SPECIFICATION NO.
ES21-0004F

MADISON DISTRICT GREEN INFRASTRUCTURE PROJECT

Project No.
Surface Water – ENV-03031-25
Wastewater – ENV-04023-18
Public Works – PWK-00438-18
Water – WTR-00604-01-13

Frozen in part by the Washington State Department of Ecology
Project No. WQC-2018-TacoES-00100
CITY OF TACOMA
ENVIRONMENTAL SERVICES DEPARTMENT
REQUEST FOR BIDS, SPECIAL PROVISIONS, BID PROPOSAL AND CONTRACT
FOR
SPECIFICATION NO. ES21-0004F
MADISON DISTRICT GREEN INFRASTRUCTURE PROJECT
PROJECT NO. ENV-03031-25

For Division 1 of this Part III-A Specification
Erik Ward, P.E.
Science & Engineering Division
Environmental Services Department
326 East D Street
Tacoma, Washington 98421-1801

For Section 1-07.23, 1-10, 8-21, 8-22 of this Part III-A Specification
Brennan Kid, P.E.
Engineering Division
Public Works Department
Room 644, Tacoma Municipal Building
Tacoma, Washington 98421-2711

For Division 2-9 of this Part III-A Specification
Brian Wang, P.E.
Engineering Division
Public Works Department
Room 544 Tacoma Municipal Building
Tacoma, Washington 98421-2711
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City of Tacoma
Environmental Services/Science & Engineering Division

REQUEST FOR BIDS ES21-0004F
MADISON DISTRICT GREEN INFRASTRUCTURE PROJECT

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, July 5th, 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>By Email:</th>
<th><a href="mailto:bids@cityoftacoma.org">bids@cityoftacoma.org</a></th>
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<td>Maximum file size: 35 MB. Multiple emails may be sent for each submittal.</td>
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<td>Tacoma Public Utilities</td>
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<td>3628 S 35th Street</td>
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<td>Tacoma, WA 98409</td>
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<tr>
<td>Tacoma Public Utilities Administration Building North</td>
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<tr>
<td>Guard House (east side of main building)</td>
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<td>3628 S 35th Street</td>
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<tr>
<td>Tacoma Public Utilities</td>
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<tr>
<td>PO Box 11007</td>
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<tr>
<td>Tacoma, WA 98411-0007</td>
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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, after 1:00 PM, 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 by accessing the City of Tacoma Purchasing website at www.TacomaPurchasing.org.

- Register for the Bid Holders List to receive notices of addenda, questions and answers and related updates.
- Click here to see a list of vendors registered for this solicitation.

Pre-Proposal Meeting: A pre-proposal meeting will be held via conference call from 11:00 AM – 12:30 PM on June 27th, 2022 to answer questions regarding the project in general as well as the Disadvantaged Business Enterprise Program (DBE) requirements included in the Contract. Prospective bidders are strongly urged to attend this meeting. You can join this meeting by calling +1 (888) 850-4523 and entering: 544766
**Project Scope:** The Madison District Green Infrastructure project is replacing approximately 18 blocks of residential roadways between South 43rd Street and South 47th Street and between South Tacoma Way and Pine Street with approximately two standard asphalt blocks and approximately 15 pervious asphalt blocks with ballasted sidewalk. Work also includes replacing 3400LF of Wastewater, replacing or extending 1300LF of Surface Water pipe, and replacing 6400LF and removing 2000LF of Water pipe. Driveways, curb ramps, street trees, and channelization are included as well.

**Estimate:** $10.5 Million to $11.5 Million

**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, 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.

**Addtional Information:** Requests for information regarding the specifications may be obtained by contacting Dawn DeJarlais, Senior Buyer by email to ddejarlais@cityoftacoma.org

**Protest Policy:** City of Tacoma protest policy, located at 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. **BID PROPOSAL SIGNATURE SHEET**: 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. **NON-COLLUSION DECLARATION**: Must be returned by the bidder and included with the submittal.

**FAILURE TO RETURN THE AFOREMENTIONED NON-COLLUSION DECLARATION AND TO SUBMIT SAID DECLARATION WITH THE BID SHALL BE DUE CAUSE FOR REJECTION OF BID.**

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

6. **STATE RESPONSIBILITY AND RECIPROCAL BID PREFERENCE INFORMATION**: Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2010).
7. **LIST OF SUBCONTRACTOR CATEGORIES OF WORK:** Bidder shall list all subcontractor(s) proposed to perform the work of heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW and electrical as described in Chapter 19.28 RCW. Bidder shall also list all subcontractor(s) proposed to perform the work of structural steel installation and/or rebar installation.

   **FAILURE TO LIST SUBCONTRACTORS WILL RESULT IN THE BID BEING NON-RESPONSIVE AND THEREFORE VOID.**

8. **STATEMENT OF QUALIFICATIONS:** The Contractor or subcontractor shall fill out this form in its entirety proving they meet the requirements as outlined in these specifications. It shall be the sole determination of the Engineer to determine if the Contractor/subcontractor does in fact meet the requirements. This is a condition of award of the contract.

9. **EQUAL EMPLOYMENT OPPORTUNITIES:** The City of Tacoma’s Prime Contractor’s Pre-Work Form shall be completed by the bidder and submitted with the bid. This form is used to determine the bidder’s EEO practices in accordance with Executive Order 11246 and TMC 10.26.

10. **CERTIFICATE OF NONSEGREGATED FACILITIES**

11. **DBE, MBE, WBE UTILIZATION CERTIFICATE:** For federal purposes, DBEs proposed to be used on this project shall be shown as a DBE listed in the current Office of Minority and Women’s Business Enterprises (OMWBE) Directory, or who can produce written proof from OMWBE showing they were certified as a DBE as of the date fixed for opening bids. When DBE, MBE, WBE goals are established failure to submit this form will render the proposal as non-responsive. The federal DBE, MBE, WBE goal for this project is 0%, 7%, and 6% respectively.

12. **DBE SUBCONTRACTOR PERFORMANCE FORM**

13. **SUBCONTRACTORS BIDDER LIST**

14. **ACKNOWLEDGEMENT:** Must be signed by the bidder and be subscribed and sworn to before a Notary Public. Be sure all parties whose signatures are legally necessary have signed, whether the bidder be an individual, partnership or corporation.

**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. 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.

**STATE INTEREST EXCLUSION CLAUSE:** It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to this contract or any subcontract.

**DAVIS BACON CLAUSE:** The Successful bidder will be required to conform to the wage requirements prescribed by the federal Davis-Bacon and Relate Acts which requires that all laborers and mechanics employed by contractors and subcontractors performing on contracts funded in whole or in part by SRF appropriations in excess of $2000 pay their laborers and mechanics not less than the prevailing wage rates and fringe benefits, and determined by the Secretary of Labor, for corresponding classes of laborers and mechanics employed on similar projects in the 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 and;
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.
WASHINGTON STATE DEPARTMENT OF ECOLOGY FUNDING STATEMENT

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract resulting from this solicitation for bids.
The following clauses will be incorporated into construction contracts receiving financial assistance from the Washington State Department of Ecology Water Pollution Control Revolving Fund. In the event of conflict within the contract these clauses shall take precedence.

**Compliance with State and Local Laws**
The Contractor shall assure compliance with all applicable federal, state, and local laws, requirements, and ordinances as they pertain to the design, implementation, and administration of the approved project.

**State Interest Exclusion**
It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State Of Washington nor any of its departments or employees are, or shall be, a party to this contract or any subcontract.

**Third Party Beneficiary**
Partial funding of this project is being provided through the Washington State Department of Ecology Water Pollution Control Revolving Fund. All parties agree that the State of Washington shall be, and is hereby, named as an express third-party beneficiary of this contract, with full rights as such.

**Access to the construction site and to records**
The contractor shall provide for the safe access to the construction site and to the contractor's records by Washington State Department of Ecology and Environmental Protection Agency (EPA) personnel.

The Contractor shall maintain accurate records and accounts to facilitate the Owner’s audit requirements and shall ensure that all subcontractors maintain auditable records.

These Project records shall be separate and distinct from the Contractor’s other records and accounts.

All such records shall be available to the Owner and to Washington State Department of Ecology and EPA personnel for examination. All records pertinent to this project shall be retained by the Contractor for a period of three (3) years after the final audit.
**Protection of the Environment**
No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

**Funding Recognition**
All site-specific projects must have a sign of sufficient size to be seen from nearby roadways acknowledging department financial assistance and left in place throughout the life of the project. Department logos must be on all signs and documents. Logos will be provided as needed.

**Inadvertent Discovery Of Archeological Resources**
The contractor shall obtain a copy of the Inadvertent Discovery Plan from the Project Owner. The contractor shall keep a copy of the inadvertent discovery plan for the project on the work site at all times. The contractor shall immediately stop all work if human remains, cultural, or archeological resources are discovered in the course of construction. The contractor shall follow the inadvertent discovery plan in dealing with the human remains, cultural, or archeological resources.

**Use Of American Iron And Steel**
This provision applies to projects for the construction, alteration, maintenance, or repair of a “treatment works” as defined in the Federal Water Pollution Control Act (33 USC 1381 et seq.). This provision does not apply if the engineering plans and specifications for the project were approved by the Ecology prior to January 17, 2014.

The Contractor acknowledges to and for the benefit of the Project Owner and the State of Washington that it understands the goods and services under this Agreement are being funded with monies made available by the Water Pollution Control Revolving Fund which contains provisions commonly known as “American Iron and Steel;” that requires all of the iron and steel products used in the project be produced in the United States (“American Iron and Steel Requirements”) including iron and steel products provided by the Contactor pursuant to this Agreement. “Iron and Steel products” means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

The Contractor hereby represents and warrants to and for the benefit of the Project Owner and the State that:

(a) the Contractor has reviewed and understands the American Iron and Steel Requirements,
(b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirements, unless a waiver of the requirements is approved, and
(c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the
American Iron and Steel Requirements, as may be requested by the Project Owner or the State.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Project Owner or State to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney’s fees) incurred by the Project Owner or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Project Owner). While the Contractor has no direct contractual privity with the State, as a lender to the Project Owner for the funding of its project, the Project Owner and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of the Agreement necessary to give this paragraph force or effect shall be amended or waived without the prior written consent of the State.

**Prevailing Wage**

The work performed under this contract is subject to the wage requirements of the Davis-Bacon Act. The Contractor shall conform to the wage requirements prescribed by the federal Davis-Bacon and Relate Acts which requires that all laborers and mechanics employed by contractors and subcontractors performing on contracts funded in whole or in part by SRF appropriations in excess of $2000 pay their laborers and mechanics not less than the prevailing wage rates and fringe benefits, and determined by the Secretary of Labor, for corresponding classes of laborers and mechanics employed on similar projects in the area. Attachment 1 to this specification insert and an up to date wage determination shall be included in full into this contract and in any subcontract in excess of $2,000. Wage determinations can be found at [http://www.wdol.gov](http://www.wdol.gov).

The Contractor agrees that the Contractor is legally and financially responsible for compliance with the Davis-Bacon Act wage rules. All laborers and mechanics employed by contractors and subcontractors employed as part of this contract shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

**Certification Regarding Suspension, Debarment, Ineligibility Or Voluntary Exclusion**

1. The CONTRACTOR, by signing this agreement, certifies that it is not suspended, debarred, proposed for debarment, declared ineligible or otherwise excluded from contracting with the federal government, or from receiving contracts paid for with federal funds. If the CONTRACTOR is unable to certify to the statements contained in the certification, they must provide an explanation as to why they cannot.

2. The CONTRACTOR shall provide immediate written notice to the Department if at any time the CONTRACTOR learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.

3. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and
voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department for assistance in obtaining a copy of those regulations.

4. The CONTRACTOR agrees it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under the applicable Code of Federal Regulations, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction.

5. The CONTRACTOR further agrees by signing this agreement, that it will include this clause titled “Certification Regarding Suspension, Debarment, Ineligibility Or Voluntary Exclusion” without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

6. Pursuant to 2CFR180.330, the CONTRACTOR is responsible for ensuring that any lower tier covered transaction complies with certification of suspension and debarment requirements.

7. CONTRACTOR acknowledges that failing to disclose the information required in the Code of Federal Regulations may result in the delay or negation of this funding agreement, or pursuance of legal remedies, including suspension and debarment.

8. CONTRACTOR agrees to keep proof in its agreement file, that it, and all lower tier recipients or contractors, are not suspended or debarred, and will make this proof available to the Department upon request. RECIPIENT/CONTRACTOR must run a search in http://www.sam.gov/ and print a copy of completed searches to document proof of compliance.

This term and condition supersedes EPA Form 5700-49, “Certification Regarding Debarment, Suspension, and Other Responsibility Matters.”

**Disadvantaged Business Enterprises**

**General Compliance (40 CFR Part 33).**
The contractor shall comply with the requirements of the Environmental Protection Agency’s Program for Participation By Disadvantaged Business Enterprises (DBE) 40 CFR Part 33.

**Non-discrimination Provision (40 CFR Appendix A to Part 33).**
The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

The contractor shall comply with all federal and state nondiscrimination laws, including, but not limited to Title VI and VII of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975,
and Chapter 49.60 RCW, Washington’s Law Against Discrimination, and 42 U.S.C. 12101 et seq, the Americans with Disabilities Act (ADA).

