laminated foam core shall be glued with a low solvent glue to prevent delamination during transportation and handling. No horizontal lamination may occur in the upper 10 inches of the foam core.

The float deck surface shall be trowel finished with a steel trowel and a slip-resistant finish applied transversely to the walking surface. Contractor shall establish finishing methods and procedures to ensure an even and consistent broomed or screed finish on all deck surfaces. All top edges shall have a 3/8-inch tooled radius with a minimum 1-1/2-inch-wide smooth hard steel finished face. Outside top edges and corners shall be filed smooth.

Except as otherwise approved, floats shall be cured for a minimum of 7 days before transporting or assembling. The Contractor shall select their own method of curing and be responsible for the result, except that all curing shall be under cover and with complete protection from direct sunlight, wind, and freezing for a period of 3 days.

Floats shall be protected against damage from any cause. Any damaged units may be rejected and removed from the assigned job.

Cracks that are determined to be structural in nature by the Engineer and not located in the deck of the module shall be V-cut out and patched with a non-shrink patching compound approved by the Owner. Cracks that are determined to be structural in nature by the Engineer, which are located in the deck of the float module, shall be patched in accordance with methods and materials approved by the Owner and the Engineer on a case-by-case basis. The Engineer shall determine if excessive cracking in a single flotation unit shall be cause for rejecting that unit. Any frequently recuring pattern of cracking shall be considered indicative of inadequate design, improper handling, or improper production procedures shall be corrected by the manufacturer immediately upon its discovery.

Rock pockets exceeding 1 inch in diameter and/or 1/2 inch in depth and/or honeycombing, shall be patched with an approved non-shrink grout of a color similar to the cured concrete. Any pockets that expose mesh or rebar shall be chipped out, cleaned, and filled with an approved epoxy patching compound.

6-22.2(3) Through-rod Connections

The minimum dimension for all horizontal through-rods for structural attachment is 3/4 inch thread diameter.

All horizontal through-rods shall be placed within PVC sleeves cast in the float units. The maximum inside diameter of PVC shall not exceed 7/8 inch.

All cast in inserts will be galvanized steel, 3/4-inch diameter, with a welded loop or horizontal restraining bar. Inserts shall be inserted to match existing floats to enable reuse of the hinges.

Rub-boards shall be securely fastened to the concrete floats using galvanized through-rods, plate washers, spur locker washers, and nuts.
No connecting device shall protrude beyond the fascia into the berth area. Any connecting device protruding above the surface of the deck shall have a low, rounded profile.

The minimum dimension for all vertical through-rods for attachment of the HDPE wearing members is ½-inch thread diameter. Vertical through rods must be countersunk so they do not extend above the deck surface once installed.

6-22.2(4) Lumber

All timber rub boards and walers shall be of Coast Region Douglas Fir; Select Structural or No. 1, or better per West Coast Lumber Inspection Bureau (WCLB) grading rules No. 16, Paragraph 123 or Paragraph 124 as applicable and shall be free of wane (FOW).

Lumber splices shall not exceed 1/2 inch between adjoining ends.

All walers, rub boards, fascia, spacers, plywood, or any other member that is subject to foot traffic shall be flush with the concrete walking surface.

All lumber shall be pressure preservative treated with chromated copper arsenate (CCA), alkaline copper quaternary (ACQ), or ammoniacal copper zinc arsenate (ACZA) to 0.6 pound per cubic foot retention as required by local code requirements. All lumber will be cut to length and all holes drilled prior to pressure treatment as far as is possible. All field cuts and bored holes exposed after pressure treatment shall be brush coated with the preservative solution.

Tie bands used for delivery must have plates between the bands and the wood to prevent crushing. Bundle identification shall be done so as not to stain lumber surfaces.

6-22.2(5) Steel

All structural steel channels, angles, and plates shall be fabricated from mild steel conforming to ASTM A-36, and shall be hot dipped galvanized after fabrication.

A hot dipped galvanized coating shall be required on all through-rods, bolts, miscellaneous hardware, cleats, steel plates, angles, and shapes in accordance with either ASTM A-123 or ASTM A-153 as the process applies to the specific material.

Zinc coating thickness to be a minimum of 3 mils.

Galvanized coatings damaged from handling or other means shall be repaired with hot-stick galvanizing to achieve a minimum 12 mil thickness. A 2 mil minimum coating of zinc rich spray or brush-applied coating shall follow the stick galvanizing.

Guide pile collars shall accommodate the existing guide piles and shall have ultra high molecular weight protection between the piles and collars.

6-22.2(6) Hardware

Bolts, nuts, washers, and through-rods shall be mild steel, in accordance with ASTM A 307 and have a minimum of 1-1/2 inch of thread.
All mild steel hardware shall be hot dipped galvanized in accordance with ASTM A-123.

Washers shall be used with all nuts and bolts which bear on wood or steel. Round plate washers shall be used on all through-rods bearing on wood surfaces. Cut washers shall be used on all surfaces bearing on steel surfaces.

6-22.3 Execution

6-22.3(1) Staging

The Contractor shall stage all floats off site until immediately prior to installation. Owner can provide an off-site staging area within a mile of the work site. Disruption to public access to the ramp shall be minimized.

During construction, the floats can be staged in the designated laydown area.

The Contractor shall maintain the staging area in a neat and clean manner, ensuring that all rubbish is promptly removed and stormwater drainage systems are protected.

6-22.3(2) Construction

Install components as shown on the Drawings, using galvanized bolts, plate washers, and nuts. Use Sea Dog galvanized iron hex-head closed base dock cleats, or approved alternative.

Deliver completed floats to the site ready to be installed, with all appurtenances installed.

All work shall be performed in accordance with the Hydraulic Project Approval (HPA).

6-22.4 Measurement

Measurement for "Floats" shall be in a lump sum quantity.

6-22.5 Payment


The second paragraph is revised to read as follows:

Where no item for structural metal is included in the Proposal, full pay for furnishing and placing metal parts shall be included in the unit Contract lump sum price for "Timber and Lumber (treated)."

END OF SECTION
9-09 TIMBER AND LUMBER
(xxxx)

9-09.2 Grade Requirements
In the first paragraph, remove the fifth and sixth sentences that read:
Pacific Lumber Inspection Bureau (PLIB)
Any Lumber grading bureau certified by the American Lumber Standards Committee.

9-09.2(1) Structures
The first paragraph is revised to read:
All timber and lumber for structures shall be Hem-Fir and shall conform to #2, grade, unless
noted otherwise on the Drawings.

The table after the first paragraph is deleted:

9-09.3(1) General Requirements
The first sentence of the fourth paragraph is revised to read:
As specified in the contract, all orders of treated timber and lumber shall be accompanied
by a Certificate of Treatment record.

The first and second sentences of the fifth paragraph are revised to read:
In addition to the Certificate of Treatment, all orders of treated timber of lumber shall be
accompanied by a Grading Certificate in accordance with Section 9-09.2(3). Such
certification shall not constitute final acceptance of the material.

END OF SECTION
9-10 PILING

9-10.5 Steel Piling

This section is replaced with the following:

The material for steel piling shall conform to the requirements of ASTM A 252, Grade 3, with a minimum yield strength of 50 ksi.

Steel piling shall be straight seam welded, seamless, or helical (spiral) welded. All welds shall be complete joint penetration welds.

The carbon equivalency (CE) of steel for steel piles, as defined in Section AWS D1.1, Section X15.1, shall not exceed 0.45.

The sulfur content of steel for steel piles shall not exceed 0.05 percent.

Steel piles shall be manufactured to the outside diameter, wall thickness, lengths, and quantities listed on the Plans.

Fabrication/erection inspection requirements at the pile manufacturing plant are as follows:

1. Twenty-five percent of the length of each continuous longitudinal and spiral weld on each pile shall be nondestructively tested (NDT) by either radiographic, radioscopic, real time imaging systems, or ultrasonic methods that are in conformance with the requirements of AWS D1.1.

2. The acceptance and repair criteria shall conform to the requirements of AWS D1.1, Section 6, for tension, cyclically-loaded, non-tubular connections.

3. If repairs are required in a portion of the weld, additional NDT shall be performed. The additional NDT shall be made on both sides of the repair for a length equal to 10 percent of the length of the pipe outside circumference and on an additional 10 percent of the total length of the weld on the piece of pipe inspected. If additional weld defects are found, 100 percent of the length of the weld on the steel pile shall be nondestructively inspected in conformance to the procedures noted above.

4. The Contractor shall be responsible for performing all fabrication inspection at the pile manufacturing plant, as defined above, and all costs associated with such performance shall be incidental to furnishing steel piles.

5. Records verifying that this testing was accomplished and that all tested welds were in conformance with these specifications shall be submitted with the manufacturer's mill certificates.
All steel piling may be accepted by the Engineer based on the Manufacturer’s Certification of Compliance.

All portions of steel piles designated as galvanized on the plans shall be hot-dip galvanized in accordance with ASTM A 123 to Thickness Grade 100, unless noted otherwise.

Repair all galvanized surfaces removed or damaged during shipping in accordance with ASTM A 780. Repair material shall be in zinc-based alloy solder (zinc rod). Application shall be in accordance with ASTM A 780 and rod manufacturer's recommendations. Minimum applied thickness shall be 12 mils.

END OF SECTION
Add this new section:

Where AASHTO Material Specifications (M xxx) or Test Specifications (T xxx) are referenced in the Standard Specification, the corresponding ASTM Specification as outlined below may be used on this project in lieu of the AASHTO Specification.
<table>
<thead>
<tr>
<th>AASHTO DESIGNATION</th>
<th>TITLE</th>
<th>ASTM DESIGNATION</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 31</td>
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<td>A 615</td>
<td>Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement</td>
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<tr>
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<td>Standard Method of Test for Steel Wire Plain for Concrete Reinforcement</td>
<td>A 82</td>
<td>Specification for Steel Wire Plain for Concrete Reinforcement</td>
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<tr>
<td>M 55</td>
<td>Standard Method of Test for Steel Welded Wire Reinforcement Plain for Concrete</td>
<td>A 185</td>
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<td>M 148</td>
<td>Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete</td>
<td>C 309</td>
<td>Specification for Liquid Membrane-Forming Compounds for Curing Concrete</td>
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<td>M 154</td>
<td>Standard Specification for Air-Entraining Admixtures Concrete</td>
<td>C 260</td>
<td>Specification for Air-Entraining Admixtures for Concrete</td>
</tr>
<tr>
<td>M 157</td>
<td>Standard Specification for Ready-Mixed Concrete</td>
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<tr>
<td>M 164</td>
<td>Standard Specification for High-Strength Bolts for Structural Steel Joints</td>
<td>A 325</td>
<td>Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength</td>
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<tr>
<td>M 171</td>
<td>Standard Specification for Sheet Materials for Curing Concrete</td>
<td>C 171</td>
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<td>M 183</td>
<td>Standard Specification for Structural Steel</td>
<td>A 36</td>
<td>Specification for Carbon Structural Steel</td>
</tr>
<tr>
<td>M 194</td>
<td>Standard Specification for Chemical Admixtures for Concrete</td>
<td>C 494</td>
<td>Specification for Chemical Admixtures for Concrete</td>
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<td>M 203</td>
<td>Standard Specification for Steel Strand, Uncoated Seven-Wire for Concrete Reinforcement</td>
<td>A 416</td>
<td>Specification for Steel Strand, Uncoated Seven-Wire for Prestressed Concrete</td>
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<td>M 221</td>
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<td>A 497</td>
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<td>A 496</td>
<td>Specification for Steel Wire, Deformed, for Concrete Reinforcement</td>
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<td>M 232</td>
<td>Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</td>
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<td>Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware</td>
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<tr>
<td>M 270</td>
<td>Standard Specification for Structural Steel for Bridges</td>
<td>A 709</td>
<td>Standard Specification for Structural Steel for Bridges</td>
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<td>ASTM DESIGNATION</td>
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<td>M 292</td>
<td>Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both</td>
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<td>Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both</td>
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<tr>
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<td>Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete</td>
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<tr>
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<td>Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel</td>
<td>B695</td>
<td>Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel</td>
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<tr>
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<tr>
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<td>T 90</td>
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<td>Standard Method of Test for Air content of Freshly Mixed Concrete by the Pressure Method</td>
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<td>Standard Method of Test for Mechanical Testing of Steel Products</td>
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<td>T 304</td>
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APPENDIX A

TRAFFIC CONTROL HANDBOOK
TRAFFIC CONTROL

HANDBOOK

MUST MAINTAIN PEDESTRIAN AND DISABILITY ACCESS AT ALL TIMES

City of Tacoma
Department of Public Works
Last updated: 10/21/09
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Permits / General Rules
Special Traffic Requirements

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CREATE YOUR OWN PLAN

Blank Two Lane Road
Blank Two Lane Road with Center Turn Lane
Blank Two Lane Road with Two Intersections
Blank Two Lane Road with Two Intersections and Parking
Blank Two Lane Road with Four Intersections and Parking
Blank Four Lane Road with Two Intersections
Blank Four Lane Road with Two Intersections and Parking
Blank Five Lane Road
TRAFFIC CONTROL PLAN INSTRUCTIONS

1) To create a traffic control plan, go to www.govME.com
2) At the bottom of the page, under “City Information” choose “Traffic Control Handbook”

3) Read “INTRODUCTION & SPECIAL REQUIREMENTS” Chapter. Pay particular attention to the sections regarding Pedestrian and Disability access.

4) Choose a plan closest to the type of traffic control you need.
   - You may need to alter an existing plan or use multiple plans

5) Print out the traffic control plan that you need.

6) On the map, identify street names and addresses of work.

7) Draw site specific details (work area, location of signs, cones, etc.).

8) Add Contractor name and contact information.

9) Specify type of work at the top of the page

10) List dates of work and desired work hours.

11) Contact a Permit Specialist when you are done filling in your Traffic Control Plan.

12) Write the permit number in the top right corner of the sheet (when obtained from the Permit Specialist).

13) The Traffic Control Plan is not valid until permit is acquired and paid for.

14) You must keep a copy of the Traffic Control Plan on your job site for Inspectors and Road Use Compliance Officers to review. Prime contractors will be responsible for any subcontractor’s traffic control unless sub goes through the above process.
INTRODUCTION

This manual is intended for use by any person, firm or corporation, public or private, when involved in construction, maintenance or any activity that alters the normal flow of traffic, vehicular or pedestrian, on any City right-of-way.


Authority to establish local rules regarding channelization and traffic control is permitted by Washington Administrative Code (WAC) 308.330.265.

Unless specifically addressed in this manual, when the term “should” is used in the MUTCD to describe a condition or method for traffic control, it means that if that suggestion is not used an equally effective method will be used. It does not eliminate the responsibility to address the situation.

This manual does not prohibit the use of additional traffic control or warning devices as long as the minimum conditions are met.

For additional information, please call the Engineering Division at (253) 591-5500.

PERMITS

A permit must first be obtained from the Public Works Department by any person, firm or corporation working in City right-of-way that alters the normal flow of traffic or makes any public place dangerous.

Provisions for obtaining a permit are outlined in Tacoma Municipal Code Chapter 10.22.

All applications for permits must have a comprehensive traffic control plan attached for review by the Traffic Engineer. Permits will not be issued unless the Traffic Engineer has approved the traffic control plan.

MUNICIPAL AGENCIES

Municipal agencies and Utilities are not required to obtain a permit for routine maintenance and repairs, but must notify the Traffic Engineer a minimum of 72 hours in advance if the following conditions apply:

1. Closing any street (see attached street closure requirements).
2. Altering or detouring traffic during commute hours on arterial streets (7 a.m. – 9 a.m. and 4 p.m. – 6 p.m.).
3. The activity or obstruction will be in place for more than 8 hours.
4. The activity or obstruction is during the hours of darkness.
5. The activity reduces traffic on arterial streets to less than one lane in each direction.
GENERAL RULES

The following list of rules must be followed while involved in construction, maintenance or other activity in City right of way unless specifically addressed by the Traffic Engineer.

1. All traffic control devices must meet the requirements established by the Manual on Uniform Traffic Control Devices.

2. No activity will be placed in such a way as to detour, slow or alter traffic flow during peak commute hours. These times are generally from 7 a.m. – 9 a.m. and 3:30 p.m. – 6 p.m. The Traffic Engineer may allow an exception with prior approval.

3. An approved traffic control plan must be on-site and accessible for inspection at all times by law enforcement or inspectors.

4. Traffic control plans and activities must include the following components:
   a. Advanced Warning Area: Signs and other devices inform drivers of what to expect.
   b. Transition Area: Channelization devices move traffic from the normal flow to the desired path.
   c. Activity Area: Area where the work takes place.
   d. Buffer Space: Area used to separate traffic from the work activity area and provides recovery space for an errant vehicle.
   e. Termination Area: Area used to return traffic to the normal path.

5. Pedestrian and disability access must be maintained throughout the period of time construction is underway. This does not just apply to the final product, but accessibility must be maintained during the actual construction. Safe, clearly marked routes must be maintained through or around the construction activity at all times. The use of temporary walkways with width, slope, and cross-slope compliant to the maximum extent feasible shall be incorporated on the job site. Surfaces must be firm, stable, and slip resistant. Channeling and barricading must be used to separate pedestrians from traffic. Adequate barricading must be addressed to prevent visually impaired pedestrians from entering work zones. Alternate pedestrian circulation routes with appropriate signage that can be accessed by people who use mobility aids (wheelchairs, walkers, scooters, etc.) The alternate circulation path shall have a minimum width of 5 feet and parallel the disrupted pedestrian access route when practicable. Barricades and channelizing devices shall be continuous, stable, non-flexible, and shall consist of a wall, fence, or enclosure specified in section 6F of the MUTCD. A solid toe rail should be attached such that the bottom edge is 6 inches maximum above the walkway surface. The top rail shall be parallel to the toe rail and shall be located 36 inches minimum and 42 inches maximum above the walkway surface. If drums, cones, or tubular markers are used to channelize pedestrians, they shall be located such that there are no gaps between the bases of the devices in order to create a continuous bottom, and the height of each individual device shall be no less than 36 inches.

6. Persons in charge of maintaining or establishing traffic control and channelization must have a certified flagger control card in their possession and must be on the site at all times or be represented by another knowledgeable, certified person.

7. A flagger cannot be used to direct traffic through a signalized intersection against the signal indications. When flaggers are used near signalized intersections, care will be used to clear the intersection of traffic before the signal change.

8. In some situations, Signal modifications may be used to support the traffic control plan. The traffic Signal Shop shall make all modifications, and all modifications must be approved by the Traffic Engineer.

9. A uniformed police officer is required to direct traffic through a signalized intersection against the signal indications.

10. Police officers may also be required during activities for traffic calming if speeds are high, pedestrian or vehicular traffic volume is extremely high, or during emergencies.
11. To minimize the disruption to access to adjacent properties, and to Pierce Transit operations, the lane closure area shall be limited to that area of active work and necessary for appropriate lane closure tapers. The Contractor shall stage work to maintain access to and egress from all properties at all times. An approved traffic control plan and permit shall be posted on the job site for review by City officials. Construction Inspectors shall ensure the approved traffic control plan is on site at all times. Any approved Traffic control plans the Contractor doesn't follow are in violation of the Standard Specifications which are included in the contract. It is the inspector's job to have them comply or Stop work. Jobs having permits only and not following the approved Traffic Control plan is a violation of Tacoma Municipal Code 10.22.080. The work can be stopped or a violation infraction can be imposed in an amount not exceeding $500.00.

12. When parking lanes are closed due to construction, “no parking” portables will be installed at least 48 hours in advance of the closure in unrestricted areas and 24 hours in advance in time restricted areas. The message on the portables shall establish the date and hours for no parking.

13. During emergencies where life, property or public safety is in danger, conditions listed may be changed. Traffic control will be addressed along with the initial response. (See attached page for emergency contact numbers.)

14. The Traffic Engineer may allow reduced speed limits in construction area zones. Request for speed reduction must be included in the traffic control plan.

15. All signs and cones shall be removed from the right-of-way when traffic control is not in effect.

16. The contractor may be required to discontinue work if possible conflict exists with special events such as parades, sporting events, miscellaneous rallies, and large public meetings. Information concerning such events can usually be obtained from the City Clerks Office, tel. (253) 591-5171.

17. Maintenance of 2-way traffic on arterial streets at all times except on one-way streets. Additional width for facilitating traffic flow may be obtained by prohibiting on-street parking adjacent to the work zone.

18. No work shall be scheduled on streets or sidewalks within the City of Tacoma Business Districts from Thanksgiving Day through New Year’s Day.

19. All traffic control devices used at night, particularly signs, barricades and channelizing devices, must have Type C steady burn lights. Requests to reduce the number of lights used on channelizing devices must be specifically detailed on the approved traffic control plan.