The contractor agrees to make the following good faith efforts whenever procuring subcontracts, equipment, services and supplies. The contractor shall retain records documenting compliance with the following six good faith efforts.

1. Ensuring Disadvantaged Business Enterprises are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing Disadvantaged Business Enterprises on solicitation lists and soliciting them whenever they are potential sources. Qualified Women and Minority business enterprises may be found on the Internet at www.omwbe.wa.gov or by contacting the Washington State Office of Minority and Women’s Enterprises at (866) 208-1064.

2. Making information on forthcoming opportunities available to Disadvantaged Business Enterprises and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by Disadvantaged Business Enterprises in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of thirty (30) calendar days before the bid or proposal closing date.

3. Considering in the contracting process whether firms competing for large contracts could subcontract with Disadvantaged Business Enterprises. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by Disadvantaged Business Enterprises in the competitive process.

4. Encourage contracting with a consortium of Disadvantaged Business Enterprises when a contract is too large for one of these firms to handle individually.


6. If the prime contractor awards subcontracts, requiring the subcontractors to take the six good faith efforts in paragraphs 1 through 5 above.

MBE/WBE Reporting (40 CFR Part 33 Parts 33.302, 33.502 and 33.503).

1. The contractor shall complete the DBE Subcontractor Utilization Form (EPA Form 6100-4).

2. The contractor shall require all DBE subcontractors to complete the DBE Subcontractor Performance Form (EPA Form 6100-3). The DBE Subcontractor Performance Form is only required to be completed by certified DBE subcontractors.

3. The contractor shall submit DBE Subcontractor Utilization Form (EPA Form 6100-4) and all completed DBE Subcontractor Performance Form(s) (EPA Form 6100-3) as part of the bid, or within one hour after the published bid submittal time (consistent with RCW 39.30.060)

4. The contractor shall provide DBE Subcontractor Participation Form (EPA Form 6100-2) to all DBE subcontractors. These subcontractors may submit Subcontractor Participation
Form (EPA Form 6100-2) to the EPA Region 10 DBE coordinator in order to document issues or concerns with their usage or payment for a subcontract.

The 6100 forms can be found at: https://ecology.wa.gov/About-us/How-we-operate/Grants-loans/Find-a-grant-or-loan/Water-Quality-grants-and-loans/Facility-project-resources

Bidders List (40 CFR Part 33 part 33.501)
All bidders shall submit the following information for all firms that bid or quote on subcontracts (including both DBE and non-DBE firms) as part of the bid, or within one hour after the published bid submittal time (consistent with RCW 39.30.060).

1. Firm’s name with point of contact;
2. Firm’s mailing address, telephone number, and e-mail address;
3. The work on which the firm bid or quoted, and when the firm bid or quoted; and
4. Firm’s status as an MBE/WBE or non-MBE/WBE.

The contractor shall comply with the contract administration provisions of 40 CFR, Part33.302.

1. The contractor shall pay its subcontractor for satisfactory performance no more than 30 days from the contractor’s receipt of payment.
2. The contractor shall notify the owner in writing prior to any termination of a DBE subcontract.
3. If a DBE subcontractor fails to complete work under the subcontract for any reason, the contractor shall employ the six good faith efforts when soliciting a replacement subcontractor.
4. The contractor shall employ the six good faith efforts even if the contractor has achieved its fair share objectives.

Equal Opportunity (EEO)
If this Contract exceeds $10,000, the Contractor shall comply with Executive Order 11246, “Equal Employment Opportunity,” as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and as supplemented by regulations at 41 CFR part 60.

Contractor’s compliance with Executive Order 11246 shall be based on implementation of the Equal Opportunity Clause, and specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4.

Equal Opportunity Clause (41 CFR part 60-1.4(b))
During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take
affirmative action to ensure that applicants are employed, and that employees are treated
during employment without regard to their race, color, religion, sex, or national origin.
Such action shall include, but not be limited to the following: Employment, upgrading,
demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates
of pay or other forms of compensation; and selection for training, including
apprenticeship. The contractor agrees to post in conspicuous places, available to
employees and applicants for employment, notices to be provided setting forth the
provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on
behalf of the contractor, state that all qualified applicants will receive considerations for
employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with which he
has a collective bargaining agreement or other contract or understanding, a notice to be
provided advising the said labor union or workers' representatives of the contractor's
commitments under this section, and shall post copies of the notice in conspicuous places
available to employees and applicants for employment.

4. The contractor will comply with all provisions of Executive Order 11246 of September
24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order
11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of
Labor, or pursuant thereto, and will permit access to his books, records, and accounts by
the administering agency and the Secretary of Labor for purposes of investigation to
ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this
contract or with any of the said rules, regulations, or orders, this contract may be
canceled, terminated, or suspended in whole or in part and the contractor may be declared
ineligible for further Government contracts or federally assisted construction contracts in
accordance with procedures authorized in Executive Order 11246 of September 24, 1965,
and such other sanctions may be imposed and remedies invoked as provided in Executive
Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of
Labor, or as otherwise provided by law.

7. The contractor will include the portion of the sentence immediately preceding paragraph
(1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase
order unless exempted by rules, regulations, or orders of the Secretary of Labor issued
pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such
provisions will be binding upon each subcontractor or vendor. The contractor will take
such action with respect to any subcontract or purchase order as the administering agency
may direct as a means of enforcing such provisions, including sanctions for
noncompliance: Provided, however, That in the event a contractor becomes involved in,
or is threatened with, litigation with a subcontractor or vendor as a result of such
direction by the administering agency the contractor may request the United States to
enter into such litigation to protect the interests of the United States.

Federal Equal Employment Opportunity Construction Contract Specifications
(Executive Order 11246 and 41 CFR part 60-4.3)

1. As used in these specifications:
a. “Covered area” means the geographical area described in the solicitation from which this contract resulted;
b. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
d. “Minority” includes:
   i. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
   ii. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
   iii. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
   iv. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60–4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
   b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
   c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
   d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
   e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
   f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in
meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60–3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60–4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the
indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Reporting Requirements (EEO-1)
On or before September 30 of each year, a contractor that is subject to Title VII of the Civil Rights Act of 1964, as amended, and that has 100 or more employees, shall file with the EEOC or its delegate an “Employer Information Report EEO-1”. Instructions on how to file are available on the EEOC’s website at http://www.eeoc.gov/employers/eeo1survey/howtofile.cfm. The contractor shall retain a copy of the most recent report filed.

Segregated Facilities (41 CFR part 60-1.8)
The contractor shall ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor’s obligation extends further to ensuring that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. This obligation extends to all contracts containing the equal opportunity clause regardless of the amount of the contract. The term “facilities,” as used in this section, means waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, wash rooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees; Provided, That separate or single-user restrooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

Attachments: (All attachments except item 1 are in other locations of this specification.)

1. Wage Rate Requirements For Subrecipients
2. Current Wage Rate Determination (to be provided by project owner)
3. Certification Of Nonsegregated Facilities
4. Notice To Labor Unions Or Other Organization Of Workers: Non-Discrimination In Employment
5. EPA Form 6100-4, EPA Form 6100.3,
ATTACHMENT 1 - WAGE RATE REQUIREMENTS FOR SUBRECIPIENTS. (To be included in full in any contract in excess of $2,000)

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact Lorraine Fleury at fleury.lorraine@epa.gov or at 215-814-2341 of EPA, Region III Grants and Audit Management Branch for guidance. The recipient or subrecipient may also obtain additional guidance from DOL’s web site at http://www.dol.gov/whd/

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Appropriations Act, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.
(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient’s contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL’s wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient’s contractor must be compensated for any increases in wages resulting from the use of DOL’s revised wage determination.


(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2012 Appropriations Act, the following clauses:

(1) Minimum wages.

   (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

   Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably
anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the subgrant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional
Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/whd/programs/dbra/wh347.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--
(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and
Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).


4. **Contract Provision for Contracts in Excess of $100,000.**

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act.
These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification
(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor’s submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at http://www.dol.gov/whd/america2.htm.
PART I

BID PROPOSAL AND CONTRACT FORMS
BID PROPOSAL

SPECIFICATION NO. ES21-0004F

Madison District Green Infrastructure Project

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. ENV-03031-25 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.

3. 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 State Amendments to the Standard Specifications. Items marked with a * signifies both rules may apply.

### SCHEDULE A: ROADWAY IMPROVEMENTS (Rule 171)

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
</tr>
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<tbody>
<tr>
<td>R1. 1-05</td>
<td>Project Red Line Drawings</td>
<td>1</td>
<td>Lump Sum</td>
<td>$ __________</td>
</tr>
<tr>
<td>R2. 1-07</td>
<td>SPCC Plan</td>
<td>1</td>
<td>Lump Sum</td>
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<tr>
<td>R3. 1-09</td>
<td>Mobilization</td>
<td>1</td>
<td>Lump Sum</td>
<td>$ __________</td>
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<tr>
<td>R4. 1-10</td>
<td>Pedestrian Traffic Control</td>
<td>1</td>
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<td>Project Temporary Traffic Control</td>
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<td>ITEM NO.</td>
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<td>UNIT PRICE</td>
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<tr>
<td>R6. 2-01</td>
<td>Clearing and Grubbing</td>
<td>1 Lump Sum</td>
<td>Lump Sum</td>
<td>$ _________</td>
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<tr>
<td>R7. 2-01</td>
<td>Certified Arborist</td>
<td>1 Force Account</td>
<td>Estimated</td>
<td>$ 20,000</td>
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<tr>
<td>R8. 2-02</td>
<td>Removal of Structures &amp; Obstructions</td>
<td>1 Lump Sum</td>
<td>Lump Sum</td>
<td>$ _________</td>
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<td>R9. 2-03</td>
<td>Roadway Excavation, Incl. Haul</td>
<td>12,500 Cu. Yd.</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R10. 2-03</td>
<td>Gravel Borrow Incl. Haul</td>
<td>200 Ton</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R11. 2-12</td>
<td>Construction Geosynthetic for Separation</td>
<td>14,350 Sq. Yd.</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R12. 2-14</td>
<td>Remove Existing Pavement, Type I Class A2</td>
<td>10,500 Sq. Yd.</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R13. 2-14</td>
<td>Remove Existing Pavement, Type I, Class 4A</td>
<td>13,000 Sq. Yd.</td>
<td>$ _________</td>
<td>$ _________</td>
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<td>R14. 2-14</td>
<td>Remove Existing Pavement, Type I, Class C6</td>
<td>2,750 Sq. Yd.</td>
<td>$ _________</td>
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<tr>
<td>R15. 2-15</td>
<td>Remove Curb</td>
<td>4,600 Lin. Ft.</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R16. 4-04</td>
<td>Crushed Surfacing Top Course</td>
<td>750 Ton</td>
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<td>$ _________</td>
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<tr>
<td>R17. 4-04</td>
<td>Crushed Surfacing Base Course</td>
<td>2,200 Ton</td>
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<td>$ _________</td>
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<td>R18. 4-04</td>
<td>Permeable Ballast</td>
<td>5,350 Ton</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R19. 4-05</td>
<td>Filter Sand</td>
<td>5,100 Ton</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R20. 4-06</td>
<td>Permeable Asphalt Treated Base</td>
<td>3,400 Ton</td>
<td>$ _________</td>
<td>$ _________</td>
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<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
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<tr>
<td>R21.</td>
<td>PHMA CL ½” PG 58V-22</td>
<td>2,700 Ton</td>
<td>$__________</td>
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<td>R22.</td>
<td>HMA for Approach CL ½” PG 58H-22</td>
<td>150 Sq. Yard</td>
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<tr>
<td>R23.</td>
<td>HMA CL ½” PG 58H-22</td>
<td>1,600 Ton</td>
<td>$__________</td>
<td>$___________</td>
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<tr>
<td>R24.</td>
<td>Adjust Existing Storm Filter</td>
<td>1 Each</td>
<td>$__________</td>
<td>$___________</td>
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<tr>
<td>R25.</td>
<td>Adjust Existing Catch Basin, Furnish new Frame &amp; Grate</td>
<td>11 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>R26.</td>
<td>Adjust Existing Valve Chamber to Grade</td>
<td>34 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>R27.</td>
<td>Adjust Existing Manhole Furnish New Frame &amp; Lid</td>
<td>21 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>R28.</td>
<td>Pothole Existing Utility</td>
<td>5 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>R29.</td>
<td>Residential Storm Drain</td>
<td>5 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>R30.</td>
<td>Erosion/Water Pollution Control</td>
<td>1 Force Account</td>
<td>$__________</td>
<td>$15,000</td>
</tr>
<tr>
<td>R31.</td>
<td>Stormwater Pollution Prevention Plan (SWPPP)</td>
<td>1 Lump Sum</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>R32.</td>
<td>NPDES Construction Stormwater General Permit</td>
<td>1 Lump Sum</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>R33.</td>
<td>Inlet Protection</td>
<td>44 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>R34.</td>
<td>Street Cleaning</td>
<td>300 Hour</td>
<td>$__________</td>
<td>$___________</td>
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<tr>
<td>R35.</td>
<td>Landscape Restoration</td>
<td>1 Force Account</td>
<td>$__________</td>
<td>$50,000</td>
</tr>
<tr>
<td>R36.</td>
<td>Plant Selection ‘Styrax Japonicus’</td>
<td>64 Each</td>
<td>$__________</td>
<td>$___________</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
<td>---------</td>
<td>------------------</td>
<td>--------------------</td>
<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>R37. 8-02</td>
<td>Plant Selection ‘Tsuga Mertensen’</td>
<td>63 Each</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R38. 8-02</td>
<td>Plant Selection ‘Magnolia Grandiflora’</td>
<td>64 Each</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R39. 8-02</td>
<td>Plant Selection ‘Syringa Reticulata’</td>
<td>66 Each</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R40. 8-02</td>
<td>Plant Selection ‘Quercus Garryana’</td>
<td>55 Each</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R41. 8-02</td>
<td>Seeding, Fertilizing &amp; Mulching</td>
<td>5,885 Sq. Yard</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R42. 8-02</td>
<td>Topsoil Type A</td>
<td>5,885 Sq. Yard</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R43. 8-04</td>
<td>Cement Conc. Traffic Curb &amp; Gutter</td>
<td>3,650 Lin. Ft.</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R44. 8-04</td>
<td>Cement Conc. Pedestrian Curb</td>
<td>750 Lin. Feet</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R45. 8-04</td>
<td>Cement Conc. Traffic Curb &amp; Gutter</td>
<td>8,700 Lin. Feet</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R46. 8-04</td>
<td>Type “D” Mountable Barrier Curb</td>
<td>350 Lin. Yd.</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R47. 8-04</td>
<td>Pavement Separation Barrier Curb</td>
<td>550 Lin. Feet</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R48. 8-06</td>
<td>Cement Conc. Driveway Entrance</td>
<td>3,500 Sq. Yard</td>
<td>$ _________</td>
<td>$ _________</td>
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<tr>
<td>R49. 8-12</td>
<td>Chain Link Fence</td>
<td>450 Lin. Ft.</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R50. 8-12</td>
<td>Wood Fence</td>
<td>100 Lin. Ft.</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R51. 8-13</td>
<td>Poured Monument</td>
<td>10 Each</td>
<td>$ _________</td>
<td>$ _________</td>
</tr>
<tr>
<td>R52. 8-14</td>
<td>Cement Conc. Sidewalk</td>
<td>3,350 Sq. Yard</td>
<td>$ _________</td>
<td>$ _________</td>
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</tbody>
</table>

Contractor’s Name: ____________________________
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<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>R53. 8-04</td>
<td>Cement Conc. Curb Ramp</td>
<td>73 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>R54. 8-18</td>
<td>Relocate Mailbox</td>
<td>1 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>R55. 8-21</td>
<td>Permanent Signing</td>
<td>1 Lump Sum</td>
<td>Lump Sum</td>
<td>$_________</td>
</tr>
<tr>
<td>R56. 8-22</td>
<td>Plastic Line</td>
<td>336 Lin. Ft.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>R57. 8-22</td>
<td>Plastic Crosswalk</td>
<td>260 Lin. Ft.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>R58. 8-40</td>
<td>Traffic Circle</td>
<td>4 Each</td>
<td>$_________</td>
<td>$_________</td>
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### SCHEDULE B: STORM SEWER IMPROVEMENTS (Rule 171)

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1. 2-09</td>
<td>Structure Excavation Class B</td>
<td>1,800 Cu. Yd.</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S2. 2-09</td>
<td>Shoring or Extra Excavation Class B</td>
<td>26,900 Sq. Ft.</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S3. 2-16</td>
<td>Remove Catch Basin</td>
<td>24 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S4. 2-16</td>
<td>Remove Manhole</td>
<td>6 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S5. 5-04</td>
<td>Temporary HMA CL 1/2&quot; PG 58H-22, 2-Inch Minimum Depth, Installed &amp; Removed</td>
<td>800 Sq. Yd.</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S6. 7-05</td>
<td>Catch Basin Type 2</td>
<td>1 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S7. 7-05</td>
<td>Catch Basin Type 1</td>
<td>35 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S8. 7-05</td>
<td>Manhole 48-In. Diam. Type 1</td>
<td>12 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S9. 7-05</td>
<td>Manhole 60 In. Diam. Type 3</td>
<td>1 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S10. 7-05</td>
<td>Manhole 60-In. Diam. Type 1</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S11. 7-05</td>
<td>Manhole Additional Height 48 In. Diam. Type 1</td>
<td>3 Lin. Feet</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S12. 7-05</td>
<td>Connect New 6- In. Sewer Pipe to Existing Structure</td>
<td>3 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S13. 7-05</td>
<td>Connect new 12-In. Sewer Pipe to Existing Structure</td>
<td>10 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>S14. 7-05</td>
<td>Reconnect Existing 8-In. Sewer Pipe to new Structure</td>
<td>1 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>S15. 7-05</td>
<td>Reconnect Existing 10-In. Sewer Pipe to New Structure</td>
<td>2 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S16. 7-05</td>
<td>Reconnect Existing 12-In. Sewer Pipe to New Structure</td>
<td>6 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S17. 7-05</td>
<td>Reconnect Existing 15-In. Sewer Pipe to New Structure</td>
<td>7 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S18. 7-05</td>
<td>Reconnect Existing 18-In. Sewer Pipe to New Structure</td>
<td>4 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S19. 7-05</td>
<td>Reconnect Existing 21-In. Sewer Pipe to New Structure</td>
<td>1 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S20. 7-05</td>
<td>Reconnect Existing 24-In. Sewer Pipe to New Structure</td>
<td>1 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S21. 7-05</td>
<td>C900 Storm Sewer Pipe 12 In. Diam.</td>
<td>24 Lin. Feet</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S22. 7-08</td>
<td>Temporary Storm Sewer Bypass Plan</td>
<td>1 Lump Sum</td>
<td>$________</td>
<td></td>
</tr>
<tr>
<td>S23. 7-08</td>
<td>Temporary Storm Sewer Bypass Plan</td>
<td>1 Lump Sum</td>
<td>$________</td>
<td></td>
</tr>
<tr>
<td>S24. 7-08</td>
<td>CDC for Pipe Abandonment</td>
<td>1 Cu. Yard</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S25. 7-08</td>
<td>Plugging Existing Pipe</td>
<td>1 Each</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S26. 7-17</td>
<td>Removal and Replacement of Unsuitable Material Incl. Haul</td>
<td>1,275 Cu. Yd.</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S27. 7-17</td>
<td>PVC Storm Sewer Pipe 12 In. Diam.</td>
<td>1,385 Lin. Ft.</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S28. 7-17</td>
<td>PVC Storm Sewer Pipe 4 In. Diam.</td>
<td>14 Lin. Ft.</td>
<td>$_______</td>
<td>$_________</td>
</tr>
<tr>
<td>S29. 7-17</td>
<td>Ductile Iron Storm Sewer Pipe 12-In. Diam.</td>
<td>651 Lin. Ft.</td>
<td>$_______</td>
<td>$_________</td>
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# SCHEDULE C: WASTEWATER SEWER IMPROVEMENTS (Rule 170)

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<tr>
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<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
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</thead>
<tbody>
<tr>
<td>WW1. 2-09</td>
<td>Structure Excavation Class B</td>
<td>7,550 Cu. Yd.</td>
<td>$</td>
<td></td>
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<tr>
<td>WW2. 2-09</td>
<td>Shoring or Extra Excavation Class B</td>
<td>95,100 Sq. Ft.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW3. 2-16</td>
<td>Remove Manhole</td>
<td>14 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW4. 5-04</td>
<td>Temporary HMA CL 1/2&quot; PG 58H-22, 2-Inch Minimum Depth, Installed &amp; Removed</td>
<td>2350 Sq. Yd.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW5. 7-05</td>
<td>Manhole 48-In. Diam. Type 1</td>
<td>5 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW6. 7-05</td>
<td>Manhole 60 In. Diam Type 1</td>
<td>9 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW7. 7-05</td>
<td>Manhole 72 In. Diam. Type 1</td>
<td>1 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW8. 7-05</td>
<td>Manhole Additional Height 60 In. Diam. Type 1</td>
<td>88 Lin. Ft.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW9. 7-05</td>
<td>Manhole Additional Height 48 In. Diam. Type 1</td>
<td>25 Lin. Ft.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW10. 7-05</td>
<td>Manhole Additional Height 72 In. Diam. Type 1</td>
<td>5 Lin. Ft.</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW11. 7-05</td>
<td>Connect New 21 In. Sewer Pipe to Existing Structure</td>
<td>1 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW12. 7-05</td>
<td>Reconnect Existing Sewer Pipe 8-In. Diam. to New Structure</td>
<td>17 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW13. 7-08</td>
<td>Drop Manhole Connection, 8-In. Diam.</td>
<td>10 Each</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW14. 7-08</td>
<td>Temporary Sanitary Sewer Bypass</td>
<td>1 Lump Sum</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>WW15. 7-08</td>
<td>Temporary Sanitary Sewer Bypass Plan</td>
<td>1 Lump Sum</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>ITEM NO.</th>
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<th>ESTIMATED QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL AMOUNT</th>
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</thead>
<tbody>
<tr>
<td>WW16. 7-17</td>
<td>Removal &amp; Replacement of unsuitable material incl. haul</td>
<td>6,800 Cu. Yd.</td>
<td>$_________ $_________</td>
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</tr>
<tr>
<td>WW17. 7-17</td>
<td>Sewer Cleanout</td>
<td>30 Each</td>
<td>$_________ $_________</td>
<td></td>
</tr>
<tr>
<td>WW18. 7-17</td>
<td>PVC Sanitary Sewer Pipe 6-In. Diam.</td>
<td>750 Lin. Ft.</td>
<td>$_________ $_________</td>
<td></td>
</tr>
<tr>
<td>WW19. 7-17</td>
<td>PVC Storm Sewer Pipe 24-In. Diam.</td>
<td>1,384 Lin. Ft.</td>
<td>$_________ $_________</td>
<td></td>
</tr>
<tr>
<td>WW20. 7-17</td>
<td>PVC Storm Sewer Pipe 21-In. Diam.</td>
<td>860 Lin. Ft.</td>
<td>$_________ $_________</td>
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</tr>
<tr>
<td>WW21. 8-22</td>
<td>PVC Sanitary Sewer Pipe 18-In. Diam.</td>
<td>58 Lin. Ft.</td>
<td>$_________ $_________</td>
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<tr>
<td>WW22. 8-22</td>
<td>PVC Sanitary Sewer Pipe 15-In. Diam.</td>
<td>238 Lin. Ft.</td>
<td>$_________ $_________</td>
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<tr>
<td>WW23. 8-22</td>
<td>PVC Sanitary Sewer Pipe 12-In. Diam.</td>
<td>78 Lin. Ft.</td>
<td>$_________ $_________</td>
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<tr>
<td>WW24. 8-22</td>
<td>PVC Sanitary Sewer Pipe 8-In. Diam.</td>
<td>8 Lin. Ft.</td>
<td>$_________ $_________</td>
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### SCHEDULE D: WATER MAIN IMPROVEMENTS (Rule 170)