Failure to comply with the provisions of this manual is a traffic infraction and, notwithstanding any fines or penalties levied against the person, firm or corporation involved, if a safety hazard exists, the work may be ordered stopped and the obstruction cleared by the person, firm or corporation responsible or by the City at that responsible party’s expense.

http://www.cityoftacoma.org/
http://wspwit01.ci.tacoma.wa.us/govME/Admin/Inte/StartPage/default.aspx
http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic_Control_Handbook.pdf
Special Traffic Requirements

The contractor shall notify the following departments three (3) working days prior to any street closure.
Pierce Transit requires five (5) working days prior to any route detours.

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<thead>
<tr>
<th>Department</th>
<th>Phone</th>
<th>Fax</th>
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<tr>
<td>Traffic Engineering</td>
<td>591-5500</td>
<td>591-5533</td>
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<td>Tacoma Fire Department</td>
<td>591-5733</td>
<td>591-5034</td>
<td><a href="mailto:kmueller@cityoftacoma.org">kmueller@cityoftacoma.org</a></td>
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<td>Tacoma Police –Ops</td>
<td>591-5932</td>
<td>594-7842</td>
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<td>LESA</td>
<td>798-4721 Opt #3</td>
<td>798-2708</td>
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<td>Sound Transit Link</td>
<td>206-370-5674</td>
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<td>Pierce Transit</td>
<td>581-8109</td>
<td>589-6364 or 589-6367</td>
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<tr>
<td>Pierce Transit Events Coordinator</td>
<td>581-8001</td>
<td>984-8161</td>
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<tr>
<td>Public Works/Street Ops</td>
<td>591-5495</td>
<td>591-5302</td>
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<td>School Trans Office</td>
<td>571-1853</td>
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<td>Durham School Services</td>
<td>475-0422</td>
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<td>First Students</td>
<td>272-7799</td>
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<tr>
<td>UWT Facilities Services</td>
<td>692-5705</td>
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<td>Off-Duty Police Officer</td>
<td>591-5932</td>
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<td><a href="mailto:TacomaPoliceEvents@cityoftacoma.org">TacomaPoliceEvents@cityoftacoma.org</a></td>
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<td>Tacoma Refuse</td>
<td>591-5544</td>
<td>591-5547</td>
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Include the following information when notifying the above departments.

- Name of street to be closed & the extent of the closure (between which two roads).
- Stipulate whether or not the area is to be open to local traffic & emergency vehicles.
- State the date(s) & hour(s) the closure will be in effect.
- Give the reason for the closure.
- Provide detour information.
- State who/which firm is performing the work.
- Provide the name and telephone number of a contact person.

Recommended Publications

As a contractor you will have many opportunities for setting up traffic control. To comply with national standards, we recommend having the MUTCD (Manual on Uniform Traffic Control Devices) for future reference.

To order hard copies or CD versions of the MUTCD please go to one of the links below:
- American Association of State Highway Organizations at: https://bookstore.transportation.org/
- Institute of Traffic Engineers at: http://www.ite.org/bookstore/index.asp

Things to Think About

Before the traffic control plan is drawn visit the site and look for special circumstances that may be unique to the area. For example work being done on the sidewalk may be a hazard if someone walks out a door into your wet cement or a tool may fall on someone’s head if someone is in a lift washing windows. Call Pierce Transit if you need to do work at a bus stop. Transit requires five (5) days notice for route detours. Transit will inform citizens and move or temporarily close the stop. Keep in mind that pedestrians need 5’ of unobstructed walking area. If roadwork needs to be done on an arterial street, traffic control devices shall be removed during peak hour traffic (7am to 9am and 4pm to 6pm). For further information see our TRAFFIC CONTROL HANDBOOK.

http://www.cityoftacoma.org/
http://wspwit01.ci.tacoma.wa.us/govME/Admin/Inter/StartPage/default.aspx
http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic_Control_Handbook.pdf
Note: At night, signage and barricades must be Type C steady burn lights. A contractor may close a nonarterial street to through traffic, provided that local access is maintained at all times with a minimum of a 20' wide access lane. Road Work Ahead signs may be eliminated on non-arterial streets.

### Non-Arterial Road Closures

- **Approved By:**
- **Approved With Conditions By:** ___________________________ Date: ___________________________
- **Start Traffic Control Set Up Date:** ________ Off Peak 9:00 AM Weekdays
- **Must Be Out of the Road by Date:** _______ Off Peak 3:30 PM Weekdays

#### Evening and Weekends Only
- **Start Traffic Control Set Up Date & Time:** ___________________________
- **Must Be Out of the Road by Date & Time:** ___________________________

### Merging Taper Lengths for Cone Pattern

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- **Number of Channelization Devices (Cones):**
  - Offset cones 1 foot maximum.

**Notes:**
- Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or trapped by vehicles entering or exiting the work zone. Failure to comply will result in a stop work order and/or citation.
- No work shall be scheduled on streets or walkways within the City of Tucumcari business district from Thanksgiving Day through New Year's Day.
- Sign spacing: Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 350' apart.

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**SAMPLE SETUP**
SINGLE LANE NON-ARTERIAL WITH FLAGGER

☑ APPROVED BY: ____________________________ DATE: ____________________________
☑ APPROVED WITH CONDITIONS BY: ____________________________

START TRAFFIC CONTROL SET UP DATE: ___________ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: ___________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME: ____________________________
MUST BE OUT OF THE ROAD BY DATE & TIME: ____________________________

MERGING TAPER LENGTHS FOR CONE PATTERN
(All minimums)

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NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

NOTE 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

NOTE 2: No work shall be scheduled on streets or walkways within the City of Tacoma business districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign spacing. Urban low speed 25-30 mph signs must be placed 100 apart. Urban high speed 30-40 mph signs must be placed 300 apart.
CBD RIGHT LANE CLOSURE

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: ________________________ DATE: ____________

START TRAFFIC CONTROL SET UP DATE: _______ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: _______ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

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OFFSET CONES 1 FOOT MAXIMUM

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRASHED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STEETS OR WALKWAYS WITHIN THE CITY OF BIZONA BUSINESS DISTRICTS DURING THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 300' APART.
SHOULDER WORK WITH MINOR ENCROACHMENT

- APPROVED BY: ___________________________ DATE: ____________
- APPROVED WITH CONDITIONS BY: ___________________________ DATE: ____________

START TRAFFIC CONTROL SET UP DATE: ____________ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: ____________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME: ___________________________
MUST BE OUT OF THE ROAD BY DATE & TIME: ___________________________

MERGING TAPER LENGTHS FOR CONE PATTERN
(All minimums)

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NUMBER OF CHANNELIZATION DEVICES (CONES)
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR Tracker BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPARE WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF INDIANIA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 150' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 300' APART.
TWO LANE CENTER CLOSURE

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: ______________ DATE: ______________

START TRAFFIC CONTROL SET UP DATE: ______________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: ______________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: ______________

MUST BE OUT OF THE ROAD BY DATE & TIME: ______________

OFFSET CONES 1 FOOT MAXIMUM.

MERGING TAPER LENGTHS FOR CONE PATTERN
(All Minimums)

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NUMBER OF CHANNELIZATION DEVICES (CONES)

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100 APART. URBAN HIGH SPEED 30-40 MPH SIGNS MUST BE PLACED 100 APART.
TWO WAY
LANE SHIFT
WITH PARKING

□ APPROVED BY:
□ APPROVED WITH CONDITIONS BY: __________________________DATE: __________________________

START TRAFFIC CONTROL SET UP DATE:__________OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE:__________OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

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Offset cones 1 foot maximum.

NOTE 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc., as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

NOTE 2: No work shall be scheduled on streets or walkways within the city of Tacoma business districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign spacing. Urban low speed 25-30 mph signs must be placed 100' apart. Urban high speed 35-40 mph signs must be placed 100' apart.
RIGHT LANE CLOSURE

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: __________________________ DATE: __________________________

START TRAFFIC CONTROL SET UP DATE: ___________ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: ___________ OFF PEAK 3:30 PM WEEKDAYS

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NUMBER OF CHANNELIZATION DEVICES (Cones)

Offset cones 1 foot maximum.

Note 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

Note 2: No work shall be scheduled on streets or walkways within the city of Tacoma business districts from Thanksgiving Day through New Year's Day.

Note 3: Sign Spacing: Urban low speed 25-30 MPH signs must be placed 150' apart. Urban high speed 35-40 MPH signs must be placed 350' apart.
RIGHT LANE CLOSURE AT INTERSECTION

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: __________________________ DATE: __________________________

START TRAFFIC CONTROL SET UP DATE: ____________ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: ____________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS FOR CONE PATTERN
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LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)
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NOTE 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc., as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

NOTE 2: No work shall be scheduled on streets or walkways within the City of Tacoma Business Districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign spacing. Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 300' apart.
### Left Lane Closure at Intersection

- **Approved By:**
- **Approved With Conditions By:**
- **Date:**

**Start Traffic Control Set Up Date:**
- **Off Peak 9:00 AM Weekdays**

**MUST Be Out of the Road By Date:**
- **Off Peak 3:30 PM Weekdays**

**Evening and Weekends Only**
- **Start Traffic Control Set Up Date & Time:**
- **Must Be Out of the Road By Date & Time:**

### Merging Taper Lengths for Cone Pattern

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**Number of Channelization Devices (Cones):**
- Offset cones 1 foot maximum

**Note:**
- Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.
- No work shall be scheduled on streets or walkways within the city of Indiana business districts from Thanksgiving Day through New Year's Day.
- Sign Spacing: Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 300' apart.
SAMPLE SETUP

One Way
Multi-Lane
Closure

☐ Approved by:
☐ Approved with conditions by: ______________________ Date: ____________

Start Traffic Control Set Up Date: ________ Off Peak 9:00 AM Weekdays

Must be out of the road by Date: ________ Off Peak 3:30 PM Weekdays

Evening and Weekends Only
Start Traffic Control Set Up Date & Time:

Must be out of the road by Date & Time:

Merging Taper Lengths for Cone Pattern
(All Minimums)

<table>
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<th>MPH</th>
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<tr>
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Number of Channelization Devices (Cones)

Offset cones 1 foot maximum.

Note 1: Maintain legal access and protected sidewalks at all times. Provide and maintain barricades, signs, lights, etc., as per "Manual on Uniform Traffic Control Devices" at all times. Streets and sidewalks shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order or/or citation.

Note 2: No work shall be scheduled on streets or sidewalks within the city of Tacoma business districts from Thanksgiving Day through New Year's Day.

Note 3: Sign spacing. Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 300' apart.
FIVE LANE ROAD
MULTI-LANE CLOSURE

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: __________________________ DATE: __________________________

START TRAFFIC CONTROL SET UP DATE: ________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: ________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME: __________________________

MUST BE OUT OF THE ROAD BY DATE & TIME: __________________________

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

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NUMBER OF CHANNELIZATION DEVICES (Cones)

Offset cones 1 foot maximum.

Note 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

Note 2: No work shall be scheduled on streets or walkways within the City of Tucson business districts from Thanksgiving Day through New Year's Day.

Note 3: Sign spacing. Urban low speed 25-30 mph signs must be placed 100 feet apart. Urban high speed 35-40 mph signs must be placed 150 feet apart.
TRAFFIC CONTROL
FOR 5 LANE SHIFTING

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: __________________________ DATE:

START TRAFFIC CONTROL SET UP DATE: ____________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: ____________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME:

MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS
FOR CONE PATTERN

(All minimums)

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OFFSET CONES 1 FOOT MAXIMUM.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRADED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: ALL WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 300' APART.
LEGEN

1. Night work requires additional roadway lighting at flagging stations, which may also be a work vehicle.

2. Protective vehicle recommended – may be a work vehicle.

3. Each roundabout location is unique and the traffic control must be developed to meet the specific conditions of the location and the work operation.

4. If the work and all work vehicles are off the travel lanes and island apron, a single Road Work Ahead sign per approach is all that is required. Refer to additional guidance in the MUTCD manual for further information.

5. Consider an additional flagger in center island to assist traffic movement through roundabout or additional signage as appropriate.

TPICAL ROUNDBOUT WITH FLAGGERS

START TRAFFIC CONTROL SET UP DATE: _______ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: _______ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MUTCD TYPICAL ROUNDABOUT", STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.

NOTE 2: NIGHT WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING. URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 150' APART.

MERGING TAPER LENGTHS FOR CONE PATTERN
(All minimums)

<table>
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<th>LANE WIDTH</th>
<th>NUMBER OF CHANNELIZATION DEVICES (CONES)</th>
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<tr>
<td>8'</td>
<td>14 30 54 84 120 164 214</td>
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<tr>
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<td>17 38 67 105 150 204 267</td>
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<td>24 53 94 146 210 286 374</td>
</tr>
<tr>
<td>16'</td>
<td>27 60 107 167 240 327 427</td>
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</tbody>
</table>

OFFSET CONES 1 FOOT MAXIMUM.
Workers must be protected by vehicle equipped with auxiliary beacons/strobes and a high visibility illuminated arrow device.

**Center Lane Closure at Intersection Under 60 Minutes**

- **Approved By:**
- **Approved With Conditions By:**
- **Date:**

**Start Traffic Control Set Up Date:**

**Off Peak 9:00 AM Weekdays**

**Must Be Out of the Road by Date:**

**Off Peak 3:30 PM Weekdays**

**Evening and Weekends Only**

**Start Traffic Control Set Up Date & Time:**

**Must Be Out of the Road by Date & Time:**

**Merging Taper Lengths for Cone Pattern**

(All minimums)

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</table>

**Offset Cones 1 foot maximum.**

**Note 1:** Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or trapped by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

**Note 2:** No work shall be scheduled on streets or walkways within the city of Inverness business districts from Thanksgiving Day through New Year's Day.

**Note 3:** Sign Spacing: Urban low speed 25-30 MPH signs must be placed 120' apart. Urban high speed 35-40 MPH signs must be placed 350' apart.
INSIDE LANE CLOSURE AT INTERSECTION UNDER 60 MINUTES

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY:__________________DATE:__________________

START TRAFFIC CONTROL SET UP DATE:________OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE:________OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRASHED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF INDIANAPOLIS BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 300' APART.

WORKER PROTECTION

Workers must be protected by vehicle equipped with auxiliary beacons/strobes and a high visibility illuminated arrow device.

Nose cones for truck optional.
Lane Closure at Intersection Under 60 Minutes

☐ Approved by:
☐ Approved with Conditions by: __________________________ Date: __________________________

Start Traffic Control Set Up Date: _______ Off Peak 9:00 am Weekdays

Must be Out of the Road by Date: _______ Off Peak 3:30 pm Weekdays

Evening and Weekends Only
Start Traffic Control Set Up Date & Time: __________________________
Must be Out of the Road by Date & Time: __________________________

Note 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a Stop Work Order and/or Citation.

Note 2: No work shall be scheduled on streets or walkways within the City of India business districts from Thanksgiving Day through New Year's Day.

Note 3: Sign Spacing: Urban Low Speed 25-30 MPH signs must be placed 100' apart. Urban High Speed 35-40 MPH signs must be placed 300' apart.

Sample Setup

Workers must be protected by vehicle equipped with auxiliary beacons/strobes and a high visibility illuminated arrow device.

Merging Taper Lengths for Cone Pattern

(All minimums)

<table>
<thead>
<tr>
<th>MPH</th>
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<td>427</td>
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</table>

Number of Channelization Devices (Cones)

Offset cones 1 foot maximum.
Workers must be protected by vehicle equipped with auxiliary beacons/strobes and a high visibility illuminated arrow device.

**MID-BLOCK LANE CLOSURE UNDER 60 MINUTES**

☐ APPROVED BY: ___________________________ DATE: __________

☐ APPROVED WITH CONDITIONS BY: ___________________________ DATE: __________

START TRAFFIC CONTROL SET UP DATE: __________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: __________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: ___________________________

MUST BE OUT OF THE ROAD BY DATE & TIME: ___________________________

**MERGING TAPER LENGTHS FOR CONE PATTERN**

(All minimums)

<table>
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<tr>
<th>MPH</th>
<th>8'</th>
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**NUMBER OF CHANNELIZATION DEVICES (CONES)**

Offset cones 1 foot maximum.

**NOTE 1:** Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

**NOTE 2:** No work shall be scheduled on streets or walkways within the City of Inland Business Districts from Thanksgiving Day through New Year’s Day.

**NOTE 3:** Sign Spacing: Urban low speed 25-30 MPH signs must be placed 100' apart, urban high speed 35-40 MPH signs must be placed 300' apart.
TRAFFIC CONTROL RECOMMENDATIONS FOR TRUCK CROSSING

☐ APPROVED BY: ___________________________ DATE: ___________________________

☑ APPROVED WITH CONDITIONS BY: ___________________________ DATE: ___________________________

START TRAFFIC CONTROL SET UP DATE: __________ OFF PEAK 9:00 AM WEEKDAYS.

MUST BE OUT OF THE ROAD BY DATE: __________ OFF PEAK 3:30 PM WEEKDAYS.

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: ___________________________

MUST BE OUT OF THE ROAD BY DATE & TIME: ___________________________

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Note 2: No work shall be scheduled on streets or walkways within the City of Tacoma business districts from Thanksgiving Day through New Year’s Day.

Note 3: Sign spacing: Urban low speed 25-30 MPH signs must be placed 100’ apart. Urban high speed 35-40 MPH signs must be placed 300’ apart.
A LIGHTED BARRICADE OR REFLECTIVE TAPE SHALL BE INSTALLED ON THE LEADING EDGE OF THE DUMPSTER.

TRAFFIC CONTROL FOR A PORTABLE DUMPSTER

☐ APPROVED BY: ____________________________ DATE: ______________
☐ APPROVED WITH CONDITIONS BY: ____________________________ DATE: ______________

START TRAFFIC CONTROL SET UP DATE: _______ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _______ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME:

MUST BE OUT OF THE ROAD BY DATE & TIME:

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<td>327</td>
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</tr>
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NUMBER OF CHANNELIZATION DEVICES (CONES)

OFFSET CONES 1 FOOT MAXIMUM

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NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS Dropped OR Tracker BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING. URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 300' APART.
TRAFFIC CONTROL
FOR MOVING VAN

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: __________________________ DATE: ___________

START TRAFFIC CONTROL SET UP DATE: ___________ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: ___________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS FOR CONE PATTERN
(All minimums)

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NUMBER OF CHANNELIZATION DEVICES (CONES)
Offset cones 1 foot maximum.

NOTE 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc., as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

NOTE 2: No work shall be scheduled on streets or walkways within the city of Yuma business districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign spacing: Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 350' apart.
NOTE:
PEDESTRIAN WALKWAYS SHALL BE A MINIMUM OF 5 FEET WIDE.

TOE RAIL ON RAMP ENTRANCE AND BARRICADE TOE RAIL SHALL HAVE NO GAPS AND BE PARALLEL.

SEE BYPASS RAMP DETAIL FOR PROPER CONSTRUCTION OF RAMP TO ALLOW FOR PEDESTRIAN AND DISABILITY ACCESS.

BYPASS WALKWAY FOR PEDESTRIANS

☐ APPROVED BY: ____________________________ DATE: ____________________________

☐ APPROVED WITH CONDITIONS BY: ____________________________ DATE: ____________________________

START TRAFFIC CONTROL SET UP DATE: ___________ OFF PEAK 9:00 AM WEEKDAYS

START TRAFFIC CONTROL SET UP DATE & TIME:

MUST BE OUT OF THE ROAD BY DATE: ___________ OFF PEAK 3:30 PM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE & TIME:

EVENING AND WEEKENDS ONLY

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

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NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

NOTE 1: Maintain local access and protected walkways at all times. Provide and maintain barriers, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or leaving the work site. Failure to comply will result in a stop work order and/or citation.

NOTE 2: No work shall be scheduled on streets or walkways within the city of Indiana business districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign spacing. Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 300' apart.
RAMP LANDING SHALL BE 1" X 5' X 5' (MIN) AND FLUSH WITH THE TOP OF THE CURB

RAMP SHALL BE 1" X 5' X 6' (MIN) AND HAVE A 600 POUND LOAD CAPACITY MIN.

NOTES:
1. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
2. ADA ACCOMMODATIONS MUST BE ADDRESSED AND CONSIDERED FOR ALL WORK OPERATIONS. EXISTING ADA FACILITIES MUST BE MAINTAINED.

ALLOW FOR STORM DRAINAGE IN GUTTER LINE

PEDESTRIAN BYPASS RAMPS
FOR TEMPORARY TRAFFIC CONTROL
MINIMUM STANDARDS

APPROVED BY: __________________________ DATE: __________________________
APPROVED WITH CONDITIONS BY: __________________________ DATE: __________________________

START TRAFFIC CONTROL SET UP DATE: ___________ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: ___________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
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(All minimums)

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Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRIERS, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS, DROPPED OR TRASHED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/or CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF INDIANAPOLIS BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 120' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.
NOTES:
1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. MAINTAIN A MINIMUM OF 48" FOR A PEDESTRIAN PATH.
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED.