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<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL AMOUNT</th>
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<tbody>
<tr>
<td>W1. 1-09.7</td>
<td>Mobilization</td>
<td>1</td>
<td>Lump Sum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W2. (1-10)</td>
<td>Project temporary traffic control</td>
<td>1</td>
<td>Lump Sum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W3. 2-02.3(3)</td>
<td>Removal/Disposal of existing asphalt, concrete sidewalk/curbing &amp; concrete pavement. Includes all thickness &amp; combinations</td>
<td>4,644</td>
<td>Sq. Yd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W4. 5-04 &amp; 9-03.8</td>
<td>Temporary HMA class 1/2&quot; PG58H-22, 2-Inch minimum depth, installed &amp; removed</td>
<td>4,644</td>
<td>Sq. Yd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W5. 5-04 &amp; 9-03.8</td>
<td>HMA CI 1/2&quot; PG58H-22 pavement for permanent trench patch</td>
<td>146</td>
<td>Tons</td>
<td></td>
<td></td>
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<tr>
<td>W6. 9-03.9 (3) &amp; 7-09.5 &amp; 9-03.9(3)</td>
<td>Crushed surfacing top course for trench backfill per 2018 WSDOT Standard Specs, shoulder restoration, &amp; as directed by Inspector.</td>
<td>8,451</td>
<td>Ton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W7. 9-02.9(3) &amp; 7-09.5 &amp; 9-03.9(3)</td>
<td>Crushed surfacing top course for street restoration per 2018 WSDOT Standard Specs, shoulder restoration, and as directed by the Inspector</td>
<td>10</td>
<td>Ton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W8. 7-09.3(9)</td>
<td>Gravel for pipe zone bedding of Polyethylene encasement pipe</td>
<td>2,378</td>
<td>Ton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W9. 7-09.3(17)</td>
<td>8 mil. V-Bio enhanced polyethylene encasement installed on various sizes of ductile iron pipe &amp; fittings</td>
<td>8,054</td>
<td>Ln. Ft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W10. 7-04 &amp; 7-09.5</td>
<td>Storm, sanitary, side sewer restoration</td>
<td>43</td>
<td>Each</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<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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<tbody>
<tr>
<td>W11.</td>
<td>Trench excavation &amp; disposal</td>
<td>7,255 Cu. Yd.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W12.</td>
<td>Trench shoring</td>
<td>7,510 Lin. Ft.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W13.</td>
<td>12-Inch ductile iron pipe, push-on joint, ANSI/AWWA, C151, Special class thickness No. 52, to furnish, lay and test</td>
<td>5,179 Lin. Ft.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W14.</td>
<td>8-Inch ductile iron pipe, push-on joint, ANSI/AWAA, C151, special class thickness No. 52 to furnish, lay &amp; test</td>
<td>2,281 Lin. Ft.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W15.</td>
<td>6-Inch ductile iron pipe, push-on joint, ANSI/AWAA, C151, special class thickness No. 52 to furnish, lay &amp; test</td>
<td>406 Lin. Ft.</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W16.</td>
<td>30-Inch steel flange x plain end, 2-ft. long, installed. Does not include procuring actual water product which will be provided by contracting agency.</td>
<td>2 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W17.</td>
<td>30-Inch steel sleeve (Butt Straps) installed. Does not include procuring actual water product which will be provided by contracting agency.</td>
<td>2 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W18.</td>
<td>30-Inch flange isolation kit, installed. Does not include procuring actual water product which will be provided by contracting agency.</td>
<td>2 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>W19.</td>
<td>30-Inch M.J. x flange adapter installed. Does not include procuring actual water product which will be provided by contracting agency.</td>
<td>2 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>W20.</td>
<td>12-Inch ductile iron tee, 3-B, M.J., installed</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W21.</td>
<td>12-Inch x 6-Inch ductile iron tee, 3-B, M.J. installed</td>
<td>7 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W22.</td>
<td>8-Inch x 6-Inch ductile iron tee, 3-B, M.J. installed</td>
<td>5 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W23.</td>
<td>30-Inch x 16-Inch ductile iron reducer, PExPE, installed, including gaskets.</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W24.</td>
<td>16-Inch x 12-Inch ductile iron reducer, LEB, installed, including gaskets.</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W25.</td>
<td>12-Inch x 6-Inch ductile iron reducer, 2-B, M.J., w/anchor, installed</td>
<td>5 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W26.</td>
<td>8-Inch x 6-Inch ductile iron reducer, 2-B, M.J. w/anchor, installed</td>
<td>3 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W27.</td>
<td>12-Inch ductile iron cross, 4-B, M.J., installed</td>
<td>3 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W28.</td>
<td>12-Inch x 8-Inch ductile iron cross, 4-B, M.J., installed</td>
<td>3 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W29.</td>
<td>12-Inch x 6-Inch ductile iron cross, 4-B, M.J., installed</td>
<td>1 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W30.</td>
<td>12-Inch ductile iron Ell, M.J., 45°, installed</td>
<td>28 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
<td>---------</td>
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<td>--------------</td>
</tr>
<tr>
<td>W31. 7-09, 9-30.2(1)</td>
<td>12-Inch ductile iron ell, M.J., 11/1/4°, installed</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W32. 7-09 &amp; 9-30.2(1)</td>
<td>12-Inch ductile iron ell, M.J., 11 ¼°, installed</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W33. 7-09 &amp; 9-30.2(1)</td>
<td>8-Inch ductile iron ell, M.J. 45°, installed</td>
<td>6 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W34. 7-09 &amp; 9-30.2(1)</td>
<td>6-Inch ductile iron ell, M.J. 45°, installed</td>
<td>6 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W35. 7-09 &amp; 9-30.2(1)</td>
<td>12-Inch ductile iron vertical ell, M.J, 11 ¼°, installed</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W36. 7-09 &amp; 9-30.2(1)</td>
<td>6-Inch ductile iron vertical ell, M.J., 22 ½°, installed</td>
<td>2 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W37. 7-09.3(19)A 7-09.5 &amp; 9-30.2(7)</td>
<td>12-Inch transition coupling with 7-Inch center ring, epoxy coating, and stainless-steel bolts, C.I. to D.I. installed</td>
<td>4 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W38. 7-09.3(19)A 7-09.5 &amp; 9-30.2(7)</td>
<td>6-Inch transition coupling with 7-Inch center ring, epoxy coating, and stainless-steel bolts, C.I. to D.I. installed</td>
<td>13 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W39. 9-30.2(1) &amp; 7-09.5</td>
<td>12-Inch ductile iron cap, M.J. tapped 4&quot;, installed and removed</td>
<td>12 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>W41. 9-30.2(1) &amp; 7-09.5</td>
<td>8-Inch ductile iron cap, M.J., tapped 2&quot;, installed and removed</td>
<td>3 Each</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
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<td>-----------------------------------------------------------</td>
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<td>--------------</td>
</tr>
<tr>
<td>W42.</td>
<td>6-Inch ductile iron cap M.J. taped 2&quot;, installed and removed</td>
<td>14</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W43.</td>
<td>12-Inch ductile iron plug, M.J. installed and removed</td>
<td>2</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W44.</td>
<td>8-Inch ductile iron plug, M.J. installed</td>
<td>1</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W45.</td>
<td>6-Inch ductile iron plug, M.J. installed</td>
<td>2</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W46.</td>
<td>Temporary 4-Inch blow-off assembly, installed and removed</td>
<td>31</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W47.</td>
<td>6-Inch Push on Joint Restraining Gasket, installed</td>
<td>3</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W48.</td>
<td>30-Inch mechanical joint restraining glands</td>
<td>2</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W49.</td>
<td>16-Inch mechanical joint restraining glands</td>
<td>2</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>W50.</td>
<td>12-Inch mechanical joint restraining glands</td>
<td>65</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>W51.</td>
<td>8-Inch mechanical joint restraining glands</td>
<td>15</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>7-14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.5 &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-03</td>
<td>9-30.2(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W52.</td>
<td>6-Inch mechanical joint restraining glands</td>
<td>90</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>7-14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.5 &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-03</td>
<td>9-30.2(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W53.</td>
<td>Concrete thrust anchor, installed</td>
<td>51</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>7-09.3(21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W54.</td>
<td>Temporary concrete thrust anchor, installed and removed</td>
<td>31</td>
<td>Each</td>
<td></td>
</tr>
<tr>
<td>7-09.3(21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W55.</td>
<td>Excavate, remove, and dispose of existing air vents, piping, and other appurtenances</td>
<td>1</td>
<td>Lump Sum</td>
<td>$__________</td>
</tr>
<tr>
<td>W56.</td>
<td>Excavate, remove, and dispose of existing valve chamber, piping, conduits, and other appurtenances</td>
<td>1</td>
<td>Lump Sum</td>
<td>$__________</td>
</tr>
<tr>
<td>W57.</td>
<td>Removal, cutting, loading and transport of abandoned 30-inch steel pipe, all thickness</td>
<td>2,400</td>
<td>Each</td>
<td>$__________</td>
</tr>
<tr>
<td>7-09.3(21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W58.</td>
<td>Parking Slip Markings</td>
<td>1</td>
<td>Lump Sum</td>
<td>$__________</td>
</tr>
<tr>
<td>8-22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W59.</td>
<td>Removal and disposal of abandoned CI pipe, all sizes</td>
<td>140</td>
<td>Lin. Ft.</td>
<td>$__________</td>
</tr>
<tr>
<td>7-09.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W60.</td>
<td>Trench compaction test (as direct by the Inspector)</td>
<td>255</td>
<td>Each</td>
<td>$__________</td>
</tr>
<tr>
<td>7-09.3(11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W61.</td>
<td>Test holes (See special provisions)</td>
<td>1</td>
<td>Lump Sum</td>
<td>$__________</td>
</tr>
<tr>
<td>7-09.6(6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-09.5</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ITEM NO.</td>
<td>ITEM DESCRIPTION</td>
<td>ESTIMATED QUANTITY</td>
<td>UNIT PRICE</td>
<td>TOTAL AMOUNT</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------</td>
<td>--------------------</td>
<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>W62.</td>
<td>12-Inch butterfly valve, M.J., ANSI/AWWA, C504, with C.I. valve box</td>
<td>27 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W63.</td>
<td>8-Inch gate valve, M.J., ANSI/AWWA, C509/515, with C.I. valve box</td>
<td>7 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W64.</td>
<td>6-Inch gate valve, M.J., ANSI/AWWA, C509/515, with C.I. valve box</td>
<td>13 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W65.</td>
<td>6-Inch hydrant, M.J. 4.5-ft bury, with 4-inch Tacoma standard threads &amp; 5-inch quick coupling</td>
<td>2 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>W66.</td>
<td>6-Inch hydrant, M.J. 5.5-ft bury, with 4-inch Tacoma standard threads &amp; 5-inch quick coupling</td>
<td>1 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W67.</td>
<td>6-Inch hydrant, M.J., 6.0-ft bury, with 4-inch Tacoma standard threads &amp; 5-inch quick coupling</td>
<td>7 Each</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W68.</td>
<td>Street cleaning with self-propelled pickup and vacuum street sweeper equipment</td>
<td>94 Hour</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W69.</td>
<td>Force Account</td>
<td>1 Estimated Force Account</td>
<td>$_________</td>
<td>$80,000</td>
</tr>
<tr>
<td>SCHEDULE A: ROADWAY IMPROVEMENTS (R) (Rule 171)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Bid (Subtotal Items Nos. R1 – R58)</td>
<td>$ \underline{\text{_______}} \ (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROADWAY IMPROVEMENTS TOTAL</td>
<td>$ \underline{\text{_______}} \ (2)</td>
<td></td>
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<thead>
<tr>
<th>SCHEDULE B: STORM SEWER IMPROVEMENTS (S) (Rule 171)</th>
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<tbody>
<tr>
<td>Base Bid (Subtotal Items Nos. S1- S29)</td>
<td>$ \underline{\text{_______}} \ (3)</td>
</tr>
<tr>
<td>STORM SEWER IMPROVEMENTS TOTAL</td>
<td>$ \underline{\text{_______}} \ (4)</td>
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<tr>
<th>SCHEDULE C: WASTEWATER SEWER IMPROVEMENTS (WW) (Rule 170)</th>
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<tbody>
<tr>
<td>Base Bid (Subtotal Items Nos. WW1 - WW24)</td>
<td>$ \underline{\text{_______}} \ (5)</td>
</tr>
<tr>
<td>10.3% Sales Tax (Items Nos. WW1 – WW24)</td>
<td>$ \underline{\text{_______}} \ (6)</td>
</tr>
<tr>
<td>WASTEWATER SEWER IMPROVEMENTS TOTAL</td>
<td>$ \underline{\text{_______}} \ (7)</td>
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<thead>
<tr>
<th>SCHEDULE D: WATER MAIN IMPROVEMENTS (W) (Rule 170)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Bid (Subtotal Items Nos. W1-W69)</td>
<td>$ \underline{\text{_______}} \ (8)</td>
</tr>
<tr>
<td>10.3% Sales Tax (Items Nos. W1-W69)</td>
<td>$ \underline{\text{_______}} \ (9)</td>
</tr>
<tr>
<td>WATER MAIN IMPROVEMENTS TOTAL</td>
<td>$ \underline{\text{_______}} \ (10)</td>
</tr>
</tbody>
</table>

TOTAL BASE BID \( (1) + (3) + (5) + (8) \) (not including sales tax) Rule 170

$ \underline{\text{_______________}}

Contractor’s Name: 
Specification No. ES21-0004F
Page 17 of 17
SIGNATURE PAGE

CITY OF TACOMA
Environmental Services/Science & Engineering Division

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. ES21-0004F
MADISON DISTRICT GREEN INFRASTRUCTURE PROJECT

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

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

Date

Address

Printed Name and Title

City, State, Zip

(Area Code) Telephone Number / Fax Number

Authorized Signatory E-Mail Address

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.)

E-Mail Address for Communications

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: ___________________________

__________________________

__________________________

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 (June 21st, 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):

- Name of Bidder: ________________________
- Specification No. ________________________

Number: ________________________
Effective Date: ________________________
Expiration Date: ________________________

Current Washington Unified Business Identifier (UBI) Number:

- Number: ________________________

- ☐ Yes  ☐ No
- ☐ Not Applicable

Do you have industrial insurance (workers’ compensation) Coverage nor your employees working in Washington?

- 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.

- ☐ Yes  ☐ No

Do you have a physical office located in the state of Washington?

- 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
List of Subcontractor Categories of Work

Project Name

Subcontractor(s) that are proposed to perform the work of heating, ventilation and air conditioning, and/or plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. **This information must be submitted with the bid proposal or within one hour of the published bid submittal time via email to bids@cityoftacoma.org.**

Subcontractor(s) that are proposed to perform the work of structural steel installation and/or rebar installation must be listed below. **This information must be submitted with the bid proposal or within forty-eight hours of the published bid submittal time via email to bids@cityoftacoma.org.**

Failure to list subcontractors or naming more than one subcontractor to perform the same work will result in your bid being non-responsive. Contractors self-performing must list themselves below. The work to be performed is to be listed below the subcontractor(s) name.