LEGEND

TEMPORARY SIGN LOCATION
CHANNELIZING DEVICES
PEDESTRIAN CHANNELIZING DEVICES
TEMPORARY PEDESTRIAN RAMP FOR SIDEWALKS

INTERSECTION PEDESTRIAN TRAFFIC CONTROL

NOT TO SCALE
Sample setup diagram with notes:

- Sidewalk Closure
- Type 2 barricades shall be placed across the full width of the closed sidewalk.
- 1x6 in. high board attached to barricade; see STP plan for details.
- Sidewalk closed on the other side.

Table: Merging Taper Lengths for Cone Pattern (All Minimums)

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Note 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per Manual on Uniform Traffic Control Devices at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

Note 2: No work shall be scheduled on streets or walkways within the city of Tacoma business districts from Thanksgiving Day through New Year's Day.

Note 3: Sign spacing: Urban low speed 25-30 mph signs must be placed 100' apart. Urban high speed 35-40 mph signs must be placed 300' apart.
SIDEWALK/ PARKING CLOSURE

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: ________________________ DATE:_____________________

START TRAFFIC CONTROL SET UP DATE:_________OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE:_________OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME:

MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS FOR CONE PATTERN
(All minimums)

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OFFSET CONES 1 FOOT MAXIMUM

NUMBER OF CHANNELIZATION DEVICES (CONES)

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC. AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF PACIFICA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.
A flagger must be with the surveyor to direct turning traffic with the signal indications.

SURVEY
TWO LANE ARTERIAL INTERSECTION

☐ APPROVED BY: ___________________________ DATE: ____________

☐ APPROVED WITH CONDITIONS BY: ______________ DATE: ____________

START TRAFFIC CONTROL SET UP DATE: ____________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: ____________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
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(All minimums)

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NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum

NOTE 1: Maintain local access protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

NOTE 2: No work shall be scheduled on streets or walkways within the City of Tacoma business districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign Spacing. Urban low speed 25-30 MPH signs must be placed 120' apart. Urban high speed 35-40 MPH signs must be placed 150' apart.
SURVEY
TWO LANE ARTERIAL
MID-BLOCK

☐ APPROVED BY: ____________________________ DATE: ____________

☐ APPROVED WITH CONDITIONS BY: ____________________________ DATE: ____________

START TRAFFIC CONTROL SET UP DATE: ____________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: ____________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY
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NOTE 2: No work shall be scheduled on streets or walkways within the city of Tacoma business districts from Thanksgiving Day through New Year's Day.

NOTE 3: Sign spacing: Urban low speed 25-30 MPH signs must be placed 100' apart. Urban high speed 35-40 MPH signs must be placed 150' apart.
TRAFFIC CONTROL RECOMMENDATIONS

☐ APPROVED BY:
☐ APPROVED WITH CONDITIONS BY: __________________________ DATE: __________________________

START TRAFFIC CONTROL SET UP DATE: ______ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: ______ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

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Note 2: No work shall be scheduled on streets or walkways within the city of Tacoma business districts from Thanksgiving Day through New Year’s Day.

Note 3: Sign Spacing. Urban low speed 25-30 MPH signs must be placed 120' apart. Urban high speed 35-40 MPH signs must be placed 300' apart.
SAMPLE SETUP

TRAFFIC CONTROL RECOMMENDATIONS

☐ APPROVED BY: ___________________________ DATE: __________

☑ APPROVED WITH CONDITIONS BY: ___________________________ DATE: __________

START TRAFFIC CONTROL SET UP DATE: __________ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: __________ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

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OFFSET CONES 1 FOOT MAXIMUM

NUMBER OF CHANNELIZATION DEVICES (CONES)

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TRAFFIC CONTROL RECOMMENDATIONS

☐ APPROVED BY: ____________________________ DATE: ____________

☐ APPROVED WITH CONDITIONS BY: ____________________________ DATE: ____________

START TRAFFIC CONTROL SET UP DATE: _______ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _______ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

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MUST BE OUT OF THE ROAD BY DATE & TIME: ____________________________

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MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

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<th>LANE WIDTH</th>
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<tr>
<td>NUMBER OF CHANNELIZATION DEVICES (CONES)</td>
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<tr>
<td>Offset cones 1 foot maximum</td>
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NOTE 1: Maintain local access and protected walkways at all times. Provide and maintain barricades, signs, lights, etc. as per "Manual on Uniform Traffic Control Devices" at all times. Streets and walkways shall be kept clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in a stop work order and/or citation.

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**Traffic Control Recommendations**

- Approved by: ____________________________ Date: ____________________________

- Approved with conditions by: ____________________________ Date: ____________________________

- Start traffic control set up date: __________ off peak 9:00 AM weekdays

- Must be out of the road by date: __________ off peak 3:30 PM weekdays

- Evening and weekends only

- Start traffic control set up date & time: ____________________________

- Must be out of the road by date & time: ____________________________

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### Merging Taper Lengths

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**Note 3:** Sign spacing: Urban low speed 25–30 MPH signs must be placed 100' apart. Urban high speed 35–40 MPH signs must be placed 150' apart.
TRAFFIC CONTROL RECOMMENDATIONS

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☐ APPROVED WITH CONDITIONS BY: __________________________ DATE: __________________________

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START TRAFFIC CONTROL SET UP DATE & TIME:
MUST BE OUT OF THE ROAD BY DATE & TIME:

MERGING TAPER LENGTHS FOR CONE PATTERN
(All minimums)

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TRAFFIC CONTROL
RECOMMENDATIONS

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### Traffic Control Recommendations

- **Approved by:**
- **Approved with conditions by:**
- **Date:**

#### Merging Taper Lengths for Cone Pattern (All minimums)

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#### Number of Channelization Devices (Cones)

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15th STREET TRANSIENT MOORAGE DOCK REPLACEMENT

STRUCTURAL CALCULATIONS

Prepared By:
KPFF Consulting Engineers
2407 N 31st St, Suite 100
Tacoma, WA 98407
(253)396-0150

Prepared For:
City of Tacoma
Public Works Department
747 Market St Room 544
Tacoma, WA 98402
Contact: Darius Thompson

KPFF PROJECT NO. 1900152
15th STREET TRANSIENT MOORAGE DOCK REPLACEMENT

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2. Applied Loading and Structural Model
   a. Load Cases and Combinations
   b. 3D SAP2000 Model
   c. Superimposed Dead Loads
   d. Live Loads
   e. Wind Loads
   f. Seismic Loads

3. Member Demands and Capacities
   a. Piling
   b. Stringers
   c. Cross Beams
   d. Decking
   e. Tie-Rods

4. Connection Design
   a. Stringer-to-Bulkhead Connections
   b. Stringer-to-Cross Beam Connections
   c. Gangway Plate-to-Stringer Connections
   d. Tie-Rod Gusset Plates

5. Appendix
   a. Geotechnical Report
15th STREET TRANSIENT MOORAGE DOCK REPLACEMENT

1. Site Bathymetry and Geotechnical Recommendations

Existing site bathymetry and geotechnical parameters for design provided in design report "Geotechnical Engineering Services Report" for 15th Street Transient Moorage Dock Replacement, Tacoma, Washington, dated April 13, 2020 by GeoEngineers.

LPILE parameters for soil-pile interaction were adopted to establish an equivalent depth-to-fixity model in the structural analysis program SAP2000. Required member strengths for all load combinations were determined from the SAP2000 model (following) to evaluate member demand-to-capacity ratios.

The following pages in this section articulate the site bathy/survey elevations adopted for design, and the depth-to-fixity iterations performed on the piling between LPILE and SAP2000 until the depth-to-fixity equivalent model converges in stiffness with the single LPILE model that represents the full nonlinear behavior of the soil.
Ian and Sean,

The table below summarizes recommended L-Pile parameters for preliminary analyses. The soil properties are based on what was shown on the bulkhead wall plans you provided yesterday. We think this is a good place to start and is reasonably conservative for preliminary analyses. The soil unit thicknesses are based on what is described on the bulkhead plans and our review of the boring log from the nearby condo complex.

We assumed saturated conditions throughout the soil profile.

<table>
<thead>
<tr>
<th>Soil Unit</th>
<th>Elevation Range (NGVD29)</th>
<th>L-Pile Soil Type</th>
<th>Effective Unit Weight (pcf)</th>
<th>Friction Angle (degrees)</th>
<th>K (pci)</th>
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<tr>
<td>Fill/Alluvium</td>
<td>Mudline to -20</td>
<td>Sand (Reese)</td>
<td>58</td>
<td>28</td>
<td>20</td>
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<td>Sand (Reese)</td>
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</table>

Let us know if you have any questions or need some additional information.

Thanks,

Brett

---

Disclaimer: Any information, conclusions and recommendations in this email correspondence and/or attachments, for the subject project, are preliminary and subject to change until confirmed or revised, in a formal written document, which will be submitted under separate cover. The information, conclusions and recommendations contained in our forthcoming document will be covered as appropriate, by the seal of a registered professional who had the responsibility of overseeing and reviewing our evaluation for the subject project. The Principal or Associate in charge of our services for this project, or an equally qualified P/A, has reviewed and approved the information contained in this e-mail correspondence. If a final document in any electronic form, facsimile or copy of the original document is attached to this email, it is provided for convenience; the original document is stored by GeoEngineers, Inc. electronically or in hard copy and will serve as the official document of record.
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<th>SFD (m)</th>
<th>UPLDA (m)</th>
<th>SHEAR (k)</th>
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15th STREET TRANSIENT MOORAGE DOCK REPLACEMENT

Load Cases and Combinations

LRFD design per IBC 2018 and ASCE 7-16

Dead: Self-weight of all permanently installed components

Live: 100psf uniform

Wind: 110mph wind speed, risk category II

Snow: 20psf, risk category II

EQ: ASCE 7-10, risk category II, seismic design category D

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<tr>
<th>COMBO</th>
<th>DEAD</th>
<th>LIVE</th>
<th>WIND</th>
<th>SNOW</th>
<th>EQ-X</th>
<th>EQ-Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>STR 1</td>
<td>1.4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>STR 2</td>
<td>1.2</td>
<td>1.6</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>STR 3A</td>
<td>1.2</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
<td>1.6</td>
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</tr>
<tr>
<td>STR 3B</td>
<td>1.2</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
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<td>STR 3C</td>
<td>1.2</td>
<td>0.5</td>
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<tr>
<td>STR 4A</td>
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<td>0.5</td>
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<td>STR 4B</td>
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<td>-1</td>
<td>0.5</td>
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<td>0</td>
</tr>
</tbody>
</table>

Note: EQ-X governs over wind-x in all combinations due to negligible sail area
Typical Steel Railing Elevation

3D SAP2000 Model Superimposed Dead Loads

Use 40 lb/ft to account for miscellaneous components not explicitly calculated.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight (lb)</th>
<th>Quantity</th>
<th>Length (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; STD Pipe</td>
<td>145.7</td>
<td>1.9</td>
<td>3.8</td>
</tr>
<tr>
<td>1/4&quot; Pipe Horiz Vert</td>
<td>90.8</td>
<td>3.3</td>
<td>2.0</td>
</tr>
<tr>
<td>30.0</td>
<td>3.3</td>
<td>4.8</td>
<td>2.7</td>
</tr>
<tr>
<td>15.6</td>
<td>7.6</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Guardrail Dead Load - 20' Bolted-to-Bolted Segment
3D SAP2000 Model Superimposed Dead Loads

GUARDRAIL DEAD LOADING
See drawing sheet S10 for maximum service-level reactions from gangway to dock
See drawing sheet S10 for maximum service-level reactions from gangway to dock.
Wind Loading

Per IBC 2015 and ASCE 7-10

Wind: 110mph wind speed, risk category II

Approximate sail height \( H = 62'' \)
Conservatively ignore open areas in guardrail system

\[ K_z = 1.08 \] (20ft above MLLW)
\[ K_{zt} = 1.0 \]
\[ K_d = 0.85 \] (solid freestanding walls)
\[ V = 110 \] (risk category II)

\[ q_z = 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot V^2 \text{ psf} = 28.436 \text{ psf} \]
\[ q_z \cdot 62 \text{ in} = 146.919 \text{ plf} \]

velocity pressure coefficient, exposure category D

topographic factor

wind directionality factor

basic wind speed, ASCE 7

velocity pressure

linear load based on sail area height
See drawing sheet S10 for maximum service-level reactions from gangway to dock.
15th STREET TRANSIENT MOORAGE DOCK REPLACEMENT

EQ Loading

Per IBC 2015 and ASCE 7-10. SEA U.S. Seismic Design Maps for risk category II and seismic design category D response spectrum parameters

Latitude, Longitude: 47.24993953, -122.43383143

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F_p</td>
<td>1.293</td>
<td>MCE_p ground motion, (for 0.2 second period)</td>
</tr>
<tr>
<td>F_s</td>
<td>0.504</td>
<td>MCE_p ground motion, (for 1.0s period)</td>
</tr>
<tr>
<td>F_MS</td>
<td>1.293</td>
<td>Site-modified spectral acceleration value</td>
</tr>
<tr>
<td>F_M1</td>
<td>0.756</td>
<td>Site-modified spectral acceleration value</td>
</tr>
<tr>
<td>F_D5</td>
<td>0.862</td>
<td>Numeric seismic design value at 0.2 second SA</td>
</tr>
<tr>
<td>F_D1</td>
<td>0.504</td>
<td>Numeric seismic design value at 1.0 second SA</td>
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<table>
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<tr>
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<tr>
<td>GDC</td>
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<tr>
<td>f_a</td>
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<td>Site amplification factor at 0.2 second</td>
</tr>
<tr>
<td>f_v</td>
<td>1.5</td>
<td>Site amplification factor at 1.0 second</td>
</tr>
<tr>
<td>PGA</td>
<td>0.5</td>
<td>MCE_p peak ground acceleration</td>
</tr>
<tr>
<td>F_PGA</td>
<td>1</td>
<td>Site amplification factor at PGA</td>
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<tr>
<td>PGA_m</td>
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<td>Site modified peak ground acceleration</td>
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<td>T_EL</td>
<td>6</td>
<td>Long-period transition period in seconds</td>
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<tr>
<td>SaRT</td>
<td>1.293</td>
<td>Probabilistic risk-targeted ground motion, (0.2 second)</td>
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<tr>
<td>SaUH</td>
<td>1.297</td>
<td>Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration</td>
</tr>
<tr>
<td>SaD</td>
<td>1.8</td>
<td>Factored deterministic acceleration value, (0.2 second)</td>
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<td>S1RT</td>
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<td>Probabilistic risk-targeted ground motion, (1.0 second)</td>
</tr>
<tr>
<td>S1UH</td>
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<td>Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.</td>
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<tr>
<td>S1D</td>
<td>0.8</td>
<td>Factored deterministic acceleration value, (1.0 second)</td>
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<tr>
<td>PGA_d</td>
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<td>Factored deterministic acceleration value, (Peak Ground Acceleration)</td>
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<tr>
<td>C_Ea</td>
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<td>Mapped value of the risk coefficient at short periods</td>
</tr>
<tr>
<td>C_E1</td>
<td>0.958</td>
<td>Mapped value of the risk coefficient at a period of 1 s</td>
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</table>
15th STREET TRANSIENT MOORAGE DOCK REPLACEMENT

EQ Loading

Per IBC 2015 and ASCE 7-10. SEA U.S. Seismic Design Maps for risk category II and seismic design category D response spectrum parameters
EQ Loading

SAP NODAL ANALYSIS FOR FUNDAMENTAL PERIOD

Deformed Shape (MODAL) - Mode 1: T = 0.29996, f = 3.3333

NOTE: FUNDAMENTAL PERIOD T < 0.5 sec.
3. Member Demands and Capacities
   a. Piling
   b. Stringers
   c. Cross Beams
   d. Decking
   e. Tie-Rods
3. Member Demands and Capacities
   a. Piling

Piling (onshore and offshore rows) are analyzed for combined axial-moment demands from all load cases in 3D model. The effective length method is used for stability, assuming a worst-case K factor = 2.0. The unbraced length is taken as the depth-to-fixity determined for each pile row, based on iterations between SAP2000 and LPILE accounting for nonlinear soil properties.

Pile capacities, including P-M interactive effects, are assessed based on AISC 360. All demand axial-moment points are shown to fall within their respective capacity curves.
Steel Pipe Pile PM Interaction Strength - Offshore Piles
Worksheet to generate axial-moment interaction strength for steel pipe piles

References:
1. AISC Steel Construction Manual

Section Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Value</th>
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<tbody>
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<td>in</td>
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<tr>
<td>t</td>
<td>in</td>
<td>0.38</td>
</tr>
<tr>
<td>L</td>
<td>in</td>
<td>372.00</td>
</tr>
<tr>
<td>I</td>
<td>in^4</td>
<td>372.76</td>
</tr>
<tr>
<td>A</td>
<td>in^2</td>
<td>16.05</td>
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<tr>
<td>r</td>
<td>in</td>
<td>4.82</td>
</tr>
<tr>
<td>E</td>
<td>ksi</td>
<td>29000.00</td>
</tr>
<tr>
<td>F_y</td>
<td>ksi</td>
<td>50.00</td>
</tr>
<tr>
<td>F_u</td>
<td>ksi</td>
<td>70.00</td>
</tr>
</tbody>
</table>

Outside Pile Diameter
Wall Thickness
Unbraced Length
Moment of Inertia
Cross-Section Area
Radius of Gyration
Elastic Modulus
Yield Strength, ASTM 252 Gr 3
Ultimate Strength, ASTM 252 Gr 3

Design Compressive Strength, \( \phi P_c \) (AISC Sect. E)
Valid for members without slender elements

General
\[ \phi_c = 0.90 \]
Resistance Factor for Compression

Slenderness
\[ \frac{D}{t} = 37.33 \text{ in/in} \]
Limit \( 0.11E/F_y \) \[ 63.80 \text{ ksi/ksi} \]
Limiting Slenderness Ratio
\[ K = 2.00 \]
Effective Length Factor
\[ KL/r = 154.39 \text{ in/in} \]
Effective Slenderness Ratio

NONSLENDER

Flexural Buckling
\[ F_e = \frac{\pi^2 E}{(KL/r)^2} = 12.01 \text{ ksi} \]
Elastic Buckling Stress
\[ \text{Limit} 4.71\sqrt{E/F_y} = 113.43 \text{ in} \]
Critical Stress Case
\[ F_{cr} = 0.658(F_y/F_e)F_y = 8.75 \text{ ksi} \]
Critical Stress Case (a)
\[ F_{cr} = 0.877F_e = 10.53 \text{ ksi} \]
Critical Stress Case (b)

Use Case (b) APPLIES

\[ P_n = F_{cr}A_g = 169.04 \text{ kip} \]
Nominal Compressive Strength
\[ \phi_cP_n = 152.13 \text{ kip} \]
Factored Compressive Strength
Steel Pipe Pile PM Interaction Strength - Offshore Piles
Worksheet to generate axial-moment interaction strength for steel pipe piles

**Flexural Capacity (AISC Sect. F8)**
For round HSS having D/t ratios of less than 0.45E/Fy

**General**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \phi_b )</td>
<td>0.90</td>
<td>Resistance Factor for Flexure</td>
</tr>
<tr>
<td>D/t</td>
<td>37.33 in/in</td>
<td>Width-to-Thickness Ratio</td>
</tr>
<tr>
<td>Limit 0.45E/Fy</td>
<td>261.00 ksi/ksi</td>
<td>Solution Applicability</td>
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**Yielding**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
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<tbody>
<tr>
<td>Z</td>
<td>69.63 in(^3)</td>
<td>Plastic Section Modulus</td>
</tr>
<tr>
<td>( M_p = F_y \times Z )</td>
<td>3481.64 kip-in</td>
<td>Plastic Moment Capacity</td>
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**Local Buckling**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
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<tbody>
<tr>
<td>Limit 0.07E/Fy</td>
<td>40.60 ksi/ksi</td>
<td>Compact Section Limit</td>
</tr>
<tr>
<td>Limit 0.31E/Fy</td>
<td>179.80 ksi/ksi</td>
<td>Noncompact Section Limit</td>
</tr>
<tr>
<td>S</td>
<td>53.25 in(^3)</td>
<td>Elastic Section Modulus</td>
</tr>
<tr>
<td>( M_n = (0.021E/(D/t)+F_y) \times S )</td>
<td>3531.24 kip-in</td>
<td>Noncompact Flexural Strength</td>
</tr>
<tr>
<td>( F_{cr} = 0.33E/(D/t) )</td>
<td>256.34 ksi</td>
<td>Critical Stress</td>
</tr>
<tr>
<td>( M_n = F_{cr} \times S )</td>
<td>NA kip-in</td>
<td>Slender Flexural Strength</td>
</tr>
<tr>
<td>( M_n )</td>
<td>NO FLB kip-in</td>
<td>Applicable LB Strength</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( M_n = \min{Yielding, LB} )</td>
<td>3481.64 kip-in</td>
<td>Nominal Flexural Strength</td>
</tr>
<tr>
<td>( \phi_b \times M_n )</td>
<td>3133.48 kip-in</td>
<td>Factored Flexural Strength</td>
</tr>
</tbody>
</table>