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<th>Subcontractor Name</th>
<th>Work to be Performed</th>
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CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to federally assisted construction contracts and related subcontracts exceeding $10,000 which are not exempt from the Equal Opportunity clause.)

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certified, further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work area, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or area, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed contractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such, certification in this file.

Signature ___________________________ Date ___________________________

Name and title of signer (please type)

[THIS FORM SHALL BE COMPLETED IN FULL AND SUBMITTED WITH THE BID PROPOSAL]
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor’s actual and/or anticipated use of identified certified DBE\(^1\) subcontractors\(^2\) and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

<table>
<thead>
<tr>
<th>Prime Contractor Name</th>
<th>Project Name</th>
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<tr>
<th>Bid/ Proposal No.</th>
<th>Assistance Agreement ID No. (if known)</th>
<th>Point of Contact</th>
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<td>Click here to enter text.</td>
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<th>Telephone No.</th>
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Issuing/Funding Entity **Department of Ecology**

I have identified potential DBE certified subcontractors ☐ YES ☐ NO

If yes, please complete the table below. If no, please explain: Click here to enter text.

<table>
<thead>
<tr>
<th>Subcontractor Name/ Company Name</th>
<th>Company Address/ Phone/ Email</th>
<th>Estimated Dollar Amount</th>
<th>Currently DBE Certified?</th>
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Add more lines if needed

\(^1\) A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

\(^2\) Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

**FORM 6100-4 (DBE Subcontractor Utilization Form)**
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302(c).

<table>
<thead>
<tr>
<th>Prime Contractor Signature</th>
<th>Print Name</th>
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</table>
Disadvantaged Business Enterprise (DBE) Program

DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE\(^1\) subcontractor\(^2\) the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

<table>
<thead>
<tr>
<th>Subcontractor Name</th>
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<th>Issuing/Funding Entity</th>
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<td>Click here to enter text.</td>
<td>Department of Ecology</td>
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<tr>
<th>Contract Item Number</th>
<th>Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment, or Supplies</th>
<th>Amount Received by Prime Contractor</th>
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<td>Click here to enter text.</td>
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\(^1\) A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

\(^2\) Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

Please use the space below to report any concerns regarding the above EPA-funded project:

Click here to enter text.

<table>
<thead>
<tr>
<th>Subcontractor Signature</th>
<th>Print Name</th>
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STATEMENT OF QUALIFICATIONS FOR POROUS HMA INSTALLATION

This form shall be completed in its entirety and submitted with the bid. Failure to submit and meet the requirements as stated in Part III-A Section 1-02.1 of the Special Provisions shall be grounds for rejection of the bid.

The City of Tacoma will be the sole judge in determining if the prospective contractor meets the minimum experience requirements.

The Contractor and the superintendent assigned to this project shall each have a minimum of 2 successfully completed projects that include installation of porous HMA. These projects shall be similar in scope to this proposed project. This requirement can be fulfilled by subcontractor completing the work.

**Porous HMA Contractor:**

Name: ____________________________

Address: ____________________________

Phone: ____________________________ Contact Person: ____________________________

List two projects of a similar nature which Contractor has completed within the last 5 years. Include contract amount and contact information for references:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Amount</th>
<th>Owner/Agency</th>
<th>Contact</th>
<th>Phone</th>
<th>Year Completed</th>
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**Superintendent:**

Name: ____________________________

List two projects of a similar nature which Contractor has completed within the last 5 years. Include contract amount and contact information for references:

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## Subcontractors Bidder List

All subcontractors who submitted a quote regardless of if they were chosen for the bid must be listed below.

<table>
<thead>
<tr>
<th>Subcontractor Name with Point of Contact</th>
<th>Mailing Address, Telephone Number, Email Address</th>
<th>Quoted Work to be Performed, Date Quoted</th>
<th>DBE/MBE/WBE Status</th>
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CONTRACT

This Contract is made and entered into effective as of [Month], [Day], [Year] ("Effective Date") by and between the City of Tacoma, a Municipal Corporation of the State of Washington ("City"), and [supplier name as it appears in Ariba, including dbas or trade names] ("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. [Spec Number] [ Spec Title] together with all authorized addenda.
2. Contractor's submittal [or specifically described portions thereof] dated [Enter Submittal Date] submitted in response to Specification No. [Spec Number] [Spec Title].
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.

II. If federal funds will be used to fund, pay or reimburse all or a portion of the services provided under the Contract, the terms and conditions set forth at this Appendix A are incorporated into and made part of this Contract and CONTRACTOR will comply with all applicable provisions of Appendix A and with all applicable federal laws, regulations, executive orders, policies, procedures, and directives in the performance of this Contract.

If CONTRACTOR's receipt of federal funds under this Contract is as a sub-recipient, a fully completed Appendix B, “Sub-recipient Information and Requirements” is incorporated into and made part of this Contract.

III. 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, inclusive of Appendices A and B.
2. List remaining Contract Documents in applicable controlling order.

IV. The Contract terminates on xxxxx, and may be renewed for xxxxxxxx.

V. The total price to be paid by City for Contractor's full and complete performance hereunder, including during any authorized renewal terms, may not exceed: $[Dollar Amount], plus any applicable taxes.

VI. 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.

VII. The City’s preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City’s ePayables or credit card methods of payment. The City of Tacoma will not accept price changes.
or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole
discretion, will determine the method of payment for this Contract.

VIII. Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with the insurance requirements contained in the Contract Documents shall not be construed as a waiver of Contractor’s obligation to maintain such insurance.

IX. 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.

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 this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:  
Signature: 
Name:  
Title:  

CONTRACTOR:  
Signature: 
Name:  
Title:  

(City of Tacoma use only - blank lines are intentional)

Director of Finance:  
Deputy/City Attorney (approved as to form):  
Approved By:  
Approved By:  
Approved By:  
Approved By:  
Approved By:  
Approved By:  
Approved By:  
Approved By:  

SAMPLE
1. **Termination for Breach**

CITY may terminate this Contract in the event of any material breach of any of the terms and conditions of this Contract if CONTRACTOR’s breach continues in effect after written notice of breach and 30 days to cure such breach and fails to cure such breach.

2. **Prevailing Wages**

1. If federal, state, local, or any applicable law requires CONTRACTOR to pay prevailing wages in connection with this Contract, and CONTRACTOR is so notified by the CITY, then CONTRACTOR shall pay applicable prevailing wages and otherwise comply with the Washington State Prevailing Wage Act (RCW 39.12) in the performance of this Contract.

2. If applicable, a Schedule of Prevailing Wage Rates and/or the current prevailing wage determination made by the Secretary of Labor for the locality or localities where the Contract will be performed is made of part of the Contract by this reference. If prevailing wages apply to the Contract, CONTRACTOR and its subcontractors shall:

   i. Be bound by and perform all transactions regarding the Contract relating to prevailing wages and the usual fringe benefits in compliance with the provisions of Chapter 39.12 RCW, as amended, the Washington State Prevailing Wage Act and/or the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable, including the federal requirement to pay wages not less than once a week.

   ii. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule and/or specified in a wage determination made by the Secretary of Labor (unless specifically preempted by federal law, the higher of the Washington state prevailing wage or federal Davis-Bacon rate of wage must be paid).

   iii. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington and/or the federal Department of Labor, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages and/or other or additional documentation required by applicable federal law, must be submitted by CONTRACTOR and its subcontractors to the CITY, in the manner requested by the CITY, prior to any payment by the CITY hereunder, and an Affidavit of Wages Paid and/or other or additional documentation required by federal law must be received or verified by the CITY prior to final Contract payment.

3. **COPELAND ANTI-KICKBACK ACT**

For Contracts subject to Davis Bacon Act the following clauses will be incorporated into the Contract:

A. CONTRACTOR shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this Contract.
B. CONTRACTOR or subcontractor shall insert in any subcontracts the clause above and such other clauses federal agencies may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these Contract clauses.

C. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

4. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. If the CONTRACTOR does over $10,000 in business a year that is funded, paid or reimbursed with federal funds, CONTRACTOR will take specific and affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

A. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

B. CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

C. CONTRACTOR will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee’s essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

D. CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

E. CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
F. In the event of CONTRACTOR’s noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further federally funded contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

G. CONTRACTOR will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (G) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

5. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

A. Overtime requirements. Neither CONTRACTOR or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

B. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (3)(A) of this section the CONTRACTOR and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such CONTRACTOR and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (3)(A) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (3)(A) of this section.
C. Withholding for unpaid wages and liquidated damages. The CITY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such CONTRACTOR or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (3)(B) of this section.

D. Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (3)(A) through (D) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (3)(A) through (D) of this section.

6. CLEAN AIR ACT
   A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

   B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

   CONTRACTOR agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal funds.

7. FEDERAL WATER POLLUTION CONTROL ACT
   A. CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

   B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the appropriate federal agency.

   C. CONTRACTOR agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal funding.

8. DEBARTMENT AND SUSPENSION
   A. This Contract is a Covered Transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the CONTRACTOR is required to verify that none of the contractor’s principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
B. CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier Covered Transaction it enters into.

C. This certification is a material representation of fact relied upon by the CITY. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to CITY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

D. CONTRACTOR agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C throughout the period of this Contract and to include a provision requiring such compliance in its lower tier covered transactions.

9. BYRD ANTI-LOBBYING AMENDMENT

A. Contractors who apply or bid for an award of $100,000 or more shall file the required certification with CITY. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the CITY.

B. If applicable, CONTRACTOR must sign and submit to the CITY the certification required by Appendix A to 44 CFR Part 18 contained at Appendix A-1 to this Contract.

10. PROCUREMENT OF RECOVERED MATERIALS

A. In the performance of this Contract, CONTRACTOR shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

   i. Competitively within a timeframe providing for compliance with the contract performance schedule;

   ii. Meeting contract performance requirements; or

   iii. At a reasonable price.

B. Information about this requirement, along with the list of EPA-designated items, is available at EPA’s Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.

C. CONTRACTOR also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.
APPENDIX A-1

APPENDIX A to 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING
Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, ___________, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap.38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

___________________________________
Signature of Contractor’s Authorized Official

___________________________________
Name and Title of Contractor’s Authorized Official

______________ Date
APPENDIX B—Sub-recipient information and requirements

Pursuant to 2 CFR 200.332(a)(1) Federal Award Identification

<table>
<thead>
<tr>
<th>(i) Agency Name (must match the name associated with its unique entity identifier)</th>
<th>(ii) Unique Entity Identifier (i.e., DUNS)</th>
<th>City of Tacoma Number for This Agreement</th>
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<tr>
<th>(iii) Federal Award Identification Number (FAIN)</th>
<th>(iv) Federal Award Date</th>
<th>(v) Federal Period of Performance Start and End Date</th>
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<tr>
<th>(vi) Federal Budget Period Start and End Date</th>
<th>(vii) Amount of Federal Funds Obligated to the agency by this action:</th>
<th>(viii) Total Amount of Federal Funds Obligated to the agency</th>
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<td>$</td>
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<tr>
<th>(ix) Total Amount of the Federal Award Committed to the agency</th>
<th>(x) Federal Award Project Description:</th>
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<tbody>
<tr>
<td>$</td>
<td>CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS– City of Tacoma</td>
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</tbody>
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<tr>
<th>(xi) Federal Awarding Agency: Pass-Through Entity:</th>
<th>(xii) Assistance Listing Number and Name (the pass-through entity must identify the dollar amount made available under each Federal award and the Assistance Listing number at time of disbursement)</th>
<th>(xiii) Identification of Whether the Award is R&amp;D</th>
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<tr>
<td>Department of the Treasury</td>
<td>City of Tacoma</td>
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<th>(xv) Indirect Cost Rate for the Federal Award</th>
<th>Award Payment Method (lump sum payment or reimbursement)</th>
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<tbody>
<tr>
<td></td>
<td>REIMBURSEMENT</td>
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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

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<tbody>
<tr>
<td>Specification Title:</td>
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<tr>
<td>Contract No.</td>
</tr>
</tbody>
</table>

(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 waives 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: ______________________
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

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</table>

(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: ____________________

Form No. SPEC-100A 04/09/2020
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 ________________________
NOTICE TO LABOR UNIONS OR OTHER ORGANIZATION OF WORKERS: NON-DISCRIMINATION IN EMPLOYMENT

TO: ______________________________________________________
(name of union or organization of worker)

The undersigned currently holds contract(s) with _________________________________
(name of applicant)
__________________________________________ involving funds or credit of the U.S. Government or (a)
subcontract(s) with a prime contractor holding such contract(s).

You are advised that under the provisions of the above contract(s) or subcontract(s) and in
accordance with Section 202 of Executive Order 11246 dated September 24, 1965, the
undersigned is obliged not to discriminate against any employee or applicant for employment
because of race, color, creed, or national origin. This obligation not to discriminate in
employment includes, but is not limited to, the following:

EMPLOYMENT, UPGRADING, TRANSFER OR DEMOTION

RECRUITMENT AND ADVERTISING

RATES OF PAY OR OTHER FORMS OF COMPENSATION

SELECTION FOR TRAINING INCLUDING APPRENTICESHIP, LAYOFF OR TERMINATION

This notice is furnished you pursuant to the provisions of the above contract(s) or subcontract(s)
and Executive Order 11246.

Copies of this notice will be posted by the undersigned in conspicuous places available to
employees or applicants for employment.

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(contractor or subcontractor(s))

(Date)
PART II-A

ENVIRONMENTAL SERVICES
SPECIAL PROVISIONS
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INTRODUCTION
(April 1, 2018 Tacoma GSP)

The following special provisions shall be used in conjunction with the "2020 Standard Specifications for Road, Bridge and Municipal Construction" and "Standard Plans for Road, Bridge, and Municipal Construction" as prepared by the Washington State Department of Transportation (WSDOT). State Standard Specifications are available through WSDOT, by calling (360) 705-7430, emailing engrpubs@wsdot.wa.gov, or may be downloaded, free of charge, from this location on the WSDOT home page:
http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm

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 GSPs are labeled under the headers of each GSP, with the date of the GSP and its source, as follows:
(May 18, 2007 APWA GSP)
(August 7, 2006 WSDOT GSP)
(April 2, 2007 Tacoma GSP)

The project specific Special Provisions are labeled under the headers of each Special Provision as follows:
(******)

A pre-bid conference will be held virtually at 11:00 AM on June 13th, 2022 to answer questions regarding the project and Disadvantaged Business Enterprise (DBE) requirements included in the contract. Prospective bidders are urged to attend.

DESCRIPTION OF WORK
(******)

The Madison District Green Infrastructure project is replacing approximately 18 blocks of residential roadways between South 43rd Street and South 47th Street and between South Tacoma Way and Pine Street with approximately two standard asphalt blocks and approximately 15 pervious asphalt blocks with ballasted sidewalk. Work also includes replacing 3400LF of Wastewater, replacing or extending 1300LF of Surface Water pipe, and replacing 6400LF and removing 2000LF of Water pipe. Driveways, curb ramps, street trees, and channelization are included as well.

This project is funded in part by the Department of Ecology.
This Contract is all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

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 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.

Add the following new section:

1-02.1(1) Supplemental Qualifications Criteria
(July 31, 2017 APWA GSP)

In addition, the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria, in accordance with RCW 39.04.350(3), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in Section 1-02.14 of these Special Provisions.

Qualifications of the Porous HMA Installation Contractor:
The Contractor constructing the Porous HMA and the superintendent assigned to this project shall have a minimum of two successfully completed projects that include either road-building or parking lot construction of Porous HMA. These projects shall be similar in scope to this Project.

The Contractor shall submit the “Statement of Qualifications” form with this Bid for the above-specified areas of Work.

The Forms shall be completed in their entirety and submitted with the Bids for all workers listed, including any relief personnel if needed for second shifts during the paving process. (Use additional copies of this form for a second shift of personnel, if necessary). Failure to submit the completed forms and meet the requirements as stated in Section 1-02.1 of the Special Provisions shall be grounds for rejection of bid.

As evidence that the Bidder meets the project specific responsibility criteria above, the apparent two lowest Bidders must submit documentation demonstrating compliance to the Contracting Agency, within 48 hours of the official Bid tabulation by the City.

At a minimum, documentation will include but is not limited to Construction drawings, Contract amounts, time frame of construction, name of owner work was performed for, and contact information (name, title, phone number, e-mail address) for the owner or owner’s representative whom is familiar with the work.

If the Contracting Agency determines the apparent low Bidder does not meet the project specific Bidder responsibility criteria as defined 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 written 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.

1-02.2 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” x 17”)</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>
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<tr>
<td>Large plans (e.g., 22” x 34”)</td>
<td>2</td>
<td>Furnished only upon request.</td>
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</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 as
an appendix to the Special Provisions, 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
(Dec. 10, 2020 APWA GSP, Option A)

Supplement this section with the following:

The Bidder shall submit with the Bid a completed Disadvantaged Business Enterprise (DBE) Utilization Certification (Form 6100-4), when required by the Special Provisions. For each and every DBE firm listed on the Bidder's completed Disadvantaged Business Enterprise Utilization Certification, the Bidder shall submit written confirmation from that DBE firm that the DBE is in agreement with the DBE participation commitment that the Bidder has made in the Bidder's completed Disadvantaged Business Enterprise Utilization Certification.

DOE (Form 6100-3) DBE Subcontractor Performance Form is used for this purpose and must be submitted with the Proposal.

The Bidder shall submit with the Bid a completed Certification of Nonsegregated Facilities.

Add the following new section:

1-02.7 Bid Deposit
(April 1, 2012 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 a form acceptable to the Contracting Agency 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 a Bid Bond is furnished, the form furnished by the Contracting Agency must be
followed. No variations from the language thereof will be accepted.

1-02.9 Delivery of Proposal
(October 1, 2020 APWA GSP Option B)

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.

To be considered responsive on a DOE-funded project, the Bidder may be required
to submit the following items, as required by Section 1-02.6:

• Certification of Nonsegregated Facilities
• DBE Subcontractor Utilization Form (Form 6100-4)
• DBE Subcontractor Performance Form (Form 6100-3)

These documents, if applicable, shall be received either with the Bid Proposal or as a
Supplement to the Bid. The documents shall be received no later than 48 hours
(not including Saturdays, Sundays and Holidays) after the time for delivery of the Bid
Proposal.

If submitted after the Bid Proposal is due, the document(s) shall be submitted as
follows:

1. In a sealed envelope labeled the same as for the Proposal, with
   “Supplemental Information” added, or
2. By e-mail in PDF form to the following e-mail address: bids@cityoftacoma.org
   Submitted files have a 35mb size limit. Compress files as a .zip file or submit
   as multiple files (Part 1, Part 2, etc.) if needed.

All other information required to be submitted with the Bid Proposal must be
submitted with the Bid Proposal itself, at the time stated in the Call for Bids.

Proposals that are received as required will be publicly opened and read as specified
in Section 1-02.12. The Contracting Agency will not open or consider any Bid
Proposal that is received after the time specified in the Call for Bids for receipt of Bid
Proposals, or received in a location other than that specified in the Call for Bids. The
Contracting Agency will not open or consider any “Supplemental Information” (DBE
confirmations or GFE documentation) that is received after the time specified above, or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the normal work processes of the Contracting Agency resume.

1-02.10 Withdrawing, Revising, or Supplementing Proposal
(March 1, 2021 Tacoma GSP)
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:

1. The Bidder submits a written request signed by an authorized person and emails it to bids@cityoftacoma.org, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. 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

The first paragraph of this section shall be deleted and replaced with the following:

NOTICE: City of Tacoma Public Bid Openings are cancelled until further notice. Preliminary and final bid results are posted at www.TacomaPurchasing.org

1-02.13 Irregular Proposals
(*****)
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 the DBE Subcontractor Performance Form (Form 6100-3) 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; The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
j. 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.

1-02.14 Disqualification of Bidders
(May 17, 2018 APWA GSP, Option C)
Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria 1-02.1(1) in this Section:

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2. Evidence that the Bidder meets Supplemental Criteria 3-7 shall be provided by the Bidder as stated later in this Section.

1. Delinquent State Taxes
A. **Criterion**: The Bidder shall not owe delinquent taxes to the Washington State Department of Revenue without a payment plan approved by the Department of Revenue.

B. **Documentation**: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder does not owe delinquent taxes to the Washington State Department of Revenue, or if delinquent taxes are owed to the Washington State Department of Revenue, the Bidder must submit a written payment plan approved by the Department of Revenue, to the Contracting Agency by the deadline listed below.

2. **Federal Debarment**

A. **Criterion**: The Bidder shall not currently be debarred or suspended by the Federal government.

B. **Documentation**: The Bidder shall not be listed as having an “active exclusion” on the U.S. government’s “System for Award Management” database (www.sam.gov).

3. **Subcontractor Responsibility**

A. **Criterion**: The Bidder’s standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder’s subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also “responsible” subcontractors as defined by RCW 39.06.020.

B. **Documentation**: The Bidder, if and when required as detailed below, shall submit a copy of its standard subcontract form for review by the Contracting Agency, and a written description of its procedure for validating the responsibility of subcontractors with which it contracts.

4. **Claims Against Retainage and Bonds**

A. **Criterion**: The Bidder shall not have a record of excessive claims filed against the retainage or payment bonds for public works projects in the three years prior to the bid submittal date, that demonstrate a lack of effective management by the Bidder of making timely and appropriate payments to its subcontractors, suppliers, and workers, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. **Documentation**: The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to the bid submittal date that have had claims against retainage and bonds and include for each project the following information:
• Name of project
• The owner and contact information for the owner;
• A list of claims filed against the retainage and/or payment bond for any of the projects listed;
• A written explanation of the circumstances surrounding each claim and the ultimate resolution of the claim.

5. **Public Bidding Crime**

A. **Criterion:** The Bidder and/or its owners shall not have been convicted of a crime involving bidding on a public works contract in the five years prior to the bid submittal date.

B. **Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder and/or its owners have not been convicted of a crime involving bidding on a public works contract.

6. **Termination for Cause / Termination for Default**

A. **Criterion:** The Bidder shall not have had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. **Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date; or if Bidder was terminated, describe the circumstances.

7. **Lawsuits**

A. **Criterion:** The Bidder shall not have lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. **Documentation:** The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, or shall submit a list of all lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date, along with a written explanation of the circumstances surrounding each such lawsuit. The Contracting Agency shall evaluate these explanations to determine
whether the lawsuits demonstrate a pattern of failing to meet terms of construction related contracts.

As evidence that the Bidder meets the Supplemental Responsibility Criteria stated above, the apparent low Bidder must submit to the Contracting Agency by 12:00 P.M. (noon) of the second business day following the bid submittal deadline, a written statement verifying that the Bidder meets the Supplemental Criteria together with supporting documentation (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with the Supplemental Responsibility Criteria. The Contracting Agency reserves the right to request further documentation as needed from the low bidder and documentation from other Bidders as well to assess Bidder responsibility and compliance with all bidder responsibility criteria. The Contracting Agency also reserves the right to obtain information from third-parties and independent sources of information concerning a Bidder’s compliance with the mandatory and supplemental criteria, and to use that information in their evaluation. The Contracting Agency may consider mitigating factors in determining whether the Bidder complies with the requirements of the Supplemental Criteria.

The basis for evaluation of Bidder compliance with these mandatory and Supplemental Criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others 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 two (2) business days of the Contracting Agency’s determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information 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 Contracting Agency’s final determination.

Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid: Bidders with concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria may make or submit requests to the Contracting Agency to modify the criteria. Such requests shall be in writing, describe the nature of the concerns, and propose specific modifications to the criteria. Bidders shall submit such requests to the Contracting Agency no later than five (5) business days prior to the bid submittal deadline and address the request to the Project Engineer or such other person designated by the Contracting Agency in the Bid Documents.

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

Third-Party Beneficiary: All parties agree that the State of Washington shall be, and is hereby, named as an express third-party beneficiary of this contract, with full rights as such.

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.

1-03.3 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.
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).

END OF SECTION
1-04  SCOPE OF THE WORK

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

(*******)
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.

1-04.6 Variation in Estimated Quantities

(May 25, 2006 APWA GSP)

This section is supplemented with the following:

The quantities Roadway Excavation, Gravel Borrow, Removal and Replacement of Unsuitable Material Incl. Haul, Pothole Existing Utility, Temporary HMA, and Street Cleaning have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity. These bid items shall not be subject to the provisions of 1-04.6 of the Standard Specifications.

END OF SECTION
1-05 CONTROL OF WORK

1-05.3 Working Drawings
(January 6, 2015 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 requires submittals, until reviewed by the Contracting Agency. Late submissions by the Contractor shall not be cause for time extension.

Submittals shall be made per Bid Item, rather than per material. The Contractor shall be responsible for ensuring that each submittal includes cut sheets and/or other information for all pertinent materials necessary to complete the work for each Bid Item. It is understood that producing submittals for each Bid Item may require multiple submittals of common materials that are associated with more than one Bid Item. The Contractor shall also be responsible for producing submittals that may only be associated with a Specification Section, not a particular Bid Item.

The Contractor shall submit electronic copies of each submittal required by the Contract Documents through the Contracting Agency’s web based project management software, e-BUILDER® (see Section 1-05.19), 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)

Physical samples shall be delivered with a hardcopy transmittal of the e-BUILDER® submittal.

The Engineer will return reviewed submittals through the e-BUILDER® web based project management software for the Contractor’s use.

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 delay claim shall be entertained for Contractor’s failure to comply.

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 
ote 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 (via e-Builder®). On each 
page, indicate the page number, and total number of pages in each submittal.

Each submittal shall indicate the following:
1. The intended use of the item in the work;
2. Clearly indicate only applicable items on any catalog cut sheets;
3. The current revision, issue number, and data shall be indicated on all 
drawings and other descriptive data.
4. Description of Submittal.
5. Related Specification Section and/or plan sheet.
6. Each material submittal shall clearly indicate the name and address of all 
suppliers, processors, distributors, and/or producers from which the 
Contractor directly purchased each material.

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” no further correspondence is required. When the submittal is marked “REVIEWED WITH COMMENTS” the Contractor shall comply with any comments on the return submittal.