**Tension Capacity (AISC Sect. D)**

**General**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \phi_{ty} )</td>
<td>0.9</td>
<td>Resistance Factor for Tension Yielding</td>
</tr>
<tr>
<td>( \phi_{tr} )</td>
<td>0.75</td>
<td>Resistance Factor for Tension Rupture</td>
</tr>
</tbody>
</table>

**Yielding in Gross Section**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( P_{ny} = F_y \times A_g )</td>
<td>802.58 kip</td>
<td>Tensile Strength for Yielding</td>
</tr>
<tr>
<td>( \phi_{ty} \times P_{ny} )</td>
<td>722.32 kip</td>
<td>Factored Strength for Yielding</td>
</tr>
</tbody>
</table>
Steel Pipe Pile PM Interaction Strength - Offshore Piles
Worksheet to generate axial-moment interaction strength for steel pipe piles

Rupture in Net Section

<table>
<thead>
<tr>
<th>U</th>
<th>16.05 in²</th>
<th>Shear Lag Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>A_n</td>
<td>16.05 in²</td>
<td>Net Area</td>
</tr>
<tr>
<td>A_e = A_n * U</td>
<td>16.05 in²</td>
<td>Effective Net Area</td>
</tr>
<tr>
<td>P_nr = F_u * A_e</td>
<td>1123.61 kip</td>
<td>Tensile Strength for Rupture</td>
</tr>
<tr>
<td>\phi_P * P_{nr}</td>
<td>842.71</td>
<td>Factored Strength for Rupture</td>
</tr>
</tbody>
</table>

\[ \phi_P P_n = \min\{\phi_{ty} * P_{ny} / \phi_{tu} * P_{tu}\} \]
\[ 722.32 \text{ kip} \]
Factored Tensile Strength

Axial-Flexure Interaction (AISC Sect. H)

When \[ P_u / \phi P_n \geq 0.2 \]
\[ P_u / \phi P_n + 8 / 9 \times (M_u / \phi M_n) \leq 1.0 \]

When \[ P_u / \phi P_n < 0.2 \]
\[ P_u / (2 \phi P_n) + M_u / \phi M_n \leq 1.0 \]
Load Combo | Axial Demand (kip) | Moment Demand (kip-in) |
------------|-------------------|------------------------|
STR1        | -9.79             | 0.00                   |
STR2        | -54.30            | 0.00                   |
STR3A       | -52.12            | 0.00                   |
STR3B       | -40.95            | 73.01                  |
STR3C       | -40.95            | 73.01                  |
STR4A       | -29.73            | 146.03                 |
STR4B       | -29.73            | 146.03                 |
STR5A       | -24.83            | 77.62                  |
STR5B       | -24.83            | 259.84                 |
STR6A       | -6.29             | 146.03                 |
STR6B       | -6.29             | 146.03                 |
STR7A       | -5.09             | 77.62                  |
STR7B       | -5.09             | 259.84                 |

Notes:
1) Axial compression is negative
2) Axial tension is positive
3) Bidirectional moment demands combined by SRSS
4) See following pages for derivations of
Steel Pipe Pile PM Interaction Strength - Upland Piles
Worksheet to generate axial-moment interaction strength for steel pipe piles

References:
1. AISC Steel Construction Manual

Section Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>14.00 in</td>
</tr>
<tr>
<td>t</td>
<td>0.38 in</td>
</tr>
<tr>
<td>L</td>
<td>264.00 in</td>
</tr>
<tr>
<td>I</td>
<td>372.76 in$^4$</td>
</tr>
<tr>
<td>A</td>
<td>16.05 in$^2$</td>
</tr>
<tr>
<td>r</td>
<td>4.82 in</td>
</tr>
<tr>
<td>E</td>
<td>29000.00 ksi</td>
</tr>
<tr>
<td>F_y</td>
<td>50.00 ksi</td>
</tr>
<tr>
<td>F_u</td>
<td>70.00 ksi</td>
</tr>
</tbody>
</table>

Design Compressive Strength, $\phi_P$ (AISC Sect. E)
Valid for members without slender elements

General

$\phi_c$ = 0.90 | Resistance Factor for Compression

Slenderness

$D/t$ = 37.33 in/in | Width-to-Thickness Ratio
Limit $0.11E/F_y$ = 63.80 ksi/ksi | Limiting Slenderness Ratio
K = 2.00 | Effective Length Factor
KL/r = 109.57 in/in | Effective Slenderness Ratio

NONSLENDER

Flexural Buckling

$F_e = \pi^2E/(KL/r)^2$ = 23.84 ksi | Elastic Buckling Stress
Limit $4.71\sqrt{E/F_y}$ = 113.43 in | Critical Stress Case
$F_{cr} = 0.658(F_y/F_e)*F_y$ = 20.79 ksi | Critical Stress Case (a)
$F_{cr} = 0.877F_e$ = 20.91 ksi | Critical Stress Case (b)

Case (a) APPLIES

Nominal Compressive Strength

$P_n = F_{cr}A_b$ = 333.64 kip

Factored Compressive Strength

$\phi_c^*P_n$ = 300.28 kip
Steel Pipe Pile PM Interaction Strength - Upland Piles
Worksheet to generate axial-moment interaction strength for steel pipe piles

**Flexural Capacity (AISC Sect. F8)**
For round HSS having D/t ratios of less than 0.45E/Fy

<table>
<thead>
<tr>
<th>General</th>
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<tr>
<td>( \phi_b )</td>
<td>0.90</td>
</tr>
<tr>
<td>D/t</td>
<td>37.33 in/in</td>
</tr>
<tr>
<td>Limit 0.45E/F(_y)</td>
<td>261.00 ksi/ksi</td>
</tr>
<tr>
<td><strong>Yielding</strong></td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>69.63 in(^3)</td>
</tr>
<tr>
<td>( M_p = F_y * Z )</td>
<td>3481.64 kip-in</td>
</tr>
<tr>
<td><strong>Local Buckling</strong></td>
<td></td>
</tr>
<tr>
<td>Limit 0.07E/F(_y)</td>
<td>40.60 ksi/ksi</td>
</tr>
<tr>
<td>Limit 0.31E/F(_y)</td>
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</tr>
<tr>
<td>S</td>
<td>53.25 in(^3)</td>
</tr>
<tr>
<td>( M_n = (0.021E/(D/t)+F_y)*S )</td>
<td>3531.24 kip-in</td>
</tr>
<tr>
<td>( F_c = 0.33E/(D/t) )</td>
<td>256.34 ksi</td>
</tr>
<tr>
<td>( M_n = F_c * S )</td>
<td>NA kip-in</td>
</tr>
<tr>
<td>( M_n )</td>
<td>NO FLB kip-in</td>
</tr>
<tr>
<td><strong>M(_n) = min{Yielding, LB}</strong></td>
<td>3481.64 kip-in</td>
</tr>
<tr>
<td>( \phi_b * M_n )</td>
<td>3133.48 kip-in</td>
</tr>
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**Tension Capacity (AISC Sect. D)**

<table>
<thead>
<tr>
<th>General</th>
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<tbody>
<tr>
<td>( \phi_{ty} )</td>
<td>0.9</td>
</tr>
<tr>
<td>( \phi_{tr} )</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Yielding in Gross Section</strong></td>
<td></td>
</tr>
<tr>
<td>( P_{ny} = F_y * A_g )</td>
<td>802.58 kip</td>
</tr>
<tr>
<td>( \phi_{ty} * P_{ny} )</td>
<td>722.32 kip</td>
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</table>
Steel Pipe Pile PM Interaction Strength - Upland Piles
Worksheet to generate axial-moment interaction strength for steel pipe piles

Rupture in Net Section

<table>
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<tr>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
<th>Description</th>
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<td>Shear Lag Factor</td>
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$\phi_P P_n = \min(\phi_{tr} * P_{ny}, \phi_{tr} * P_{nr}) = 722.32$ kip
Factored Tensile Strength

Axial-Flexure Interaction (AISC Sect. H)

When $P_u/\phi P_n >= 0.2$

$P_u/\phi P_n + 8/9(M_u/\phi M_n) <= 1.0$

When $P_u/\phi P_n < 0.2$

$P_u/(2\phi P_n) + M_u/\phi M_n <= 1.0$
Notes:
1) Axial compression is negative
2) Axial tension is positive
3) Bidirectional moment demands combined by SRSS
4) See following pages for derivations of
3. Member Demands and Capacities
   b. Stringers

Dock stringers are 6.75"x16.5" 24F-V8 DF glued-laminated beams. Adjusted strength capacities are determined for the members, and compared with factored demand stresses from 3D model.

Demands and capacities for each load combination are assessed individually in order to accurately reflect time-effect member capacity adjustments.
15th Street Moorage Dock Replacement
Stringer Adjusted Strengths

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3. Member Demands and Capacities
   c. Cross Beams

Dock cross beams are 6.75"x16.5" 24F-V8 DF glued-laminated beams. Adjusted strength capacities are determined for the members, and compared with factored demand stresses from 3D model.

Demands and capacities for each load combination are assessed individually in order to accurately reflect time-effect member capacity adjustments.
| Combo | \( F_{bx} \) | \( F_b \) | \( C_M \) | \( C_t \) | \( C_L \) | \( C_Y \) | \( C_{fu} \) | \( C_c \) | \( K_f \) | \( \phi_b \) | \( \lambda \) |
|-------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| STR 1 | 2446           | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 0.60      |
| STR 2 | 3262           | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 0.80      |
| STR 3ABC | 3262        | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 0.80      |
| STR 4AB | 4077         | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 1.00      |
| STR 5AB | 4077         | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 1.00      |
| STR 6AB | 4077         | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 1.00      |
| STR 7AB | 4077         | 2400      | 0.80      | 1.00      | 1.00      | 0.98      | 1.00      | 1.00      | -         | 2.54      | 0.85      | 1.00      |

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### D/C RATIO (%)

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### D/C RATIO (%)

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3. Member Demands and Capacities
d. Decking

Dock deck members are nominal 4x12 Hem-Fir #2 lumber. Adjusted strength capacities are determined for the members, and compared with factored demand stresses from 3D model.

Demands and capacities for each load combination are assessed individually in order to accurately reflect time-effect member capacity adjustments.
### 15th Street Moorage Dock Replacement

#### Deck Timber Adjusted Strengths

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<th>$C_l$</th>
<th>$C_L$</th>
<th>$C_F$</th>
<th>$C_{fl}$</th>
<th>$C_l$</th>
<th>$C_r$</th>
<th>$K_f$</th>
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<th>$\lambda$</th>
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5. Appendix
   a. Geotechnical Report
Geotechnical Engineering Services Report

15th Street Transient Moorage Dock Replacement
Tacoma, Washington

for
KPFF Consulting Engineers

April 13, 2020
Geotechnical Engineering Services Report

15th Street Transient Moorage Dock Replacement
Tacoma, Washington

for
KPFF Consulting Engineers

April 13, 2020

GeoEngineers

1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940
Geotechnical Engineering Services Report

15th Street Transient Moorage Dock Replacement
Tacoma, Washington

File No. 0570-169-00

April 13, 2020

Prepared for:

KPFF Consulting Engineers
2704 North 31st Street, Suite 100
Tacoma, Washington 98407

Attention: Ian Frank, PE

Prepared by:

GeoEngineers, Inc.
1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

Brett E. Larabee, PE
Senior Geotechnical Engineer

Lyle J. Stone, PE
Associate Geotechnical Engineer

BEL:US:tt

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Figure 2. Site Plan

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1.0 INTRODUCTION AND PROJECT UNDERSTANDING

This report presents our geotechnical engineering services for the 15th Street Transient Moorage Dock Replacement project. The project site is located on the Foss Waterway at approximately 1199 Dock Street in Tacoma, Washington. A Vicinity Map and Site Plan are provided as Figures 1 and 2, respectively.

We understand that the existing 15th Street Dock was constructed in 1975 and is near the end of its usable life. The City is planning to replace the dock, which will include replacement of the moorage floats, gangway and approach moorage dock (pier). We understand that the existing steel piles used to secure the floats will be left in place and reused. The four existing timber piles that support the approach pier will be removed and replaced with steel pipe piles. Based on our review of the preliminary plans prepared by KPFF dated February 2020, we understand that the replacement piles will be 14-inch diameter open ended piles with a 3/8-inch wall. The existing sheet pile bulkhead at the site will remain in place and be incorporated into the improvements.

Based on our conversations with KPFF and the City of Tacoma (Darius Thompson) in a meeting on April 13, 2020, we understand that the new pier structure will be designed for static and inertial seismic loads only. The kinematic loads and settlement associated with liquefaction, including downdrag loads and lateral spreading loads, will not be considered.

Our services for this project were completed in accordance with the signed agreement for this project dated February 28, 2020. Our specific scope of services is summarized in our proposal dated August 21, 2019.

2.0 SITE CONDITIONS

2.1. Surface Conditions

The project site is located along the west side of the Foss Waterway near the existing “The Fish Peddler” restaurant. The project site is in a pedestrian area that is accessed via the Foss Public Esplanade. There is an existing sheet pile bulkhead at the site with an exposed height on the order of 10 feet. The shoreline slope below the bulkhead is armored with riprap and rocks on the order of 6 to 24 inches near and above the mean low water line. The gradient of the slope appears to be on the order of 1H:1V (Horizontal:Vertical) to 1.5H:1V. The existing dock is L-shaped with the approach pier oriented generally east-west and the floats oriented generally north-south. The approach pier is approximately 35 feet long and 10 feet wide and is constructed of timber. The pier is supported by four timber piles that are located within the intertidal zone. The existing steel gangway leads from the pier to the concrete and wood moorage floats.

2.2. Geologic Setting

We reviewed the geologic map of the Tacoma South 7.5 minute Quadrangle (Troost, in review). The project site is situated on the western edge of the delta formed at the mouth of the Puyallup River as it enters Commencement Bay. West of the project site is downtown Tacoma, which is established on a hillside that is mapped as glacially consolidated soil (glacial till, ice-contact deposits and pre-Fraser glacial sediments). The toe of the hill is about 500 feet from site. Between the base of the hill and the edge of the Foss Waterway, the geologic map indicates that area is underlain by artificial fill. Artificial fill covers much of the ground surface along the Foss Waterway and within the Port of Tacoma. The fill was placed to create usable land around the waterway and port during development of the natural tide flats in the area. Underlying the
fill is native alluvium. In many areas surrounding the port, the alluvial deposits can be hundreds of feet deep; however, based on the proximity of the site to the edge of the delta and adjacent upland area, the contact with glacially consolidated soils is likely within 50 to 60 feet of the ground surface at the project site.

**2.3. Anticipated Soil and Groundwater Conditions**

We did not complete subsurface explorations as part of this study. Our understanding of subsurface conditions at the site is based on our review of explorations completed by GeoEngineers in 2000 and 2006 for the *Esplanade Condominium* complex, which is located southwest of the project site. The locations of the explorations completed for that project (borings and cone penetrometer tests [CPTs]) are shown on the Site Plan. Summary logs for these explorations are provided in Appendix A. The closest boring (B-9) from that study was completed near the northeast corner of the building and is about 200 feet from the 15th Street Dock project location.

The boring log for B-9 indicates that there is approximately 50 feet of loose fill and alluvial soils underlain by dense to very dense glacially consolidated soils. Within the project vicinity, the depth to glacially consolidated soils typically increases towards the east. We suspect that glacially consolidated soils are deeper at the site than what was observed in the referenced explorations. In the area of the new approach pier, when piles will be installed, we estimate that there is likely 50 to 60 feet of alluvial soils above the dense glacial soils.

Fill soils at the site are expected to consist of loose to medium dense sand and silty sand materials. Debris including construction materials and concrete as well as cobbles and boulders could be present within the fill. Alluvial soils at the site are likely comprised of very loose to loose silty sand and sandy silt with some layers of gravel. Gravel is typically observed in the deeper alluvial deposits. We anticipate that underlying glacially consolidated soils at the site will be comprised on dense to very dense silty sand with variable gravel content. Coarse gravel, cobbles and boulders can be present with glacially consolidated soil deposits.

Groundwater levels in the area of pile installation at the site are expected to be tidally influenced and closely follow water elevations in the Foss Waterway.

**3.0 SEISMIC DESIGN CONSIDERATIONS**

**3.1. Seismic Design Approach**

As discussed in the following sections, the project site is likely underlain by potentially liquefiable soils. Liquefaction could result in surface settlements, soil strength loss and movement of the shoreline slopes (lateral spreading). Based on our discussions with the project team and City of Tacoma (Darius Thompson), we understand that the intent of this project is to replace the existing piles “in-kind.” The piles will not be designed to be resilient to liquefaction and lateral spreading loads and are not intended to stabilize or reinforce the existing shoreline slope or bulkhead. We understand that the structure will be designed for inertial earthquake loads.

**3.1.1. Seismic Design Parameters**

We understand that seismic design will be performed in accordance with the 2015 International Building Code (IBC) and American Society of Civil Engineers (ASCE) 7-10. As discussed below, we anticipate that
potentially liquefiable soils are present within the upper 100 feet of the site. This means the site is
categorized as Site Class F and that a site-specific seismic evaluation could be required to determine the
seismic response. However, Section 20.3.1 of ASCE 7-10 indicates that for structures with a fundamental
period of vibration less than or equal to 0.5 seconds, a site-specific seismic evaluation is not required.
Based on our conversations with KPFF, we understand that this criterion will be met for the proposed
structures. As such, we recommend using a response spectrum for Site Class D. Parameters for these
spectral acceleration coefficients are presented in Table 1. If the fundamental period of vibration for the
proposed structure exceeds 0.5 seconds, we should be notified to provide updated recommendations.

<table>
<thead>
<tr>
<th>2015 IBC Seismic Design Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 IBC Seismic Design Parameters</td>
</tr>
<tr>
<td>2015 IBC Seismic Design Parameters</td>
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<tr>
<td>2015 IBC Seismic Design Parameters</td>
</tr>
<tr>
<td>2015 IBC Seismic Design Parameters</td>
</tr>
<tr>
<td>Spectral Response Acceleration at Short Periods (S0)</td>
</tr>
<tr>
<td>Spectral Response Acceleration at 1-Second Periods (S1)</td>
</tr>
<tr>
<td>Site Class</td>
</tr>
<tr>
<td>Design Peak Ground Acceleration (PGA)</td>
</tr>
<tr>
<td>Design Spectral Response Acceleration at Short Periods (SD0)</td>
</tr>
<tr>
<td>Design Spectral Response Acceleration at 1-Second Periods (SD1)</td>
</tr>
</tbody>
</table>

3.1.2. Liquefaction Potential

Liquefaction refers to a condition where vibration or shaking of the ground, usually from earthquake forces,
results in development of excess pore pressures and subsequent loss of strength in the affected soil
deposit. In general, soils that are susceptible to liquefaction include loose to medium dense “clean” to silty
sands that are below the water table.

We did not complete a liquefaction analysis as a part of this study. Based on our experience and review of
nearby explorations we anticipate that existing fill and alluvial soils located below the groundwater table
are potentially liquefiable during the IBC design level earthquake. If the seismic design approach for this
project changes and liquefaction will be considered, we can complete additional analyses to further
investigate liquefaction potential. If liquefaction will be considered in design, we recommend that
explorations be completed at the site.

3.1.3. Lateral Spreading Potential

Lateral spreading related to seismic activity typically involves lateral displacement of large, surficial blocks
of non-liquefied soil when an underlying soil layer loses strength during seismic shaking. Lateral spreading
usually develops in areas where sloping ground or large grade changes (including retaining walls) are
present. At this site, the Foss Waterway slope and existing bulkhead and the likely presence of liquefiable
soils create the potential for lateral spread.

Quantifying the risk of lateral spreading and magnitudes of slope movement that could occur is beyond our
current scope and seismic design approach. At this time, we understand that the proposed improvements
will not be designed to resist lateral spreading forces.
3.1.4. Surface Rupture Potential

According to the Department of Natural Resources Seismic Hazards Map, the project site is in the vicinity of the Tacoma Fault zone. However, because bedrock in this area is covered by hundreds of feet of glacial and alluvial soils, it is unlikely that movement of the fault would result in significant surface rupture at the ground surface.

4.0 GEOTECHNICAL RECOMMENDATIONS FOR PILE DESIGN

4.1. Soil Properties for Lateral Pile Analysis

We understand that KPFF will be evaluating lateral performance of the proposed piles using the software program LPILE (Ensoft 2016). We recommend that the soil profile and properties in Table 2 be used for static and pseudo static (seismic, non-liquified) evaluation of the piles. If piles are spaced at least six pile diameters on center, no reduction of lateral capacity for group action is needed. Due to the uncertainty of the subsurface profile at the site we recommend evaluating a range of contacts between the units to establish a critical or controlling case.

<table>
<thead>
<tr>
<th>Soil Unit</th>
<th>Anticipated Top of Unit (feet NGVD29)</th>
<th>Anticipated Bottom of Unit (feet NGVD29)</th>
<th>LPILE Soil Type</th>
<th>Effective Unit Weight (pcf)</th>
<th>Friction Angle (degrees)</th>
<th>K (pci)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill/Alluvium</td>
<td>Mudline</td>
<td>-7’ and -17’</td>
<td>Sand (Reese)</td>
<td>58</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>Fill/Alluvium</td>
<td>-7’ to -17’</td>
<td>-47’ to -57’</td>
<td>Sand (Reese)</td>
<td>63</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Glacially Consolidated Soil</td>
<td>-47’ and -57’</td>
<td>Extent of analysis</td>
<td>Sand (Reese)</td>
<td>68</td>
<td>34</td>
<td>100</td>
</tr>
</tbody>
</table>

We expect that the depth required to achieve pile toe fixity will control the minimum pile embedment depth for lateral loading conditions. We recommend that we be given the opportunity to review the results of the lateral pile analyses to confirm that the calculated pile deflections and forces are consistent with what should be expected for piles installed into the anticipated soil profile and to comment on pile embedment depths required for toe fixity.

4.2. Axial Pile Resistance

We understand that the piles will be used to resist static axial downward and uplift loads. As discussed above, the piles will not be designed for seismic kinematic loads or used to prevent liquefaction-induced settlement of the structure. Table 3 presents recommended allowable pile resistances at different pile embedment depths for 14-inch diameter by 3/8-inch wall open ended pipe piles assuming static (non-liquefied) conditions. The allowable resistance values include factors of safety of 2 for downward side friction and end bearing, 3 for uplift. The allowable resistances apply to single piles. If piles are spaced at least three pile diameters on center, no reduction of axial capacity for group action is needed.

Depending on the design lateral and vertical loads, vertical resistance and lateral fixity could be achieved within the alluvial soils. However, because there is some uncertainty with regards to the soil profile and
composition at the site, and to reduce the risk of piles settling under static loads, we recommend that at a minimum the piles at the site be tipped into the glacially consolidated soils (about 1 to 2 feet of embedment). For piles tipped into glacially consolidated soils, we expect that vertical settlement of the piles under static loads will be less than 0.5 inch. Additional embedment into the glacially consolidated soils could be required depending on the loading conditions and embedment depths required for lateral fixity. If piles must be installed to greater depths into the dense glacial soils to achieve lateral fixity, the piles may need to be overdriven to achieve the minimum tip elevations. Additionally, this impact driving could produce a soil plug in the tip of the pile, further increasing the driving resistance. The reported overdrive resistances in Table 3 are ultimate resistances and are provided for reference and evaluating pile installation. The overdrive resistances should not be used for design of the piles.

Because there is some uncertainty about the depth to glacially consolidated soils at the site, we recommend that the piles be ordered with extra length so driving can be continued if the glacially consolidated soils are deeper than expected. Alternatively, piles could be spliced if extra length is needed or a test pile could be installed to determine the depth to the glacially consolidated soil.

**TABLE 3. PILE AXIAL RESISTANCES**

<table>
<thead>
<tr>
<th>Pile Embedment into Dense Glacially Consolidated Soils</th>
<th>Anticipated Pile Tip Elevation (NGVD29)</th>
<th>Allowable Axial Resistance</th>
<th>Anticipated Overdrive Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 feet(^1)</td>
<td>-52 to -62 feet</td>
<td>Downward: 61 kips Uplift: 35 kips</td>
<td>Unplugged: 147 kips Plugged: 425 kips</td>
</tr>
<tr>
<td>8 feet(^1)</td>
<td>-55 to -65 feet</td>
<td>Downward: 68 kips Uplift: 40 kips</td>
<td>Unplugged: 165 kips Plugged: 461 kips</td>
</tr>
</tbody>
</table>

Note:

\(^1\) These tip depths will require special considerations for pile installation. See Section 4.4 “Pile Installation” for more details. Pile Installation and Construction Considerations

### 4.3. Anticipated Driving Conditions

The piles will be installed through upper layers of fill and alluvium and into underlying glacially consolidated soils. We expect that it will be necessary to remove or move riprap or rocks on the slope face prior to installing the piles. Based on our experience, debris, rocks and other deleterious materials could be present within the fill at the site. We anticipate that if these materials are encountered more than a few feet below existing grade it will likely not be practical to remove the obstacle to allow for pile advancement. The contractor should be prepared to displace obstacles in the upper 6 feet to advance production piles. For example, the contractor could use a sacrificial pile (spud) to attempt to move or break up the obstacle. This could be aided by use of an impact hammer. If moving the obstacle is not possible, adjustments to the pile location could be necessary and would need to be approved by the engineer.

We expect that alluvial soils at the site will be comprised predominantly of sand and silt. Areas of fine to coarse gravel were also identified within the alluvial soils on the reviewed boring logs. If gravels are encountered, pile installation resistance will likely increase. The contractor should be prepared to encounter these conditions. Alluvial soils can also contain wood debris that may not be practical to remove and could impede pile installation. If wood or other obstacles are encountered within the alluvial soils, we should be notified and can provide recommendations.
Driving resistances are expected to increase rapidly once glacially consolidated soils are encountered. Gravels, cobbles and boulders can be present within these soils and the contractor should be prepared to advance the pile in these conditions.

4.4. Pile Installation

We anticipate that the piles at the site can be installed primarily using a vibratory hammer. Provided gravels and cobbles are not encountered, we expect that up to a few feet of penetration into the glacially consolidated soils will be possible using a vibratory hammer. Additional embedment into the glacially consolidated soils will likely require the use of an impact hammer. As described in Section 4.3 above, an impact hammer could also be necessary or useful if gravel or wood is present within the alluvial soils or if obstacles are present within the fill. We used the APE Amplitude Equation to estimate the minimum hammer size required to vibrate the pipe piles. The amplitude equation is a relatively simple calculation that evaluates whether the eccentric moment of the hammer is sufficient to vibrate the mass of the pile-hammer combination. It does not consider embedment depth or soil conditions. Based on our analysis, we anticipate an APE 20 (900 in-lb eccentric moment) or similar sized hammer is the minimum hammer size capable of vibrating the piles. However, based on our experience we recommend that a larger hammer be considered for vibratory installation especially if plans are to install the piles into glacially consolidated soils using a vibratory hammer. We expect that an APE 50 (1,300 in-lb eccentric moment) or larger hammer will be necessary to vibrate the piles into the glacially consolidated soils.

We completed a preliminary wave equation analysis to estimate the size of impact hammers that could be required install the piles. Based on the results of our analysis, we expect that hammers with rated energies between about 40 kip-feet (similar to a Delmag D-22) and 83 kip-feet (similar to a Delmag D-36) will be needed to impact drive the piles at the overdrive resistances provided above. Our analyses also indicated that driving stresses in the steel piles at the anticipated overdrive resistances could exceed 40 to 50 ksi. Driving stresses in steel piles should typically be limited to 90 percent of the steel yield strength, about 45 ksi for grade 50 steel. If installing the piles more than about 2 feet into the glacially consolidated soils is required, a higher strength steel or a thicker pile wall section should be considered to help reduce the risk of overstressing the piles during installation.

The hammer sizes discussed above are based on our experience and preliminary analyses. The contractor performing the work must consider the subsurface conditions and pile installation considerations described in this report when selecting their pile installation system. The contractor must submit a pile installation plan that at a minimum includes a description of how the work will be completed, considerations for dealing with obstacles, and if an impact hammer will be used, a Wave Equation Analysis that considers the anticipated soil conditions including anticipated overdriving, pile properties and required embedment depths. GeoEngineers should review the contractor’s pile installation submittal before construction.

4.5. Verification of Pile Capacity

As discussed in Section 4.2 above we recommend that at a minimum the piles be tipped into the glacially consolidated soils. Depending on the required axial capacity of the pile and the pile embedment depth achieved in the field compared to the target embedment depth, it may be necessary to verify the axial capacity of the pile. Pile capacity is typically verified in the field by “proofing” the pile using an impact hammer. Depending on the situation, it may also be appropriate to use a Pile Driving Analyzer (PDA) during pile proofing so an analysis using a Case Pile Wave Analysis Program (CAPWAP) can be completed to more accurately calculate the axial capacity of the pile.
We anticipate three possible cases:

- If the design table in this report and lateral pile analyses indicate that embedment into the glacially consolidated soils is not required to achieve the target axial capacity and pile toe fixity, in our opinion it is not necessary to impact drive the piles to proof capacity after they are tipped into the glacially consolidated soils. In our opinion observations made during pile installation will be sufficient to verify that the piles were installed into the glacially consolidated soils as recommended.

- If embedment into the glacially consolidated soils is required to achieve the required axial capacity but the pile is not installed to the target embedment depth, we recommend that the pile capacity be verified by a restrike or PDA and CAPWAP analysis. However, if the target embedment depth within the glacially consolidated soils is achieved, in our opinion verifying pile capacity with a PDA and CAPWAP analysis is not necessary.

- If the design table in this report indicates that the piles will achieve adequate axial capacity without reaching the glacially consolidated soils but embedment into the glacially consolidated soils is required for toe fixity only, in our opinion verifying pile capacity with restrikes or PDA and CAPWAP analysis is not necessary.

GeoEngineers is scheduled to be on site during installation of the piles. Our representative in the field will keep a detailed log during pile installation and will assist in determining if the target embedment depths are achieved. PDA and CAPWAP analyses are typically performed by specialty subconsultants and retained by the contractor.

### 5.0 LIMITATIONS

We have prepared this report for KPFF Consulting Engineers for the 15th Street Transient Moorage Dock Replacement project in Tacoma, Washington. KPFF Consulting Engineers may distribute copies of this report to owner and owner’s authorized agents and regulatory agencies as may be required for the Project.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices for geotechnical engineering in this area at the time this report was prepared. The conclusions, recommendations, and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty, express or implied, applies to the services or this report.

Please refer to Appendix B titled “Report Limitations and Guidelines for Use” for additional information pertaining to use of this report.
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016
Projection: NAD 1983 UTM Zone 10N

Vicinity Map
15th Street Transient Moorage Dock Replacement Project
Tacoma, Washington

Figure 1
E Dock Street

Existing Steel Piles
Securing Mooring
Floats to Remain

(4) Existing Timber Piles to
be Removed and Replaced

I-705 (Northbound)
I-705 (Southbound)
E 15th Street

Figure 2

15th Street Transient Dock Replacement Project
Tacoma, Washington

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial from Microsoft Bing server.
Projection: WA State Plane, S Zone, NAD83, US Foot

Legend

Project Boundary

CPT-01
CPT by GeoEngineers, 2006
B-07
Boring by GeoEngineers, 2000
## SOIL CLASSIFICATION SYSTEM

<table>
<thead>
<tr>
<th>MAJOR DIVISIONS</th>
<th>GROUP SYMBOL</th>
<th>GROUP NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COARSE GRAINED SOILS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAVEL More Than 50% of Coarse Fraction Retained on No. 4 Sieve</td>
<td>GW</td>
<td>WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL</td>
</tr>
<tr>
<td></td>
<td>GP</td>
<td>POORLY-GRADED GRAVEL</td>
</tr>
<tr>
<td></td>
<td>GM</td>
<td>SILTY GRAVEL</td>
</tr>
<tr>
<td></td>
<td>GC</td>
<td>CLAYEY GRAVEL</td>
</tr>
<tr>
<td>SAND More Than 50% of Coarse Fraction Retained on No. 4 Sieve</td>
<td>SW</td>
<td>WELL-GRADED SAND, FINE TO COARSE SAND</td>
</tr>
<tr>
<td></td>
<td>SP</td>
<td>POORLY-GRADED SAND</td>
</tr>
<tr>
<td></td>
<td>SM</td>
<td>SILTY SAND</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>CLAYEY SAND</td>
</tr>
<tr>
<td><strong>FINE GRAINED SOILS</strong></td>
<td>ML</td>
<td>SILT</td>
</tr>
<tr>
<td>SILT AND CLAY Liquid Limit Less Than 50</td>
<td>CL</td>
<td>CLAY</td>
</tr>
<tr>
<td></td>
<td>ORGANIC</td>
<td>OL</td>
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<tr>
<td></td>
<td>INORGANIC</td>
<td>MH</td>
</tr>
<tr>
<td>Silt and clay More Than 50% Passes No. 200 Sieve</td>
<td>CH</td>
<td>CLAY OF HIGH PLASTICITY, FAT CLAY</td>
</tr>
<tr>
<td></td>
<td>ORGANIC</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>PEAT</td>
<td>PT</td>
</tr>
</tbody>
</table>

### NOTES:

1. Field classification is based on visual examination of soil in general accordance with ASTM D2488-90.
2. Soil classification using laboratory tests is in general accordance with ASTM D2487-90.
3. Descriptions of soil density or consistency are based on interpretation of blow count data, visual appearance of soils, and/or test data.

### SOIL MOISTURE MODIFIERS:

- **Dry** - Absence of moisture, dusty, dry to the touch
- **Moist** - Damp, but no visible water
- **Wet** - Visible free water or saturated, usually soil is obtained from below water table
LABORATORY TESTS:
- AL Atterberg limits
- CP Compaction
- CS Consolidation
- DS Direct shear
- GS Grain - size
- %F Percent fines
- HA Hydrometer analysis
- SK Permeability
- SM Moisture content
- MD Moisture and density
- SP Swelling pressure
- TX Triaxial compression
- UC Unconfined compression
- CA Chemical analysis

SOIL GRAPH:
- SM Soil Group Symbol
  (See Note 2)
- Distinct Contact Between
  Soil Strata
- Gradual or Approximate
  Location of Change
  Between Soil Strata
- Water Level
- Bottom of Boring

BLOW-COUNT/SAMPLE DATA:
Blows required to drive a 2.4-inch I.D.
split-barrel sampler 12 inches or
other indicated distances using a
300-pound hammer falling 30 inches.

22 Location of relatively
undisturbed sample
12 Location of disturbed sample
17 Location of sampling attempt
with no recovery

Blows required to drive a 1.5-inch I.D.
(SPT) split-barrel sampler 12 inches
or other indicated distances using a
140-pound hammer falling 30 inches.

10 Location of sample obtained
in general accordance with
Standard Penetration Test
(ASTM D-1586) procedures

26 Location of SPT sampling
attempt with no recovery

Location of grab sample

"P" indicates sampler pushed with
weight of hammer or against weight
of drill rig.

NOTES:
1. The reader must refer to the discussion in the report text, the Key to Boring Log Symbols
and the exploration logs for a proper understanding of subsurface conditions.

2. Soil classification system is included.
### Material Description

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>USCS Group Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>SP</td>
<td>Grayish brown fine to coarse sand with gravel, occasional brick, wood and concrete fragments and a trace of silt (medium dense, moist) (fill)</td>
</tr>
<tr>
<td>1-3</td>
<td>SM</td>
<td>Black silty fine to medium sand with occasional gravel and organic material (very loose, moist) (fill)</td>
</tr>
<tr>
<td>2-3</td>
<td>SM</td>
<td>Black silty fine sand (very loose, wet) (fill?)</td>
</tr>
<tr>
<td>3-5</td>
<td>SP-SM</td>
<td>Black fine sand with silt, occasional wood and shells (loose, wet) (fill?)</td>
</tr>
<tr>
<td>4-3</td>
<td>SP</td>
<td>Black fine sand with a trace of silt (loose, wet)</td>
</tr>
<tr>
<td>5-2</td>
<td>SP-SM</td>
<td>Black fine sand with silt and occasional shells (very loose, wet)</td>
</tr>
<tr>
<td>6-3</td>
<td>SM</td>
<td>Gray silty fine to coarse sand with gravel and occasional shells (very loose, wet)</td>
</tr>
<tr>
<td>7-4</td>
<td>GP-GM</td>
<td>Gray fine to coarse gravel with silt and sand (very loose to loose, wet)</td>
</tr>
</tbody>
</table>

Note: See Figure 4 for explanation of symbols
<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Recovery %</th>
<th>Blown Count</th>
<th>Sample</th>
<th>Graphic Log</th>
<th>USCS Group Symbol</th>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
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<tr>
<td>36</td>
<td>8</td>
<td>15</td>
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<tr>
<td>40</td>
<td>9</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>10</td>
<td>50/4</td>
<td></td>
<td></td>
<td></td>
<td>Tannish brown fine to course gravel with sand and a trace of silt (very dense, wet)</td>
</tr>
<tr>
<td>50</td>
<td>11</td>
<td>51</td>
<td></td>
<td></td>
<td></td>
<td>Reddish brown silt (hard, wet)</td>
</tr>
<tr>
<td>55</td>
<td>12</td>
<td>50/4</td>
<td></td>
<td></td>
<td></td>
<td>Tan and black fine to course gravel with sand and silt (very dense, wet)</td>
</tr>
</tbody>
</table>

Boring completed at a depth of 59.0 feet on 09/07/00. Ground water encountered at an approximate depth of 7.0 feet during drilling.

Note: See Figure 4 for explanation of symbols.
Material Description

**SP**
Grayish brown fine to coarse sand with gravel and a trace of silt (medium dense, moist) (fill)

**ML**
Dark gray silt with sand and occasional brick (medium stiff, moist) (fill)

**SM**
Dark gray silty fine sand with occasional gravel (very loose, wet) (fill?)

**SP-SM**
Dark gray fine sand with silt (medium dense, wet)

**SP**
Black and red fine to medium sand with trace of shells (very loose to loose, wet)

**GP-GM**
Gray fine to coarse gravel with sand and silt (very loose, wet)

**GP-GM**
Grayish tan fine to coarse gravel with sand and silt (very dense, wet)

Boring completed at a depth of 39.0 feet on 09/08/00. Ground water encountered at an approximate depth of 7.5 feet during drilling.

Note: See Figure 4 for explanation of symbols
Material Description

- **SP**: Grayish brown fine to coarse sand with gravel and a trace of silt (medium dense, moist) (fill)
- **ML**: Brown and gray silt with sand, occasional gravel, wood and pottery (very soft to soft, moist) (fill)
- **SM**: Gray silty fine sand (very loose, moist to wet) (fill?)
- **SP**: Dark gray fine sand with a trace of silt (very loose to medium dense, wet)
- **GP-GM**: Dark gray fine to coarse gravel with sand and silt, occasional shells and wood (very loose to loose, wet)

Note: See Figure 4 for explanation of symbols
## Material Description

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Recovery (%)</th>
<th>Sample Count</th>
<th>Sample Description</th>
<th>Moisture (%)</th>
<th>Dry Unit Weight (pcf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td></td>
<td></td>
<td>SP-SM: Dark gray fine to coarse sand with silt, occasional gravel and shells (medium dense, wet)</td>
<td>16</td>
<td>117</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td>CP-GM: Grayish tan fine to coarse gravel with sand and silt (very dense, wet)</td>
<td>12</td>
<td>128</td>
</tr>
</tbody>
</table>

Boring completed at a depth of 59.0 feet on 09/08/00. Ground water encountered at an approximate depth of 10.0 feet during drilling.

Note: See Figure 4 for explanation of symbols.
**Operator:** Brown  
**CPT Date/Time:** 12/27/2006 11:00:14 AM  
**Sounding:** CPT-01  
**Location:** Site 4  
**Cone Used:** DSG0708  
**Job Number:** 6854-003-01  

- **Maximum Depth:** 35.27 feet  
- **Depth Increment:** 0.164 feet

*Soil behavior type and SPT based on data from UBC-1983*  

**Graphs:**

- **Tip Resistance:** Qc TSF  
- **Friction Ratio:** Fs/Qc (%)  
- **Pore Pressure:** Pw PSI  
- **Soil Behavior Type**:
  - Zone: UBC-1983
  - 1: sensitive fine grained
  - 2: organic material
  - 3: clay
  - 4: silty clay to clay
  - 5: clayey silt to silty clay
  - 6: sandy silt to clayey silt
  - 7: silty sand to sandy silt
  - 8: sand to silty sand
  - 9: sand
  - 10: gravelly sand to sand
  - 11: very stiff fine grained (*)
  - 12: sand to clayey sand (*)

**FIGURE A-1**

Northwest Cone Exploration

*FIGURE A-1*
Maximum Depth = 27.23 feet
Depth Increment = 0.164 feet
*Soil behavior type and SPT based on data from UBC-1983
APPENDIX B

Report Limitations and Guidelines for Use
APPENDIX B
REPORT LIMITATIONS AND GUIDELINES FOR USE

This appendix provides information to help you manage your risks with respect to the use of this report.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) rely on professional judgment and opinion to a greater extent than other engineering and natural science disciplines, where more precise and/or readily observable data may exist. To help clients better understand how this difference pertains to our services, GeoEngineers includes the following explanatory “limitations” provisions in its reports. Please confer with GeoEngineers if you need to know more how these “Report Limitations and Guidelines for Use” apply to your project or site.