1-05.3(4) Resubmittals

When a submittal is marked “REVISE AND RESUBMIT” or “REJECTED,” the Contractor shall make the corrections as noted and instructed by the Engineer and resubmit via e-Builder®. The Contractor shall not install material or equipment that has received a review status of “REVISE AND RESUBMIT” or REJECTED.

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. e-Builder® will assign the resubmittal number of the original submittal followed by a revision number (1, 2, etc.) to indicate the sequence of the resubmittal.

Each submittal shall have a unique number assigned to it (via e-Builder®).

The Contractor shall revise returned submittals as required and resubmit until final review is obtained. Any associated progress delay due to the Contractor’s need to revise and resubmit is the Contractor’s sole responsibility.

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 general summary of submittal requirements. This summary is not inclusive of all submittal requirements and does not relieve the Contractor of their responsibility to provide submittals as noted in subsequent sections of the specifications. The Contractor shall review each bid item and individual section in the applicable provisions or specifications, as noted below, for specific requirements.
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1-05.3(6) Project Red Line Drawings

The Contractor shall submit Project Red Line Drawings in accordance with the following.

Red line drawings refer to those documents maintained and annotated by the Contractor during construction and is defined as, a neatly and legibly marked set of Contract drawings showing any changes made to the original details of work.

The Contractor shall maintain drawings in good condition; protect from deterioration and keep in a clean, dry, and secure location. The Project Red Line Drawings shall not be used for construction purposes.

The Contractor shall provide to the City, access to Project Red Line Drawings at all times during normal working hours.

Red line drawings shall be updated on a continuous basis. The Contractor shall bring the up-to-date drawings to a monthly “red line review” meeting where the Engineer will verify the maintenance of the Project Red Line Drawings as part of the condition precedent to approving the monthly progress payment disbursement process. Monthly progress payments to the Contractor may not be processed, if red line information for the involved work to date has not been accurately recorded on the Project Red Line Drawings.

At the completion of the construction work, prior to pre-final payment, all Project Red Line Drawings shall be submitted to the Engineer.

A. Project Red Line Drawings:

Do not permanently conceal any work until required information has been recorded. Mark drawings to show the actual installation where the installation varies from the work as originally shown on the Contract drawings or indicated in the Contract specifications. Give particular attention to information on concealed elements that would be difficult to measure and record at a later date.

1. Changes and information shall be clearly drawn, described and shown technically correct.
2. Mark drawings with red erasable pencil.
3. Record data as soon as possible after obtaining it.
5. Keep accurate measurements of horizontal and vertical locations of underground services and utilities.
6. Mark any changes made where installation varies from that shown originally, such as, in materials, equipments, locations, alignments, elevations, and any other dimensions of the work.
7. For any work not demolished, abated, or salvaged, cross out and appropriately annotate “Not Complete”.
8. Indicate revisions to drawings with a “cloud” drawn around the revision and note date the revision(s) was made.
9. Note Request For Change (RFC), Request For Information (RFI), and similar identification, where applicable.
B. Format:

Identify and date each print; include the designation “PROJECT RED LINE DRAWINGS” in a prominent location.

1. Prints: Organize Red Line Drawings into manageable sets. Include identification on cover sheets.
2. Identify cover sheets as follows:
   • Specification No.
   • Project Name
   • Date
   • “PROJECT RED LINE DRAWINGS”
   • Name of Engineer
   • Name of Contractor

The lump sum Contract price for “Project Red Line Drawings” shall be full pay for all costs associated with, including but not limited to, documenting, revising, updating, maintaining, and submitting red line drawings at the completion of construction work.

1-05.3(8) Clarifications

Clarifications of the Contract intent shall be submitted via a Request for Information (RFI) using e-BUILDER® as described in Section 1-05.19 of the Special Provisions. The Contractor shall provide a clear and concise clarification question, specific project document reference such as plan detail number or specification number, proposed solution to the clarification question, and provide any supporting documentation necessary to understand the clarification question.

Request for Information responses provided by the Contracting Agency shall be incorporated into the Project Red-Line Drawings, if resulting in a change to the Contract Plans.

Request for Information responses provided by the Contracting Agency shall not be construed to be a change to the Contract Documents.

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 remedying 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.

1-05.12(1) One-Year Guarantee Period
(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.
Add the following new section:

1-05.19 Project Management Communications
(March 16, 2018 Tacoma GSP)

1-05.19(1) Summary

The Contractor shall use the Internet web based project management communications tool, e-BUILDER® ASP software, and protocols included in that software during this project. The use of project management communications as herein described does not replace or change any contractual responsibilities of the participants.

User registration, electronic and computer equipment, and internet connections are the responsibility of each project participant.

Nothing in this specification or the subsequent communications supersedes the parties’ obligations and rights for copyright or document ownership as established by the Contract Documents. The use of CAD files, processes, or design information distributed in this system is intended only for the project specified herein.

1-05.19(2) Training & Support

A group training session scheduled by the Contracting Agency will be provided for the Contractor at a City of Tacoma training facility. The training session duration is generally 4 hours. The Contractor’s e-BUILDER® users are required to attend the scheduled training sessions that they are assigned to. Requests for specific scheduled classes will be on a first come first served basis by availability.

1-05.19(3) Authorized Users

Access to the web site will be by individuals who are licensed users.

1. The City will provide the Contractor with up to four licensed user accounts for the duration of the project. The sharing of user accounts is prohibited.
2. Additional licensed user accounts may be purchased from e-BUILDER®.
3. Authorized users will be contacted via e-mail with a temporary user password. The user shall update the required information at their first log-in and be responsible for proper password protection.
4. Only entities with a direct Contract with the Contracting Agency will be allowed to be an authorized user.

1-05.19(4) Communications

The use of fax, email and courier communication for this project is discouraged in favor of using e-BUILDER® to send messages. Communication functions are as follows:

1. Document Integrity and Revisions: Documents, comments, drawings and other data posted to the system remain a permanent component of the project. The originator, time and date are recorded for each document submitted to the system. Submitting a new document or record with a unique ID, originator, and time stamp is the method used to make modifications or corrections.
2. Document Security: The system provides a method for communication of documents. Documents allow security group assignment to respect the contractual parties’ communication with the exception that the Contracting Agency Administrative Users have access to everything. **DO NOT POST PRIVATE OR CONFIDENTIAL ITEMS IN THE DATABASE.**

3. Notifications and Distribution: Document distribution to project members may be accomplished both within the e-BUILDER® system and via email depending on user settings. Project document distribution to parties outside of the project communication system may be accomplished by secure email of outgoing documents and attachments, readable by a standard email client.

4. Except for paper documents which require original signatures and large format documents (greater than 11 x 17 inches), all other documents shall be submitted by transmission in electronic form to the e-BUILDER® web site by licensed users.
   a. Large format documents may be transmitted by hardcopy and electronically via e-BUILDER® as otherwise agreed, or as otherwise noted in the specifications.
   b. Electronic processes and document types that shall be managed via e-BUILDER® include, but are not limited to:
      i. Request for Information (RFI)
      ii. Change Order (CO)
      iii. Submittals
      iv. Transmittals, including record of documents and materials delivered in hard copy
      v. Meeting Minutes
      vi. Application for Payments
      vii. Review Comments
      viii. Inspector’s Daily Field Reports (IDR)
      ix. Construction Photographs
      x. Drawings
      xi. Supplemental Sketches
      xii. Schedules
      xiii. Specifications
      xiv. Inspection Reports
      xv. Survey Requests
      xvi. TV Inspection Requests

1-05.19(5) Record Keeping

1. The Contracting Agency, their representatives, and the Contractor shall respond to electronic documents received from e-BUILDER® and consider them as if received in paper document form.

2. The Contracting Agency, their representatives, and the Contractor reserve the right to reply or respond through e-BUILDER® to documents actually received in paper document form.

3. The following are examples of paper documents which may require an original signature:
   a. Contract
   b. Change Orders
   c. Application & Certificates for Payment
   d. Force Account and Protested Force Account forms
1-05.19(6) Minimum Equipment Requirements

In addition to other requirements specified in this Section, the Contractor shall be responsible for providing suitable computers, necessary software and internet access to utilize e-Builder®. Furthermore, Microsoft Word, Microsoft Excel, and Adobe Acrobat Reader (compatible with current versions) are required. Contact e-Builder® for any additional equipment requirements and support at the following website: http://www.e-builder.net/services/support.

No separate payment will be made for the use of e-Builder®, as this will be considered incidental to the Contract. All costs incurred to carry out the requirements of utilizing and maintaining e-Builder®, including but not limited to, labor, training, equipment, and required software are the sole responsibility of the Contractor.

END OF SECTION
1-06 CONTROL OF MATERIAL
Section 1-06 is supplemented with the following:

Buy American
See Washington State Department of Ecology Water Pollution Control Revolving Fund Speciﬁcations Insert to see additional requirements. Speciﬁcally “Use of American Iron and Steel” This only applies to Schedule A and B.

1-06.1 Approval of Materials Prior to Use
(September 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:

QPLs are not accepted by the City.

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

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.

1-07.9 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.

1-07.11 Requirements for Nondiscrimination

This section is supplemented with the following:

See Washington State Department of Ecology Water Pollution Control Revolving Fund Specifications Insert to see additional requirements.

1-07.15 Temporary Water Pollution/Erosion Control
(March 23, 2010 Tacoma GSP)

This section is supplemented with the following:

Stormwater or dewatering water that has come in contact with concrete rubble, concrete pours, or cement treated soils shall be maintained to pH 8.5 or less before it is allowed to enter waters of the State or the City stormwater system. If pH exceeds 8.5, the Contractor shall immediately discontinue work and initiate treatment according to the plan to lower the pH. Work may resume, with treatment, once the pH of the stormwater is 8.5 or less or it can be demonstrated that the runoff will not reach surface waters or the City stormwater system.

High pH process water shall not be discharged to waters of the State or the City stormwater system. Unless specific measures are identified in the Special Provisions, high pH water may be infiltrated, dispersed in vegetation or compost, or discharged to a sanitary sewer system. Disposal shall be in accordance with the City of Tacoma Surface Water Management Manual or to City wastewater system with proper approval. Water being infiltrated or dispersed shall have no chance of discharging directly to waters of the State or the City stormwater system, including wetlands or conveyances that indirectly lead to waters of the State. High pH process water shall be treated to within a range of 6.5 to 8.5 pH units prior to infiltration to ensure the discharge does not cause a violation of groundwater quality standards. If water is discharged to the sanitary sewer, the Contractor shall provide a copy of permits and requirements for placing the material into a sanitary sewer system prior to beginning the work. Process water may be collected and disposed of by the Contractor off the project site. The Contractor shall provide a copy of the permit for an approved waste site for the disposal of the process water prior to the start of work that generates the process water. A Special Approved Discharge permit shall be required for all discharges to the sanitary sewer system.

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.

When moving from one street to another, the Contractor must provide a mailing or door hanger, a minimum of two (2) days prior to starting work in that area. For instance, if work is occurring on S. Puget Sound but the Contractor plans to start on S.45th or Junett or Cedar, then the Contractor must notify the property owners and tenants on those streets.

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, P: (253) 502-8229
- City of Tacoma Water Division, Contact: Kimberly Baard, P: (253) 396-3317
- City of Tacoma Traffic Division, Signal/Streetlight Shop, P: (253) 591-5287
- CLICK! Network, Contact: Ken Mathes, P: (253) 502-8851
- Puget Sound Energy, Contact: Mike Klapperich, Electric, P: (253) 313-3790 OR Amber Uhls, Gas, P: (253) 476-6137
- CenturyLink, Contact: Eric Charity, P: (206) 733-8871
- Comcast, Contact: Todd Gallant, P: (253) 878-4955
- AT&T Broadband Information Services, Contact: Dan McGeough, P: (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, P: (206) 305-5366
- MCI Metro Utility, Contact: Brad Landis, P: (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 Thursdays.

1-07.18 Public Liability and Property Damage Insurance

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

Refer to Appendix F for insurance requirements.

1-07.23 Public Convenience and Safety

1-07.23(1) Construction under Traffic

(*****)

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.

This section is supplemented with the following:

Due to the high number of water services that Tacoma Water will be required to transfer, it is anticipated that the Contractor will have to begin with water main work at either S. Puget Sound Ave, or S Cedar Street, or both. This work may also run concurrently with
additional crews that are working on other utilities so long as it does not impeded the
water mains being installed with priority so as to allow both Tacoma Water and the
Contractor ample time to complete the project within the specified time for completion.
This work will require substantial coordination with Tacoma Water. See Section 1-11 for
Tacoma Water coordination requirements.