Geotechnical Services are Performed for Specific Purposes, Persons and Projects

This report has been prepared for KPFF Consulting Engineers and for the Project(s) specifically identified in the report. The information contained herein is not applicable to other sites or projects.

GeoEngineers structures its services to meet the specific needs of its clients. No party other than the party to whom this report is addressed may rely on the product of our services unless we agree to such reliance in advance and in writing. Within the limitations of the agreed scope of services for the Project, and its schedule and budget, our services have been executed in accordance with our Agreement with KPFF Consulting Engineers dated February 28, 2020 and generally accepted geotechnical practices in this area at the time this report was prepared. We do not authorize, and will not be responsible for, the use of this report for any purposes or projects other than those identified in the report.

A Geotechnical Engineering or Geologic Report is based on a Unique Set of Project-Specific Factors

This report has been prepared for 15th Street Dock Transient Moorage Dock Replacement located in Tacoma, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

For example, changes that can affect the applicability of this report include those that affect:

- the function of the proposed structure;
- elevation, configuration, location, orientation or weight of the proposed structure;

1 Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.
composition of the design team; or
- project ownership.

If changes occur after the date of this report, GeoEngineers cannot be responsible for any consequences of such changes in relation to this report unless we have been given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

**Environmental Concerns are Not Covered**

Unless environmental services were specifically included in our scope of services, this report does not provide any environmental findings, conclusions, or recommendations, including but not limited to, the likelihood of encountering underground storage tanks or regulated contaminants.

**Information Provided by Others**

GeoEngineers has relied upon certain data or information provided or compiled by others in the performance of our services. Although we use sources that we reasonably believe to be trustworthy, GeoEngineers cannot warrant or guarantee the accuracy or completeness of information provided or compiled by others.

**Subsurface Conditions Can Change**

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the site, new information or technology that becomes available subsequent to the report date, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. If more than a few months have passed since issuance of our report or work product, or if any of the described events may have occurred, please contact GeoEngineers before applying this report for its intended purpose so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

**Geotechnical and Geologic Findings are Professional Opinions**

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies the specific subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied its professional judgment to render an informed opinion about subsurface conditions at other locations. Actual subsurface conditions may differ, sometimes significantly, from the opinions presented in this report. Our report, conclusions and interpretations are not a warranty of the actual subsurface conditions.

**Geotechnical Engineering Report Recommendations are Not Final**

We have developed the following recommendations based on data gathered from subsurface investigation(s). These investigations sample just a small percentage of a site to create a snapshot of the subsurface conditions elsewhere on the site. Such sampling on its own cannot provide a complete and accurate view of subsurface conditions for the entire site. Therefore, the recommendations included in this report are preliminary and should not be considered final. GeoEngineers’ recommendations can be
finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers cannot assume responsibility or liability for the recommendations in this report if we do not perform construction observation.

We recommend that you allow sufficient monitoring, testing and consultation during construction by GeoEngineers to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes if the conditions revealed during the work differ from those anticipated, and to evaluate whether earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective means of managing the risks associated with unanticipated conditions. If another party performs field observation and confirms our expectations, the other party must take full responsibility for both the observations and recommendations. Please note, however, that another party would lack our project-specific knowledge and resources.

A Geotechnical Engineering or Geologic Report Could Be Subject to Misinterpretation

Misinterpretation of this report by members of the design team or by contractors can result in costly problems. GeoEngineers can help reduce the risks of misinterpretation by conferring with appropriate members of the design team after submitting the report, reviewing pertinent elements of the design team’s plans and specifications, participating in pre-bid and preconstruction conferences, and providing construction observation.

Do Not Redraw the Exploration Logs

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. The logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Photographic or electronic reproduction is acceptable, but separating logs from the report can create a risk of misinterpretation.

Give Contractors a Complete Report and Guidance

To help reduce the risk of problems associated with unanticipated subsurface conditions, GeoEngineers recommends giving contractors the complete geotechnical engineering or geologic report, including these “Report Limitations and Guidelines for Use.” When providing the report, you should preface it with a clearly written letter of transmittal that:

■ advises contractors that the report was not prepared for purposes of bid development and that its accuracy is limited; and

■ encourages contractors to confer with GeoEngineers and/or to conduct additional study to obtain the specific types of information they need or prefer.

Contractors are Responsible for Site Safety on Their Own Construction Projects

Our geotechnical recommendations are not intended to direct the contractor’s procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and adjacent properties.
Biological Pollutants

GeoEngineers’ Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term “Biological Pollutants” includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.
APPENDIX C

PERMITS- ARMY CORP OF ENGINEERS,
CITY OF TACOMA SHORELINE PERMIT
AND HYDRAULIC PROJECT APPROVAL
ARMY CORP OF ENGINEERS PERMIT

Permit will be available July 15, 2022 or sooner

FISH AND WILDLIFE- HYDRAULIC PROJECT APPROVAL PERMIT

Permit will be available July 15, 2022 or sooner
SHORELINE SUBSTANTIAL DEVELOPMENT AND  File No. LU20-0155
SHORELINE CONDITIONAL USE PERMIT FOR:

City of Tacoma Public Works
Darius Thompson
747 Market Street
Tacoma, WA  98402

SUMMARY OF REQUEST:
A Shoreline Development Permit for replacement and expansion of a public float/dock and gangway to provide moorage in the Thea Foss Waterway, zoned S-13 Shoreline District - Waters of the State. Mitigation has been provided by prior removal of overwater coverage on a nearby site (Municipal Dock) on the Foss Waterway.

LOCATION:
1195 Dock Street, Parcel 8950002072

DECISION:
The request for a Shoreline Substantial Development is Approved, subject to conditions.

Notes:
The reconsideration period on this decision closes April 20, 2021; the decision will be final on April 21, 2021 and will be transmitted to the Department of Ecology at that time, provided no requests for reconsideration are timely filed as identified in APPEAL PROCEDURES of this Report and Decision. Upon receipt by Department of Ecology, a 21-day appeal period will begin.

For additional information concerning this land use permit please contact:

   Shirley Schultz, Principal Planner
   Planning and Development Services Department
   747 Market Street, Room 345, Tacoma, WA 98402
   253-345-0879 | shirley.schultz@cityoftacoma.org
**SUMMARY OF RECORD**

The following exhibits and attachments constitute the administrative record:

**Attachments:**

A. Site Plans, June, 2020, additional plan set from mitigation report  
B. Technical Memorandum from Shannon Brenner, Environmental Specialist

**Exhibits:**¹  
A. Joint Aquatic Resources Permit Application (JARPA) form  
B. SEPA Determination of Nonsignificance, including Checklist  
C. Applicant Shoreline Narrative  
D. Advance Mitigation Plan Site Use Plan dated June 19, 2020 prepared by kpff  
E. Foss Waterway Eelgrass Assessment prepared by Grette Associates dated June 13, 2020  
F. Advance Permittee-Responsible Mitigation Plan Report prepared by GeoEngineers dated September 26, 2017  
G. Marine Mammal Monitoring Plan prepared by kpff, dated June 19, 2020  
H. Department of Ecology Comment Letter, February 8, 2021  
I. Staff Comments/Conditions  
J. Inadvertent Discovery Plan

**FINDINGS**

**Proposal:**

1. The City of Tacoma, Public Works, is proposing to replace a dock built in 1975 with a new, larger dock and associated gangway. The purpose of the project is to provide safe transient moorage in the Foss Waterway and to improve ADA access.

2. The project is located within Thea Foss Waterway. The adjacent site is zoned “S-8” Shoreline District – Thea Foss Waterway, and the area of work is zoned “S-13” Shoreline District – Waters of the State. The project includes the following activities²:

   - The current moorage float is 6 x 246.5 feet for a total of 1,479 sf. The new moorage float will be 8 x 246.5 feet for a total of 1,972 sf. This is an increase of 493 sf. The increase in width will extend in to deeper water beyond -10.0’ MLLW.
   - The existing access float is 24 x 6 feet for a total of 144 sf. The new access float will be 41 x 6 feet wide for a total of 246. This is an increase of 102 sf in the lower shore zone.
   - The current moorage and access floats are concrete with no grating and will be designed to include grating to meet WDFW and USACE standards for light penetration.
   - The existing six galvanized steel pile that anchor the float will remain and be used to anchor the new dock.
   - The existing gangway is 6 x 61 feet for a total of 366 sf. The new gangway will be 6 x 88 feet for a total of 528 sf. This is an increase of 162 sf. The entire gangway will be grated.
   - The 350 sf timber dock will be re-built and must be fully grated. The timber dock is located in the upper shore zone and lower shore zone. Four 16-inch timber pile supporting the dock

¹ All Exhibits are contained within associated file of the Planning and Development Services Department. They are referenced and incorporated herein as thought fully set forth.

² This list reflects a reduction in size of the moorage float and additional grating that are not accounted for in the submitted JARPA and mitigation plan prepared by kpff. The size of proposed structures and area of impact listed above replace those prior project descriptions.
will be replaced with galvanized steel piling of the same size. Piling will be removed and replaced using a vibratory hammer.

3. Construction will occur below OHWM. Best management practices (BMPs) will be employed during construction to minimize aquatic impacts, including employing a debris boom during work and minimizing the amount of disturbed soils in the work area below OHWM.
   - All piling will be removed using a vibratory hammer. Replacement will also use a vibratory hammer to the extent feasible. (Impact hammer use, if necessary, will include sound attenuation.)
   - All work will occur within the approved habitat work window.
   - All debris will be contained and disposed of properly.
   - If barge-based equipment is used, best practices will be used including containment, prohibition of grounding, etc.

4. The proposal qualifies as a “water-dependent” use because adjacency to the water is inherent in the nature of the project. Stormwater currently flows from throughout the downtown into the Thea Foss Waterway, and will continue to do so after the project – but with better quantity and quality management.

5. Site plans and elevations are appended to this report and decision as Attachment A.

Project Site:

6. The project is located adjacent to 1199 Dock Street, parcel 8950002072. The parcel is approximately 12,735 square feet and is mostly waterward of the OHWM.

7. The site is developed with the public esplanade (shoreline walkway) and the existing dock and gangway. Upland – under separate ownership – is a restaurant, parking lot, and landscaping.

8. The SMP designates critical areas, which includes marine waters of Fish and Wildlife Habitat Conservation Areas (FWHCAs). The Thea Foss Waterway is classified as a FWHCA and has a 50-foot marine buffer that extends from OHWM and on to the subject site.

9. The dock replacement will be located within the “S-13” Shoreline District – Marine Waters of the State. The intent of the “S-13” Shoreline District is to maintain these water bodies for the use by the public for navigation, commerce, and recreation purposes. See TMC 13.10.9.15.

10. The portion of the site that is located within the shoreline is classified as a “Downtown Waterfront” environment by the TSMP. The purpose of the “Downtown Waterfront” environment include goals to foster a mix of public and private uses, including parks and recreation facilities, that are linked by a comprehensive public access system; to strengthen the pedestrian-orientation of development on the Thea Foss Waterway; and to manage the shoreline area in a way that optimizes circulation, public access, development, and environmental protection.

Surrounding Area:

11. The property to the north of the site is vacant and is privately owned.

12. Property to the south is developed with the esplanade, the 15th Street Overpass, and mixed use residential/commercial buildings.


Additional Information:

14. The application was received on August 18, 2020. The application was determined to be complete on December 3, 2020.
15. City of Tacoma Planning and Development Services, acting as SEPA Lead Agency, is issuing a Determination of Environmental Non-significance (DNS) concurrently with the shoreline decision, which is attached as Exhibit B to this report and decision. The Determination was reviewed as an addendum/adoption to the South Downtown Subarea Plan and EIS, which was adopted in August of 2013. The Subarea Plan and concurrent environmental review anticipated infrastructure improvements to support increased development in the downtown area.

**Notification and Comments:**

16. Public notice was sent to all owners of property within 400 feet of the site, as well as qualified neighborhood groups on December 29, 2020 and again on January 7, 2021, and a property sign was posted within seven days of the start of the 30-day comment period. Written notice of the application and copies of the project plans and the JARPA were transmitted to reviewing local, state, and federal resource agencies.

17. No public comments were received as a result of the public notice, although clarifying communication did occur between the applicant and a project neighbor.

18. Comments were also received from the Department of Ecology and are included as Exhibit xx. The comments are provided as advisory for development permits and/or conditions herein as appropriate.

19. Substantive subject matter expert comments were received from Shannon Brenner, Environmental Specialist and Karina Stone, Site Development. Additional advisory comments were received from other City of Tacoma reviewers. Comments that may impact shoreline development are addressed as conditions of approval and advisory notes where applicable within this report and decision.

**Applicable Regulations and Analysis:**

20. Tacoma Municipal Code (TMC) 13.10.1.2 states that the purpose and intent of the Tacoma Shoreline Master Program is to:

   1. Prevent the inherent harm of uncoordinated and piecemeal development of the state’s shoreline.

   2. Implement the following laws or the applicable elements of the following:
      a. Shoreline Management Act: RCW 90.58;
      b. Shoreline Guidelines: WAC 173-26;
      c. Shoreline Management Permit and Enforcement procedures: WAC 173-27;
      d. and to achieve consistency with the following laws or the applicable elements of the following:
         i. The Growth Management Act: RCW 36.70A;
         ii. City of Tacoma Comprehensive Plan; and
         iii. Chapter 13 of the City of Tacoma Municipal Code.

21. WAC 173-27-140 allows that:

   (1) No authorization to undertake use or development on shorelines of the state shall be granted by the local government unless upon review the use or development is determined to be consistent with the policy and provisions of the Shoreline Management Act and the master program.

   (2) No permit shall be issued for any new or expanded building or structure of more than thirty-five feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shorelines except where a master program does not prohibit the same and then only when overriding considerations of the public interest will be served.
**Analysis:** The applicant has followed all procedures for application for a Shoreline Substantial Development Permit and has demonstrated compliance with applicable regulations and policies as analyzed below. The permit review ensures consistency with both the SMA and Tacoma’s SMP. No structures are proposed above grade within the Shoreline jurisdiction; the height requirement is therefore not applicable.

22. WAC 173-27-150 allows that:

(1) A substantial development permit shall be granted only when the development proposed is consistent with:
   (a) The policies and procedures of the act;
   (b) The provisions of this regulation; and
   (c) The applicable master program adopted or approved for the area. Provided, that where no master program has been approved for an area, the development shall be reviewed for consistency with the provisions of chapter 173-26 WAC, and to the extent feasible, any draft or approved master program which can be reasonably ascertained as representing the policy of the local government.

(2) Local government may attach conditions to the approval of permits as necessary to assure consistency of the project with the act and the local master program.

**Analysis:** The proposal has been designed and will be developed in such a way as to meet all requirements, as conditioned, of the Tacoma Municipal Code and Shoreline Master Program.

23. TMC 13.10.6.4, including subsections 6.4.1 and 6.4.2 establishes the policies and regulations that apply to critical areas within the shoreline jurisdiction. The project will take place in a critical area, FEMA Flood Hazard Area as well as marine waters and critical saltwater habitat, which are both considered Fish and Wildlife Habitat Conservation Areas (FWHCAs).

**Analysis:** Shannon Brenner, Environmental Specialist, reviewed and assessed the proposal for impacts to the marine buffer and Fish and Wildlife Habitat Conservation Area. As the City’s subject matter expert, the Director would place substantial weight on Ms. Brenner’s analysis. (Attachment B) The purpose of the project is to provide public moorage, which is a preferred water dependent use in the shoreline, and is allowed, provided unavoidable impacts are minimized and mitigated. The applicant demonstrated that kelp and eel grass beds are not present at the site, and has met the mitigation sequencing requirements both in TMC 13.10.6.4 and TMC Section 2.4.2 General Mitigation Requirements.

Ms. Brenner has concluded that the proposal, if constructed per the revised plans and per the provided mitigation, will result in no net loss of ecological functions. The project is a water-dependent use. Mitigation has been designed to result in no net loss of ecological functions and has provided appropriate mitigation for unavoidable impacts. The reconstruction and design of the floats and dock have avoided impacts were feasible and the mitigation has been designed to be consistent with state and federal protections. The moorage and dock are a benefit to the public as it provides public access to shorelines of the state. The mitigation plan has been prepared by a qualified professional and meets the requirement of the TSMP.

24. Per TMC 13.10.6.5.2.B, public access is required for all public projects in the shoreline. Given that the site is to be developed as public moorage, and given that the current proposal is approvable as conditioned for development in the FWHCA, the Director finds that the public access requirement is met.

25. TMC 13.10.7.4 establishes the policies and regulations for boating facilities, including moorage, and also directs development to be consistent with TMC 13.10.8 for shoreline modification. 13.10.7.4. B notes that boating facilities are encouraged on the Thea Foss Waterway, provided they meet the regulations of the TSMP.
26. TMC 13.10.7.2 sets forth the regulations for boating facilities. This section establishes criteria for new moorage facilities. The proposal is to replace an existing facility; that being said, review of the regulations shows that a new moorage facility would also be allowed in this location, provided it meets the design requirements and constitutes no net loss of ecological functions.

27. TMC 13.10.8 establishes the policies and regulations for shoreline modification to accommodate moorage facilities. Relevant regulations are as follows:

A. General Regulations
   1. There shall be no net loss of ecological functions as a result of development of moorage facilities and associated recreational opportunities.
   2. Moorage facilities shall be located, designed, constructed, and operated so as to minimize impacts to shoreline resources and unnecessary interference with the right of adjacent property owners, public navigation of public waters, as well as adjacent shoreline or water uses.
   3. Extended moorage on waters of the State without a lease or permission is prohibited.

B. Piers, Wharves, Docks and Floats
   1. New piers, wharves, docks, and floats may be permitted only for water-dependent uses or public access and shall be restricted to the minimum size necessary to serve a proposed water-dependent use.
   2. Design and construction of all piers, wharves, docks, and floats is required to avoid, minimize, and mitigate for impacts to ecological processes and functions and to be constructed of approved materials.
   3. Pilings for newly constructed piers, wharves, docks, and floats . . .
   4. In-water fixed platform structures supported by piles that do not abut the shoreline . . .
   5. Noncommercial piers, wharves, docks, and floats shall be constructed perpendicular to the shoreline where practicable.
   6. Pier, wharf, dock, and float facilities shall be equipped with adequate lifesaving equipment such as life rings, hooks, and ropes.
   7. When plastics or other non-degradable materials are used in the construction of piers, wharves, docks, and floats, the materials shall be safely contained.
   8. Piers, wharves, docks, and floats shall be constructed so as to avoid or minimize impairment of views from existing uses or structures on neighboring properties.
   9. Piers, wharves, docks, and floats shall be constructed so as not to interfere with or impair the navigational use of surface water.
  10. When piers, wharves, docks, and floats are removed, the site shall be restored.
  11. Piers, wharves, docks, and floats shall be designed and constructed to minimize interference with public use of the water and shoreline. The design of piers, wharves, docks, and floats should enhance public access and shall include access, unless access is incompatible with a water-dependent or single-family use.

Analysis: The project has been reviewed for compliance with the regulations for moorage facilities. Of note, the analysis by Ms. Brenner assures no net loss of ecological functions, and the project will not disrupt critical habitat or impede fish passage. Replacement pilings will be steel (not creosote timber), the dock and gangway will have adequate grating for light penetration, and the dock will not affect aesthetics in the vicinity. Further, the purpose of the dock is to provide transient public moorage for access to the Foss waterfront.
CONCLUSIONS

1. Provided the conditions of approval are met, the proposal meets the criteria identified in WAC 173-27-150 for approval of a Substantial Development Permit as follows:
   a. The proposal, if conditioned appropriately, has been found to be consistent with the policies and procedures of the Shoreline Management Act.
   b. The proposal, if conditioned appropriately, has been found to be consistent with the provisions of WAC 173-27-150.
   c. The proposal, if conditioned appropriately, has been found to be consistent with the City of Tacoma’s Master Shoreline Program.

2. Provided the conditions of approval are met, the proposal meets the criteria identified in WAC 173-27-160 for approval of a Shoreline Conditional Use Permit as follows:
   a. The proposed use is consistent with the policies of RCW 90.58.020 and the master program.
   b. The proposed use will not interfere with the normal public use of public shorelines.
   c. The proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and shoreline master program.
   d. The proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located.
   e. The public interest suffers no substantial detrimental effect.

DECISION

Based upon the above findings and conclusions, the request for a Shoreline Substantial Development Permit is Approved, subject to the following conditions:

Conditions:

1. Revised drawings reflecting project changes shall be provided with the building permit and will be uploaded to this record.

2. The mitigation shall be consistent with the Advance Permittee-Responsible Mitigation Plan Report dated September 26, 2017 prepared by GeoEngineers.

3. A ledger will be provided to the City documenting the credits used prior to construction. The ledger must be in a form as described in the Interagency Regulatory Guide for Advance Permittee-Responsible Mitigation. The ledger must include the square footage and geographic area of the credits used and demonstrate that it provides similar habitat (i.e. is of a similar depth and substrate as the area of impact)

4. The advanced mitigation site must be protected in perpetuity. Documentation of a protection mechanism such as a restrictive covenant, deed restriction, or conservation easements must be provided to the City Planning and Development Services prior to construction.

5. Best Management Practices shall be used for construction of the stormwater outfall, including the BMPs provided in the JARPA and Advanced Mitigation Site Use plan dated June 19, 2020.

6. Work will be conducted during the approved state and federal fish work windows.

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3 Conclusions are based upon the applicable criteria and standards set forth in the Tacoma Municipal Code (TMC), the policies of the Comprehensive Plan, and the Attachments, Exhibits, and Findings of Fact listed herein. Any conclusion of law hereinafter stated which may be deemed a finding of fact herein is hereby adopted as such.
7. The contractor will prepare a construction Spill Prevention, Control and Countermeasure’s (SPCC) Plan.


9. Any changes made to size, location, or configuration of the dock or amount and type of mitigation to address other state and/or federal requirements will be submitted to Planning and Development Services for modification of this permit.

10. A copy of this permit must be available for review at the project site.

11. A copy of approvals from the USACE and WDFW must be provided to the City before construction.

12. The project must demonstrate compliance with all applicable structural requirements in the building code and/or TSMP 6.4.8 for Flood Hazard Areas upon submittal for permits to construct.

**Advisory Notes:**

The below notes are meant to provide additional information to the applicant relative to the specific development proposal. These notes are not conditions of the permit nor do they constitute a complete review of the project.

1. The decision set forth herein is based upon representations made and information submitted, including development plans and proposals, submitted to the Director. Any substantial change(s) or deviation(s) in such development plans, proposals, or conditions of approval imposed shall be subject to the approval of the Director, and may require additional permitting and public notification and comment.

2. The applicant must obtain other approvals prior to obtaining permits for construction from the City as required by other local, state and federal agencies including the Army Corps of Engineers, Washington State Department of Ecology and Department of Fish and Wildlife.

3. This permit may be rescinded pursuant to *RCW 90.58.140(8)* of the Shoreline Management Act of 1971 and Section 13.10.330 of the *Tacoma Municipal Code* in the event the permittee fails to comply with any condition thereof.

4. Construction shall be commenced within two (2) years after the effective date of the permit. Local government may, however, authorize a single extension for a period not to exceed one year based on reasonable factors, if a request for extension has been filed before the expiration date. Authorization to conduct development activities shall terminate five years after the effective date of a shoreline permit, however, a single extension for a period not to exceed one year may be granted by local government if a request for extension has been filed before the expiration date.

5. Construction pursuant to this permit will not begin or is not authorized until twenty-one (21) days from the “date of filing” with the Washington State Department of Ecology, as that term is defined in *WAC 173-27-130*, or until all review proceedings initiated within twenty-one (21) days from the “date of filing” have been terminated.

**ENDANGERED SPECIES ACT WARNING:**
The holder of this shoreline permit is responsible for compliance with the applicable provisions of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.), and this shoreline permit includes no representation or warranty of ESA compliance.
ORDERED this 6th day of April, 2021

____________________________________
PETER HUFFMAN, DIRECTOR
PLANNING AND DEVELOPMENT SERVICES DEPARTMENT

FULL DECISION TRANSMITTED by first class mail / email to:

Darius Thompson, City of Tacoma Public Works

SUMMARY OF DECISION TRANSMITTED by first class or electronic mail to the following:
All property owners within 400 feet of the subject site
New Tacoma Neighborhood Council
Citizens for a Healthy Bay: Melissa Malott, Erin Dilworth
City of Federal Way: Brian Davis, Planning Inquiry
City of Tacoma: Craig Kuntz, Carol Wolfe, Donlisa Scott, Elliott Barnett, Jennifer Kammerzell, Karla Kluge, Reuben McKnight, Scott Beard, Shannon Brenner, Shari Hart
Department of Archaeology and Historic Preservation: SEPA Desk
Department of Ecology: Eva Barber, Zach Meyers, SEPA Register
Department of Fish & Wildlife: Liz Bockstiegel, Kelly Still, SEPA Desk
Department of Natural Resources: Aquatic Leasing Program
Environmental Protection Agency: Justine Barton
Metropolitan Parks District: Joe Brady, Marty Stump, Mary Anderson
Pierce County Assessor: Darcy Brandvold
Pierce Transit: Tina Vaslet
Port of Tacoma: Tony Warfield
Puget Sound Clean Air Agency: SEPA Desk
Puyallup Tribe: Alec Wrolson, Andrew Strobel, Brandon Reynon, Carolann Hawks, Char Naylor, Charlene Matheson, David Winfrey, Jeffrey Thomas, Jennifer Keating, Lisa Anderson, Lois Boome, Nancy Games, Robert Barandon, Russ Ladley
Sound Transit: Perry Weinberg, Steven Kennedy
Tacoma Pierce County Health Department: Chrissy Cooley, SEPA Desk
Tacoma School District: Chris Williams
US Army Corps of Engineers: Dan Krenz, Halie Endicott, Jenaes Churchill
US Fish & Wildlife Service: Judy Lantor

PURSUANT TO RCW 36.70B.130, YOU ARE HEREBY NOTIFIED THAT AFFECTED PROPERTY OWNER(S) RECEIVING THIS NOTICE OF DECISION MAY REQUEST A CHANGE IN VALUATION FOR PROPERTY TAX PURPOSES CONSISTENT WITH PIERCE COUNTY’S PROCEDURE FOR ADMINISTRATIVE APPEAL. TO REQUEST A CHANGE IN VALUE FOR PROPERTY TAX PURPOSES YOU MUST FILE WITH THE PIERCE COUNTY BOARD OF EQUALIZATION ON OR BEFORE JULY 1ST OF THE ASSESSMENT YEAR OR WITHIN 30 DAYS OF THE DATE OF NOTICE OF VALUE FROM THE ASSESSOR-TREASURER’S OFFICE. TO CONTACT THE BOARD CALL 253-798-7415 OR <WWW.CO.PIERCE.WA.US/BOE>.
APPEAL PROCEDURES

RECONSIDERATION:
Any person having standing under the ordinance governing this application and feeling that the decision of the Director is based on errors of procedure or fact may make a written request for review by the Director within fourteen (14) days of the issuance of the written order. The fee for reconsideration is $260.00. This request shall set forth the alleged errors, and the Director may, after further review, take such further actions as deemed proper, and may render a revised decision. A request for RECONSIDERATION of the Director’s decision in this matter must be filed in writing to the staff contact listed on the first page of this document. Filing of the reconsideration shall not be complete until both the reconsideration request and required filing fee are received. THE FEE SHALL BE REFUNDED SHOULD THE REQUESTOR PREVAIL. (Pursuant to Section 2.09.020 of the Tacoma Municipal Code, fees for reconsideration shall be waived for qualifying senior citizens and persons who are permanently handicapped who are eligible for tax exemption because of financial status.)

Should no reconsideration be requested, this Decision will be considered final and will be transmitted to the Department of Ecology on April 21, 2021.

APPEAL TO SHORELINE HEARINGS BOARD:
The decision of the Director of Planning and Development Services may be appealed by any person aggrieved by the granting, denying, or rescinding of a permit on shorelines of the state pursuant to RCW 90.58.140, who may seek review from the shorelines hearings board by filing a petition for review within twenty-one (21) days of the date of filing of the decision as defined in RCW 90.58.140(6), which states that the “date of filing” is “the date of actual receipt by the department of the local government’s decision”.

Information on filing an appeal of a Shoreline Substantial Development Permit may be obtained by contacting the State of Washington’s Environmental and Land Use Hearings Office at www.eho.wa.gov, or PO Box 40903, Olympia WA 98504-0903, (360) 664-9160, email: eluho@eluho.wa.gov
PART III

CITY OF TACOMA

LOCAL EMPLOYMENT AND APPRENTICESHIP
TRAINING PROGRAM (LEAP) REGULATIONS FOR
PUBLIC WORKS CONTRACTS
Chapter 1.90
LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM

Sections:
1.90.010 Purpose.
1.90.020 Scope.
1.90.030 Definitions.
1.90.040 LEAP goals.
1.90.050 Repealed.
1.90.060 Effect of program on prime contractor/subcontractor relationship.
1.90.070 Apprentice utilization requirements – Bidding and contractual documents.
1.90.080 Enforcement.
1.90.090 Compliance with applicable law.
1.90.100 Review and reporting.
1.90.105 Authority
1.90.110 Interpretation.

1.90.010 Purpose.
The purpose of this Chapter is to establish a means of providing for the development of a trained and capable workforce possessing the skills necessary to fully participate in the construction trades.

(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.020 Scope.
The provisions of this Chapter shall apply to all Public Works or Improvements funded in whole or in part with City funds or funds which the City expends or administers in accordance with the terms of a grant.

(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.030 Definitions.
As used in this chapter, the following terms shall have the following meanings:

A. “Apprentice” shall mean a person enrolled in a course of training specific to a particular construction trade or craft, which training shall be approved by the Washington State Apprenticeship and Training Council established pursuant to RCW 49.04.010.

B. “Building Projects” shall mean all Public Works or Improvements having an Estimated Cost greater than $750,000.00, and for which a building permit must be issued pursuant to Chapter 1 of the current edition of the state building code (Uniform Building Code).

C. “City” shall mean all divisions and departments of the City of Tacoma, and all affiliated agencies, provided, however, that the Tacoma Community Redevelopment Authority shall not be included within this definition.

D. “Civil Projects” shall mean all Public Works or Improvements that are not defined as a “Building Project,” provided that those projects having an Estimated Cost of less than $250,000.00 shall not be included in this definition.

E. “Contractor or Service Provider” means a person, corporation, partnership, or joint venture entering into a contract with the City to construct a Public Work or Improvement.

F. “Director” shall mean the Director of Community and Economic Development, or the Director’s Designee.

G. “Economically Distressed ZIP Codes” shall mean ZIP codes in the Tacoma Public Utilities Service Area that meet two out of three (2/3) of the thresholds of:
   1. High concentrations of residents living under 200% of the federal poverty line in terms of persons per acre (69th percentile)
   2. High concentrations of unemployed people in terms of persons per acre (45th percentile)
3. High concentrations of people 25 years or older without a college degree in terms of persons per acre (75th percentile)

Said thresholds shall be updated within 30 days following any Prevailing Wage updates issued by the Washington State Labor and Industry. All updates are to be published on the first business day in August and in February of each calendar year.

H. “Electrical Utility” and “Water Utility” shall mean, respectively, the Light Division of the Department of Public Utilities of the City of Tacoma, and shall include the electrical and telecommunications services of that Division, and the Water Division of the Department of Public Utilities of the City of Tacoma.

I. “Estimated Cost” shall mean the anticipated cost of a Public Work or Improvement, as determined by the City, based upon the expected costs of materials, supplies, equipment, and labor, but excluding taxes and contingency funds.

J. “Estimated Labor Hours” shall mean the anticipated number of Labor Hours determined by the City to be necessary to construct a Public Work or Improvement and set forth in the specifications for the project, or as may be subsequently revised due to contract or project adjustment, or pursuant to an agreed upon change order.

K. “Existing Employee” shall mean an employee whom the Contractor or Service Provider can demonstrate was actively employed by the Contractor or Service Provider for at least 1000 hours in the calendar year prior to bid opening plus one month following bid opening, and who was performing work in the construction trades.

L. “Labor Hours” shall mean the actual number of hours worked by workers receiving an hourly wage who are employed on the site of a Public Work or Improvement, and who are subject to state or federal prevailing wage requirements. The term “Labor Hours” shall include hours performed by workers employed by the Contractor or Service Provider and all Subcontractors, and shall include additional hours worked as a result of a contract or project adjustment or pursuant to an agreed upon change order. The term “Labor Hours” shall not include hours worked by workers who are not subject to the prevailing wage requirements set forth in either RCW 39.12 or the Davis-Bacon Act - 40 U.S.C. 276 (a).

M. “LEAP Coordinator” shall mean the City of Tacoma staff member who administers LEAP.

N. “LEAP Program” or “Program” shall mean the City of Tacoma’s Local Employment and Apprenticeship Training Program, as described in this chapter.

O. “LEAP Regulations” or “Regulations” shall mean the rules and practices established in this document.

P. “LEAP Utilization Plan” shall mean the document submitted by the Contractor to the LEAP Coordinator which outlines how the associated goals will be met on the project.

Q. “Priority Hire Resident” shall mean any resident within the Economically Distressed ZIP Codes.

R. “Project Engineer” shall mean the City employee who directly supervises the engineering or administration of a particular construction project subject to this chapter.

S. “Public Work or Improvement” shall have the same meaning as provided in Section 39.04.010 RCW, as that Section may now exist or hereafter be amended.

T. “Resident of Tacoma” shall mean any person, not defined as a Resident of the Economically Distressed ZIP Codes within the Tacoma Public Utilities Service Area, who continues to occupy a dwelling within the boundaries of the City of Tacoma, has a present intent to continue residency within the boundaries of the City, and who demonstrates the genuineness of that intent by producing evidence that the person’s presence is more than merely transitory in nature.

U. “Service Area - Electrical” or “Electrical Service Area” shall mean that area served with retail sales by the Electrical Utility of the City of Tacoma at the time a bid is published by the Electrical Utility for a Public Work or Improvement to be performed primarily for the Electrical Utility.

V. “Service Area - Water” or “Water Service Area” shall mean that area served with retail sales by the Water Utility of the City of Tacoma at the time a bid is published by the water utility for a Public Work or Improvement to be performed primarily for the Water Utility.
W. “Service Contract” shall mean all City contracts relating to a Public Work or Improvement which utilize labor at a City site and which are not within the exceptions to nor defined as “Building Projects” or “Civil Projects.”

X. “Subcontractor” means a person, corporation, partnership, or joint venture that has contracted with the Contractor or Service Provider to perform all or part of the work to construct a Public Work or Improvement by a Contractor.

Y. “Tacoma Public Utilities Service Area” shall mean every ZIP code listed by Tacoma Public Utilities as an area that either receives services or maintains infrastructure to provide services.

Z. Washington State Labor and Industry Prevailing Wage shall mean the hourly wage, usual benefits and overtime, paid in the largest city in each county, to the majority of workers, laborers, and mechanics. Prevailing wages are established, by the Department of Labor & Industries, for each trade and occupation employed in the performance of public work. They are established separately for each county, and are reflective of local wage conditions.

AA. “Tacoma Public Utilities” means the City of Tacoma, Department of Public Utilities.


1.90.040 LEAP goals.

A. Utilization Goals.

1. All Contractors constructing Civil Projects or Building Projects, and all Service Providers involved with the construction of a Public Work or Improvement, shall ensure that at least 15 percent of the total Labor Hours actually worked on the Project are performed by persons having their residence within the boundaries of the City of Tacoma or Economically Distressed ZIP Codes, whether or not any such person is an Apprentice.

a. The thresholds for this section shall be $250,000.00 for Civil Projects and $750,000.00 for Building Projects.

2. Fifteen percent (15%) of the Total Labor Hours on contracts above one-million dollars ($1,000,000.00) shall have work performed by Apprentices who are residents of the Tacoma Public Utilities Service Area consistent with RCW 39.04.320(1)(a), subject to waiver based on exceptions as specified in RCW 39.04.320(2)(a), (b), and (c).

3. Labor Hours performed by non-residents of the State of Washington will be deducted from a project’s total Labor Hours for purposes of determining compliance with the requirements of this chapter.

4. All Contractors and Service Providers shall submit a LEAP Utilization Plan as provided for in the regulations adopted under this chapter, and shall meet with the LEAP Coordinator to review said Plan prior to being issued a Notice to Proceed. Failure to submit a LEAP Utilization Plan may be grounds for the City to withhold remittance of a progress payment until such Plan is received from the responsible Contractor or Provider. A meeting with the LEAP Coordinator prior to issuance of a Notice to Proceed shall be excused only when the LEAP Coordinator is unavailable to meet prior to the scheduled date for issuance of the Notice to Proceed and the Contractor and the LEAP Coordinator have otherwise scheduled a meeting for the coordinator to review the Contractor’s or Provider’s plan.

The Contractor or Service Provider shall be responsible for meeting the LEAP utilization goal requirements of the contract, including all amendments and change orders thereto, and shall be responsible for overall compliance for all hours worked by Subcontractors. To the extent possible, the Contractor or Service Provider shall recruit Apprentices from multiple trades or crafts.

B. Failure to Meet Utilization Goal.

1. Contracts for the construction of Building projects or Civil Projects and Service Contracts shall provide that Contractors or Service Providers failing to meet the LEAP utilization goals shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the extent the Contractor or Service Provider met its goal. The amount per hour that shall be assessed shall be as follows:
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<th>Percent of Goal Met</th>
<th>Assessment per unmet hour</th>
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<tr>
<td>100%</td>
<td>$ 0.00</td>
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<tr>
<td>90% - 99%</td>
<td>$ 2.00</td>
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<tr>
<td>75% to 89%</td>
<td>$ 3.50</td>
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<tr>
<td>50% to 74%</td>
<td>$ 5.00</td>
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<tr>
<td>1% to 49%</td>
<td>$ 7.50</td>
</tr>
<tr>
<td>0%</td>
<td>$10.00</td>
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</table>

When determining the percent of goal that is met, all rounding shall be down to the nearest whole percent. No penalty shall be waived by the City unless it is determined by the Director to be in the best interests of the City, which determination shall be made after consultation with the LEAP Coordinator.

2. Deposit of Assessments. All assessments imposed pursuant to this section shall be deposited into a separate account and utilized to support the City’s pre-apprenticeship and training program. The policies and regulations adopted by the City Manager and Director of Utilities pursuant to this chapter shall address issues pertaining to a Contractor’s existing workforce. Contributions need not be made for Labor Hours that have been adjusted in accordance with Section 1.90.040(E).

C. LEAP Reports. Notwithstanding the provisions of TMC 1.90.100, the Director shall, not less than annually, publish a LEAP report setting forth Contractor compliance with this chapter. Said report shall include information on all contracts and all Contractors to which this chapter applies, and shall detail the level and nature of LEAP participation by contract and by Contractor, The Director’s LEAP report may include such other information as may be helpful to assuring fair and accurate representation of the contracts, Contractors or projects covered in the report. The Director’s LEAP reports may be considered by the Board of Contracts and Awards in its determinations as to bidder responsibility.

D. LEAP Goal Adjustments.

1. LEAP utilization goals may be adjusted prior to bid opening and/or as a result of a contract amendment or change order on a Building Project, Civil Project, or Service Contract.

a. If LEAP utilization goals are adjusted prior to bid opening, they shall be set forth in the bid or Request For Proposal advertisement and specification documents or in an addendum timely provided to prospective bidders, provided that such adjustment shall be based upon a finding by the Project Engineer that the reasonable and necessary requirements of the contract render LEAP utilization unfeasible at the required levels. The Director shall concur with the Project Engineer’s finding, provided that should the Project Engineer and the Director fail to reach agreement on the Project Engineer’s finding, then in that circumstance the matter shall be referred to the City Manager or the Director of Utilities, as appropriate, for ultimate resolution. Notwithstanding any other provision of this chapter to the contrary, the decision of the City Manager or the Director of Utilities with regard to LEAP goal adjustment may not be appealed.

b. If LEAP utilization goals are adjusted due to contract amendment or change order, the amount of adjustment shall be consistent with the utilization goals set forth in this chapter and shall be determined pursuant to regulations adopted pursuant to this chapter for administration of LEAP utilization goal adjustments.

2. The methodology of determining the appropriate adjustments to LEAP utilization goals shall be determined in consultation with the LEAP Advisory Committee, established pursuant to this ordinance for so long as the LEAP Advisory Committee remains in existence.

3. LEAP utilization goals shall not apply to those portions of a project that are funded by sources other than (a) City funds, or (b) funds which the City expends or administers in accordance with the terms of a grant to the City, provided that the Project Engineer shall notify the Director of such non-application prior to bid advertisement. For the purposes of this paragraph, credits extended by another entity for the purpose of providing project funding shall not be considered to be City funds.

E. Utilization - Electrical Projects Outside Electrical Service Area. Civil Projects or Building Projects that are constructed primarily for the benefit or use by the City’s Electrical Utility, which are wholly situated outside the
Electrical Service Area, and for which the estimated cost is less than $1,000,000.00, are exempt from the requirements of this chapter.

F. Utilization - Water Projects Outside Water Service Area. Civil Projects or Building Projects that are constructed primarily for the benefit or use by the City’s Water Utility, which are wholly situated outside the Water Service Area, and for which the estimated cost is less than $1,000,000.00 are exempt from the requirements of this chapter.

G. Utilization – Projects Outside Tacoma Public Utilities Service Area. Civil Projects or Building Projects that are constructed primarily for the benefit or use by Tacoma Public Utilities, which are wholly situated outside the retail service area of the Tacoma Public Utilities Service Area, and for which the estimated cost is less than $1,000,000.00, shall be exempt from 15% utilization goal specified in subsection A1. of this section. Projects wholly situated outside the Tacoma Public Utilities Service Area, and for which the estimated cost is more than $1,000,000.00, shall be exempt from 15% utilization goal specified in subsection A2. of this section may be met if project work is performed by Apprentices who are enrolled in a course of training specific to a particular construction trade or craft, provided such training has been approved by the Washington State Apprenticeship and Training Council in accordance with Chapter 49.04, RCW.

H. Emergency. This chapter shall not apply in the event of an Emergency. For the purposes of this section, an “Emergency” means unforeseen circumstances beyond the control of the City that either: (a) present a real, immediate threat to the proper performance of essential functions; or (b) will likely result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken.

I. Conflict with State or Federal Requirements. If any part of this chapter is found to be in conflict with federal or state requirements which are a prescribed condition to the allocation of federal or state funds to the City, then the conflicting part of this chapter is inoperative solely to the extent of the conflict and with respect to the City departments directly affected. This provision does not affect the operation of the remainder of this chapter. Administrative rules or regulations adopted under this chapter shall meet federal and state requirements which are a necessary condition to the receipt of federal or state funds by the City.
B. Any knowing failure or refusal to cooperate in compliance monitoring may disqualify the defaulting Contractor, Service Provider, or Subcontractor from eligibility for other City contracts.

C. The making of any material misrepresentation may disqualify the defaulting Contractor, Service Provider, or Subcontractor from eligibility for other City contracts.

D. Any action by the City, its officers and employees, under the provisions of this Chapter may be reviewed by the Board of Contracts and Awards, upon written application of the party so affected. Application shall be made within twenty (20) days of the date of the action upon which the appeal is based, and provided to the City by certified mail or by personal service. Any action taken by the Board of Contracts and Awards may be appealed to the City Council or Public Utility Board, as appropriate, and thereafter if desired, to the Superior Court of Pierce County, Washington, within fifteen (15) days of the previous decision.

(Ord. 26698 § 5; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.090 Compliance with applicable law.
Nothing in this Chapter shall excuse a Prime Contractor, Service Provider, or Subcontractor from complying with all relevant federal, state, and local laws.

(Ord. 26698 § 6; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.100 Review and reporting.
The City Manager and Director of Utilities shall review the Program on or before January 1, 2000, and every two (2) years thereafter, and shall report to the City Council and Public Utility Board the Manager’s and Director’s findings, conclusions, and recommendations as to the continued need for the Program, and any revisions thereto that should be considered by the Council and Board.

(Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.105 Authority.
The City Manager and the Director of Utilities shall have authority to jointly adopt policies and regulations consistent with this chapter to implement the LEAP program.

(Ord. 26698 § 7; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

1.90.110 Interpretation.
This Chapter shall not be interpreted or construed so as to conflict with any state or federal law, nor shall this Chapter be enforced such that enforcement results in the violation of any applicable judicial order.

(Ord. 26301 § 1; passed Oct. 6, 1998)
LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP)

LEAP REQUIREMENTS & PROCEDURES:

The LEAP office enforces post-award mandatory requirements. Bidders do not have to submit any information in the bid submittal package to be in compliance with LEAP.

Post-award Submittals:

- **Prime Contractor LEAP Utilization Plan.** This form is to be completed and presented at the Pre-Construction Meeting.
- **LEAP Employee Verification Form.** This form is to be completed for every qualifying LEAP employee.
- **LEAP Weekly Payroll Report.** This form is to be completed and submitted with each certified payroll.

The City of Tacoma’s LEAP office enforces two mandatory requirements on City projects based on certain monetary thresholds.

Local Employment Utilization Goal - the Prime Contractor performing a qualifying public works project must ensure that 15 percent of the total labor hours worked on the project are performed by residents of the City of Tacoma or Economically Distressed Zip Codes whether or not any such person is an apprentice.

Apprenticeship Utilization Goal – for contracts above one-million dollars, the Prime Contractor performing a qualifying public works project must ensure that 15 percent of the total labor hours worked on the project are performed by Apprentices who are residents of the City of Tacoma or Tacoma Public Utilities Service Area. The accompanying LEAP Regulations, forms, and maps are included in these specifications.

*Exceptions: If the project is located outside of the retail service area of the Tacoma Public Utilities Service Area, then Apprentices may come from the county in which the work is performed.

This project is below $1 million and is thusly subject to the:

1. 15% Local Employment Utilization Goal

LEAP staff can assist contractors in the recruitment, screening and selection of qualified City of Tacoma residents, Economically Distressed Area residents, and Apprentices. Contractors may obtain further information by contacting the City’s LEAP Office at (253) 316-3057 or (253) 591-5590. The LEAP Office is located in the Tacoma Municipal Building, 747 Market Street, Room 900, Tacoma, WA 98402. www.cityoftacoma.org/leap
LEAP EMPLOYEE VERIFICATION FORM

Contractor/Sub: _______________________________ Specification Number: _______________________________

Project Description: ____________________________________________________________

Employee Name: _______________________________ Craft: _______________________________

Ethnic Group (optional): □ Asian/Pac Isl. □ Black □ Hispanic □ Native American □ White □ Other

Gender (optional): □ MALE □ FEMALE

Complete Physical Address (No PO Boxes): _____________________________________________

City: ___________ State: _______ Zip: _______ Telephone: ___________ Date of Hire: ___________

Apprenticeship County: ___________ Apprentice Registration I.D. (if applicable): _____________

Youth 18 – 24? Age: _______ Veteran? Copy of DD-214: _______

*******Please fill out entire form for tracking LEAP performance*******

LEAP qualified employee categories: (check all that apply and provide evidence for each check)

_____ a. Resident within the geographic boundaries of the City of Tacoma

_____ b. Resident within Economically Distressed ZIP Codes of the Tacoma Public Utilities Service Area

_____ c. WA State Approved Apprentice living in Tacoma Public Utilities Service Area

_____ d. WA State Approved Apprentice *(Only valid for contracts where 100% of work is performed outside of Pierce County)

Signature of Employee: _______________________________ Date: ________________________

Contractor Representative: _______________________________ Date: ________________________
LEAP EMPLOYEE VERIFICATION FORM

To be Completed by Contractor or Subcontractor

Please attach a legible copy of the following document(s) showing the address of residence as proof of local (Tacoma) and/or Pierce County residency and apprentice status, youth status, or veteran status.

For Youth - Copy of Birth Certificate or WA State ID or WA Driver's License (projects advertised after 05-20-13)

For Veterans – Copy of DD-214

Driver's License with current address

Utility Bill/Phone Bill/Cell Bill/Cable Bill with current address

Copy of current tax form W-4

Rental Agreement/Lease (residential)

Computer Printout from Other Government Agencies

Property Tax Records

Apprentice Registration I.D.

Food Stamp Award Letter

Housing Authority Verification

Insurance Policy (Residence/Auto)

*Any of the above must have a complete physical address verified by the www.govme.org website.

No PO Boxes

Contractor Representative: ________________________________ Date: ________________

Title: ___________________________________________________________________________
LEAP

Document Submittal Schedule

In the attached packet, you will find the LEAP forms that are required to be submitted by the Prime and Sub Contractors.

- **LEAP Abbreviated Program Requirements**: brief overview of LEAP Program requirements
- **Prime Contractor LEAP Utilization Plan**: to be submitted at the Pre-Construction Meeting *(Required by Prime Contractor Only)*
- **LEAP Employee Verification Form**: to be submitted on an ongoing basis for each qualified LEAP employee
- **LEAP Weekly Payroll Report**: must be attached and filled out to the front of each certified payroll
- **Tacoma Public Utilities Service Area Map, Economically Distressed ZIP Codes Map**: for your reference on LEAP-qualified zoning areas

In addition, the City of Tacoma will also require from the Prime Contractor and all its Subcontractors:

- **Weekly Certified Payrolls**: to be submitted via LCP Tracker weekly, biweekly or monthly with the LEAP Payroll Report attached as scheduled by the Prime
- **Statement of Intent to Pay Prevailing Wages**: to be submitted prior to commencing work
- **Affidavit of Wages Paid**: to be submitted upon completion of each contractor’s work
- **Local Resident/Pierce County Apprentice (State – Approved) Employee Verification Form**: to be submitted on an ongoing basis for each qualified LEAP employee
- **Document Verification**: provide required information when requested from LEAP Office

Please submit above documents as instructed by the LEAP Coordinator.

If you have any questions or request further information, please feel free to contact the City of Tacoma’s LEAP Program at (253) 591-5590 or email dtrevorrow@cityoftacoma.org
No Work Performed (NWP) Report

Prime/Sub Contractor: ___________________________________________________________

Specification Number: ___________________________________________________________

Project Description: _____________________________________________________________

Payroll Week Ending Date: _________________________ Payroll Number: __________

NO WORK PERFORMED

I, the undersigned, do hereby certify under penalty of perjury, that the information contained herein is true and correct.

Signature of Responsible Officer   Title   Date
# PRIME CONTRACTOR
## LEAP UTILIZATION PLAN

Failure to submit this plan at the Pre-Construction Meeting may result in Progress Payments being withheld.

### Part A

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<th>Contractor:</th>
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<tr>
<td>Specification Number:</td>
<td>Contract/Work Order Number(s):</td>
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<td>Project Description:</td>
<td>Notes:</td>
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### Part B

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<th>Trade or Craft</th>
<th>City of Tacoma Resident</th>
<th>Economic Distressed Area Resident</th>
<th>Tacoma Public Utilities Service Area Apprentice Resident</th>
<th>WA State Apprentice <em>(Contracts outside of TPU Service Area Only)</em></th>
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|--------| |

### Part C

Provide a description of how the Contractor plans to ensure that the LEAP Utilization Requirements on the project will be met. *(Use additional sheets if necessary)*

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Revised 01/2011 DT
General Instructions for completing Prime Contractor LEAP Utilization Plan

**Part A**
**Contractor/Contract Information Section:** The Prime Contractor is responsible for completing this section. Failure to submit this plan at the Pre-Construction Meeting may result in Progress Payments being withheld.

**Part B**
**Planned LEAP Hours Section:** This section should be completed by the Prime Contractor. The information required in Part B is described below.

**Trade or Craft:** Indicate the Trade or Craft being used.

**LEAP Employee Categories:** Indicate the number of hours that will be utilized by the Prime Contractor and all Sub Contractors for each craft and broken down by City of Tacoma Resident, City of Tacoma Apprentice, Youth, or Veteran, Pierce County Apprentice, Youth, or Veteran.

For Watershed Projects: King County Apprentice – Approved by Washington State and/or Seattle Renewal Community (CEZ) Resident.

For Hydro Projects: Area Residents (residing in either Pierce County or the County where the work is performed: Lewis, Mason, Grays Harbor or Thurston County), Tacoma Community Empowerment Zone Resident, City of Tacoma Residents.

**Totals:** Total the number of hours in each of the six (6) columns.

**Total Planned LEAP Utilization Hours:** This is the total number of hours planned on this project to satisfy the LEAP Utilization Requirement.

**Part C**
**Description of how the Contractor plans to ensure fulfillment of the LEAP Utilization Requirement:** This section is to be completed by the Prime Contractor. Please describe how you plan to satisfy the LEAP Utilization Requirement on this project. Provide a summary of your outreach and recruitment procedures to hire LEAP Qualified Employees to work on this project.
**Economically Distressed ZIP Codes**

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<th>200% Pov</th>
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“200% Pov” = People at or below 200% of the federal poverty line. (69th percentile)
“Unemployed” = Unemployment rate (45th percentile)
“25+ College” = People at or above 25 years old without a college degree. (75th percentile)
Apprentices may come from any of the ZIP codes listed under this page. If an apprentice lives in an Economically Distressed ZIP code, they may count towards those labor hours as well. Journeyman must be from the Economically Distressed ZIP codes.
Appendix C: Economically Distressed ZIP Codes Map

Puget Sound

[Map showing economically distressed ZIP codes]

City Limits

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Community & Economic Development Department
GIS Analysis & Data Service
4/26/2017

Map is for reference only.
PART IV

STATE PREVAILING WAGE RATES

AND

GENERAL REQUIREMENTS
PREVAILING WAGE RATES

This project requires prevailing wages under 39.12 RCW. Any worker, laborer, or mechanic employed in the performance of any part of the work shall be paid not less than the applicable prevailing rate of wage.

The project site is located in Pierce County.

The effective date for prevailing wages on this project will be the submittal deadline with these exceptions:
   a. If the project is not awarded within six months of the submittal deadline, the award date is the effective date.
   b. If the project is not awarded pursuant to a competitive solicitation, the date the contract is executed is the effective date.
   c. Janitorial contracts follow WAC 296-127-023.

Except for janitorial contracts, these rates shall apply for the duration of the contract unless otherwise noted in the solicitation.

Look up prevailing rates of pay, benefits, and overtime codes from this link:
https://secure.lni.wa.gov/wagelookup/

REQUIRED FILINGS

The contractor and all subcontractors covered under 39.12 RCW shall submit to the Department of Labor and Industries (L&I) for work provided under this contract:

1. A Statement of Intent to Pay Prevailing Wages must be filed with and approved by L&I upon award of contract.

2. An Affidavit of Wages Paid must be filed with and approved by L&I upon job completion.

Payments cannot be released by the City until verification of these filings are received by the engineer. Additional information regarding these filings can be obtained by calling the Department of Labor & Industries, Prevailing Wage at 360-902-5335, https://www.lni.wa.gov/ or by visiting their MY L&I account.
The Contractor (Contractor) shall maintain at least the minimum insurance set forth below. By requiring such minimum insurance, the City of Tacoma shall not be deemed or construed to have assessed the risk that may be applicable to Contractor under this Contract. Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.

1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) of every tier performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements applicable to Contractor and Contractor’s Subcontractor(s):

1.1. City of Tacoma reserves the right to approve or reject the insurance provided based upon the insurer, terms and coverage, the Certificate of Insurance, and/or endorsements.

1.2. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by City of Tacoma.

1.3. Contractor shall keep this insurance in force during the entire term of the Contract and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.

1.4. Insurance policies required under this Contract that name “City of Tacoma” as Additional Insured shall:
   1.4.1. Be considered primary and non-contributory for all claims.
   1.4.2. Contain a “Separation of Insured provision and a “Waiver of Subrogation” clause in favor of City of Tacoma.

1.5. Section 1.4 above does not apply to contracts for purchasing supplies only.

1.6. Verification of coverage shall include:
   1.6.1. An ACORD certificate or equivalent.
   1.6.2. Copies of all endorsements naming the City of Tacoma as additional insured and showing the policy number.
   1.6.3. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

1.7. Liability insurance policies, with the exception of Professional Liability and Workers’ Compensation, shall name the City of Tacoma and its officers, elected officials, employees, agents, and authorized volunteers as additional insured.
   1.7.1. No specific person or department should be identified as the additional insured.
   1.7.2. All references on certificates of insurance and endorsements shall be listed as “City of Tacoma”.
   1.7.3. The City of Tacoma shall be additional insured for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20
37 04 13 or the equivalent for the full available limits of liability maintained by the Contractor irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract and irrespective of whether the Certificate of Insurance describes limits lower than those maintained by the Contractor.

1.8. Contractor shall provide a Certificate of Insurance for each policy of insurance meeting the requirements set forth herein when Contractor provides the signed Contract for the work to City of Tacoma. Contractor shall provide copies of any applicable Additional Insured, Waiver of Subrogation, and Primary and Non-contributory endorsements. Contract or Permit number and the City Department must be shown on the Certificate of Insurance.

1.9. Insurance limits shown below may be written with an excess policy that follows the form of an underlying primary liability policy or an excess policy providing the required limit.

1.10. Liability insurance policies shall be written on an “occurrence” form, except for Professional Liability/Errors and Omissions, Pollution Liability, and Cyber/Privacy and Security.

1.11. If coverage is approved and purchased on a “Claims-Made” basis, Contractor warrants continuation of coverage, either through policy renewals or by the purchase of an extended reporting period endorsement as set forth below.

1.12. The insurance must be written by companies licensed or authorized in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best's Key Rating Guide www.ambest.com.

1.13. Contractor shall provide City of Tacoma notice of any cancellation or non-renewal of this required insurance within Thirty (30) calendar days.

1.14. Contractor shall not allow any insurance to be cancelled or lapse during any term of this Contract, otherwise it shall constitute a material breach of the Contract, upon which City of Tacoma may, after giving Five (5) business day notice to Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith; with any sums so expended to be repaid to City of Tacoma by Contractor upon demand, or at the sole discretion of City of Tacoma, offset against funds due Contractor from City of Tacoma.

1.15. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars ($25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.

1.16. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services has changed.
1.17. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made by City of Tacoma to Contractor.

1.18. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).

1.19. Failure by City of Tacoma to identify a deficiency in the insurance documentation provided by Contractor or failure of City of Tacoma to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor’s obligation to maintain such insurance.

1.20. If Contractor is a State of Washington or local government and is self-insured for any of the above insurance requirements, a certification of self-insurance shall be attached hereto and be incorporated by reference and shall constitute compliance with this Section.

2. CONTRACTOR

As used herein, "Contractor" shall be the Supplier(s) entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

3. SUBCONTRACTORS

It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage. Contractor shall provide evidence of such insurance upon City of Tacoma’s request.

4. REQUIRED INSURANCE AND LIMITS

The insurance policies shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve Contractor from liability in excess of such limits.

4.1 Commercial General Liability Insurance
Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars ($1,000,000) each occurrence and Two Million Dollars ($2,000,000) annual aggregate. The Commercial General Liability Insurance policy shall be written on an Insurance Services Office form CG 00 01 04 13 or its equivalent. Products and Completed Operations shall be maintained for a period of three years following Substantial Completion of the Work related to performing construction services.

This policy shall include product liability especially when a Contract solely is for purchasing supplies. The Commercial General Liability policy shall be endorsed to include:

4.2 A per project aggregate policy limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

4.3 Commercial (Business) Automobile Liability Insurance
Contractor shall maintain Commercial Automobile Liability policy with limits not less than One Million Dollars ($1,000,000) each accident for bodily injury and property damage and bodily injury and property damage coverage for owned (if any), non-owned, hired, or leased vehicles.
Commercial Automobile Liability Insurance shall be written using ISO form CA 00 01 or equivalent. Contractor must also maintain an MCS 90 endorsement or equivalent and a CA 99 48 endorsement or equivalent if “Pollutants” are to be transported.

4.4 **Workers’ Compensation**
Contractor shall comply with Workers’ Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states. The Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

4.5 **Employers’ Liability Insurance**
Contractor shall maintain Employers’ Liability coverage with limits not less than One Million Dollars ($1,000,000) each employee, One Million Dollars ($1,000,000) each accident, and One Million Dollars ($1,000,000) policy limit.

4.6 **Excess or Umbrella Liability Insurance**
Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than Three Million Dollars ($3,000,000) per occurrence and in the aggregate. This coverage shall apply, at a minimum, in excess of primary underlying Commercial General Liability, Employer’s Liability, Pollution Liability, Marine General Liability, Protection and Indemnity, and Automobile Liability if required herein.

4.7 **Pollution Liability Insurance**
Contractor shall maintain a Pollution Liability or Environmental Liability Insurance providing coverage, including investigation and defense costs, for bodily injury and property damage, including loss of use of damaged property or of property that has been physically damaged or destroyed.

Such coverage shall provide both on-site and off-site cleanup costs and cover gradual and sudden pollution, and include in its scope of coverage the City of Tacoma damage claims for loss arising out of Contractor’s work with limits not less than One Million Dollars ($1,000,000) each occurrence and Two Million Dollars ($2,000,000) aggregate.

This policy shall include Environmental Resource Damage coverage and Hazardous Substance Removal. If such coverage is provided on a “claims-made” basis, the following additional conditions must be met:

4.7.1 The policy must contain no retroactive date, or the retroactive date must precede the commencement date of this Contract.

4.7.2 The extended reporting period (tail) must be purchased to cover a minimum of Six (6) years beyond completion of work.

4.8 **Other Insurance**
Other insurance may be deemed appropriate to cover risks and exposures related to the scope of work or changes to the scope of work required by City of Tacoma. The costs of such necessary and appropriate Insurance coverage shall be borne by Contractor.