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

The following roadways are classified as local roadways and may be closed to through
traffic with submitted and approved traffic control plan (indicating scope of work, duration
of closure, and any adjacent concurrent work, closures, and any other temporary traffic
control provisions) and proper advanced notice per the City of Tacoma Traffic Control
Handbook. Concurrent local road closures may not be permitted adjacent to each other
in the same area if it causes undue circulation and/or access issues. Access (vehicular
and non-motorized) to/from local residences and/or businesses must still be maintained
even when closed to through traffic:

- S Junett Street between S 43rd Street and S 47th Street
- S Cedar Street between S 43rd Street and S 45th Street
- S Puget Sound Avenue between S 43rd Street and S 47th Street
- S 45th Street between Union Avenue and Pine Street
- S Alder Street on the north side of S 45th Street
- S Lawrence Street on either the north or south side of S 45th Street
- S Union Avenue on either the north or south side of S 45th Street
- Any intermediate alleys in the segments listed above, unless they provide
  exclusive property access or are needed for city services

S Warner Street, S Pine Street, S Tacoma Way, and S 47th Street are arterial roadways
and shall remain fully open to all vehicular traffic (two-way in separate lanes) and all
pedestrian traffic at all times with the following exceptions:

Relating to S Warner Street:

- Single-lane closure (partial or full for a given direction) while maintaining two-way
  traffic flow in shifted/temporary lanes (with concurrent parking lane closure(s))
  will be allowed at the intersection of S Warner Street/S 45th Street between the
  hours of 7 a.m. and 6 p.m. on weekdays I associatio
  with active construction
  and with an accompanying traffic control plan (submitted at least 10 working days
  before work begins) and the approval of the Engineer. Associated minor
  encroachments into S Warner Street (with appropriate associated controls) may
  be permitted during other hours of the day/night (with Type C steady burn lights)
  if needed to protect/delineate completed work or work in progress. To minimize
  disruption to Pierce Transit operations and access to adjacent properties, the
  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.
- With support and concurrence of extenuating circumstances and as reflected in a
  submitted traffic control plan (at least 10 working days before work begins), traffic
  flow may considered by the City to be permitted to operate in a two-way flagger-
  controlled lane. This shall not be a default traffic control scenario and would only
be considered for use/approval with supporting reasoning and explicit overall
benefit to the traveling public and/or adjacent neighborhood. If considered and
approved, the plan would need to reflect use of and advance deployment of
PCMS and the plan would only be permitted to be in use during the hours of 9:00
AM to 2:00 PM based on traffic demands.

- The Contractor shall coordinate disruptions to Pierce Transit routes and/or bus
  stops, at least ten (10) working days prior to impacts to/encroachments into S
  Warner Street.

Relating to S Pine Street:

- Single-lane closure (curb lane adjacent to project limits) while maintaining two-
  way traffic flow in normal travel lanes will be allowed at the intersection of Pine
  Street/S 45th Street between the hours of 7 a.m. and 3 p.m. on weekdays with an
  accompanying traffic control plan (submitted at least 10 working days before
  work begins) and the approval of the Engineer. Associated minor encroachments
  into the Pine Street curb lane may be permitted during other hours of the
day/night (with Type C steady burn lights) if needed to protect/delineate
completed work or work in progress, but shall not result in the clear width of
travel lane(s) to be reduced to less than 10 feet. To minimize disruption to Pierce
Transit operations and access to adjacent properties, the work area shall be
limited to the 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.

- Active work areas and/or retained encroachments for completed work or work in
  progress within Pine Street shall require a PCMS to be deployed at least seven
  (7) calendar days in advance and retained in place until the work is completed
  and the encroachment is cleared.

- The Contractor shall coordinate disruptions to Pierce Transit routes and/or bus
  stops, and including potential Tacoma School District buses, at least ten (10)
  working days prior to impacts to/encroachments into S Pine Street.

Relating to S 47th Street:

- Single-lane closure (westbound or eastbound curb lane adjacent to project limits)
  while maintaining two-way traffic flow in normal travel lanes will be allowed at the
  intersections of S 47th Street/S Puget Sound Avenue and S 47th Street/S Junett
  Street between the hours of 7:30 a.m. and 4 p.m. (but not for concurrent work
  zones on each side of S 47th Street) on weekdays with an accompanying traffic
  control plan (submitted at least 10 working days before work begins) and the
  approval of the Engineer. Associated minor encroachments into the S 47th Street
curb lane (only one direction at a time) may be permitted during other hours of
the day/night (with Type C steady burn lights) if needed to protect/delineate
completed work or work in progress, but shall not result in the clear width of
travel lane(s) to be reduced to less than 10 feet. To minimize disruption to Pierce
Transit operations and access to adjacent properties, the work area shall be
limited to the 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.

- Active work areas and/or retained encroachments for completed work or work in
  progress within Pine Street shall require a PCMS to be deployed at least seven
(7) calendar days in advance and retained in place until the work is completed and the encroachment is cleared.

- The Contractor shall coordinate disruptions to Pierce Transit routes and/or bus stops, and including potential Tacoma School District buses, at least ten (10) working days prior to impacts to/encroachments into S 47th Street.

Relating to S Tacoma Way:

- Single-lane closure (northbound curb lane adjacent to project limits) while maintaining two-way traffic flow in normal travel lanes will be allowed at the approximate intersection area of S Tacoma Way/S 45th Street between the hours of 7:30 a.m. and 4 p.m. on weekdays with an accompanying traffic control plan (submitted at least 10 working days before work begins) and the approval of the Engineer. Associated minor encroachments into the S Tacoma Way curb lane (northbound) may be permitted during other hours of the day/night (with Type C steady burn lights) if needed to protect/delineate completed work or work in progress, but shall not result in the clear width of travel lane(s) to be reduced to less than 10 feet. The work area shall be limited to the 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.

- Active work areas and/or retained encroachments for completed work or work in progress within S Tacoma Way shall require a PCMS to be deployed at least seven (7) calendar days in advance and retained in place until the work is completed and the encroachment is cleared.

In addition, advance coordination with the Tacoma School District and Madison Middle School is required to disseminate (with City review and approval) construction and parking/intersection impact information to parents and school visitors.

The temporary traffic control devices defining any right-of-way encroachments shall be affixed with Type C steady burn lights for increased conspicuity if they will be in use during low-light/night-time conditions.

Portable Changeable Message Signs (PCMS) must be established at least seven (7) days in advance of work starting on a given arterial roadway to advise traveling public of upcoming work and lane closures/restrictions at beginning of work zone corridor and on any approaches to the work zone corridor from intermediate arterial roadways. PCMS shall be maintained even after temporary traffic control provisions have been established, but PCMS must be redeployed at least seven (7) days in advance of a new stage/area of work that requires new notice to the traveling public as determined by the City.

If work is occurring within the functional area of a signalized intersection and/or the temporary traffic controls adversely affect the operation of the signalized intersection, then Uniform Police Officer control of the intersection/intersection approaches will be required (and shall be via first right of refusal for the City of Tacoma Police Department) for the duration of time of the affected state of the intersection’s functional area. Based on Police requirements, the associated traffic control plan may require modification to adhere to Police control protocols.
A safe pedestrian access shall be provided at all times through the project area. Project work at/near intersection corners that also preclude use of the sidewalk and/or pedestrian ramps shall allow for pedestrian passage to and through the corner (in a direction, or directions, commensurate with work zone allowances) through existing conditions or temporarily established conditions meeting or exceeding the level of accessibility that existed prior to the project. Additionally, spotters shall be provided to assist pedestrians (and particularly students) as part of the temporary traffic control provisions for any locations identified as a school walking route/crossing.

Any road/lane closures shall be coordinated at least five (5) working days in advance with the adjacent properties, businesses, other contractors working within the project vicinity, local transit agencies (which require 10 days' notice) 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 at least seventy-two (72) hours in advance. 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 through their inclusion in a submitted traffic control plan (provided at least 10 working days before work begins).

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 five (5) working days in advance.

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.

The fifth paragraph of this section is supplemented with the following:
An all-weather, functional roadway shall consist of a minimum four inch (4”) layer of
crushed surfacing base material to be provided and maintained on all roadway areas
disturbed by construction and used to maintain vehicular traffic as required by these
Special Provisions.

The unit Contract price for "Crushed Surfacing Base Course," at per ton, as listed in the
Proposal shall be full pay for all labor, equipment, and materials required to furnish,
place, compact, and grade the material necessary to maintain an all weather functional
roadway.

The Proposal quantity for "Crushed Surfacing Base Course" is intended to provide for
the additional material necessary to maintain an all-weather, functional roadway as
described above and is an estimate only.

The sixth paragraph of this section is supplemented with the following:
Trenches backfilled with CDF shall be protected from traffic with steel plates. The plates
shall remain in place for 24-hours after placement of the CDF or until CDF is compacted
or hardened to prevent rutting by construction equipment or traffic.

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 of implementation of any street closures/detours
allowed under the Contract via traffic control plans submitted for review/approval at least
10 working days prior to the start of work. Advance notice signing shall be placed a
minimum of five (5) working days prior to implementation of any street closure/detour.

A minimum of five (5) working days (ten (10) working days for Pierce Transit) prior to any
street closure, the Contractor shall notify all entities below:

Tacoma Fire Dept. (253-591-5775)
Tacoma Police Dept. (253-591-5932)
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.

Add the following new sections:

1-07.28 Third Party Beneficiary
(*****)

All parties agree that the State of Washington shall be and is hereby named as an express third-party beneficiary of this contract, will full rights as such.

1-07.29 State Interest Exclusion Clause

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract resulting from this solicitation for bids.

END OF SECTION
1-08 PROSECUTION AND PROGRESS

Add the following new section:
1-08.0 Preliminary Matters
(May 25, 2006 APWA GSP)

1-08.0(1) Preconstruction Conference
(October 10, 2008 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.

1-08.4 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.

This section is supplemented with the following:

The Contractor shall schedule all operations to have the fewest possible obstructions and the least possible inconvenience to all properties located in the vicinity of the proposed work. The Contractor shall schedule work such that the installation of sand, geotextile, and permeable ballast for the PHMA section and crushed surfacing top course for the HMA section are placed concurrently with the roadway excavation process. At no time shall the roadway excavation process extend more than 300 linear feet ahead of the installation of sand, geotextile, permeable ballast and crushed surfacing top course per the applicable pavement section. Contractor shall schedule operations accordingly.
Contractor shall provide one dozen donuts and coffee at the weekly progress meeting. Donuts shall be from Connie Donuts in 4065 Pacific Ave, Tacoma, WA 98418 or approved equal.

1-08.5 Time for Completion
(November 30, 2018  APWA GSP, Option A)

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 non-working 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. Monthly Reports of Amounts Credited as DBE 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. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).

g. 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 **375** working days.

**1-08.9 Liquidated Damages**

**(August 14, 2013 APWA GSP)**

*Revise the fourth paragraph to read:*

When the Contract Work has progressed to **Substantial Completion as defined in the Contract**, the Engineer may determine that the work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

**END OF SECTION**
1-09 MEASUREMENT AND PAYMENT

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 issupplemented 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

(* *****)

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

The Contractor shall keep lanes, open to traffic at all times except when Work requires

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

Approved lane 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 WSDOT GSP, Option 1)

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

Evergreen Safety Council

12545 135th Ave. NE

Kirkland, WA 98034-8709
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.

Portable Changeable Message Signs shall be required on arterials streets where construction occurs for durations longer than seven (7) calendar days or where specified in Section 1-07.23. 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.

To prevent a hacker from getting access to the Portable Change Message Signs (PCMS), the contractor is required to change the default password and to take other appropriate measures for field access to message control features on the PCMS. In addition, the contractor shall verify the PCMS control box, if any, is secured and locked from tampering during the daily review of the work zone set up and conditions of the traffic control devices.

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 Payment

1-10.5(1) Lump Sum Bid for Project (No Unit Items)
(******)

Section 1-10.5(1) is supplemented with the following:

Costs for layout, installation, removal, and transport of project identification signs,
including Department of Ecology project identification signs, shall be included with the
Contract lump sum price for “Project Temporary Traffic Control”. This Bid item shall also
constitute full compensation for all labor, tools, equipment, and materials necessary and
incidental to providing traffic and pedestrian control as required throughout the project
duration in compliance with the MUTCD including, but not limited to, temporary
illumination, reflective signage, barricades, lights, traffic cones, and temporary pavement
markings. Provide flaggers and a Traffic Control Supervisor during all periods of
construction activities and include all costs associated with preparing and receiving
approval for the Traffic Control Plans, including all revisions and updates necessary
throughout the duration of the project. The lump sum cost also includes all payment for
obtaining and maintaining traffic control permits and shall be included in the lump sum
Bid item “Project Temporary Traffic Control”.

END OF SECTION
Add the following new section:

1-11 CONSTRUCTION QUALITY ASSURANCE PLAN

(******)

1-11.1 Description

The below outlines the documentation of construction quality best practices related to construction.

1-11.2 Submittal Requirements

The Construction Quality Assurance Plan shall be submitted prior to start of construction.

1-11.3 Construction Requirements

1-11.3(1) Construction Quality Assurance Plan

The Contractor shall establish, implement, and maintain a formal Construction Quality Assurance Plan (QAP). The QAP must address the following quality control elements:

- Construction schedule with a summary of planned construction activities, their sequence, interrelationships, durations and terminations.
- Description of the construction management organization, management procedures, lines of communication and responsibility.
- Description of anticipated quality control testing that includes type of test, frequency and who will perform tests.
- Description of change order process that includes who will initiate change orders, as well as who will review, negotiate, and approve change orders.
- Description of technical records handling methodology that includes where plans and specifications, as-built drawings, field orders and change orders will be kept.
- Description of the construction inspection program that includes inspection responsibility, anticipated inspection frequency, deficiency resolution, and inspector qualifications.

A template is available in Appendix C Construction Quality Assurance Plan in these Special Provisions.

1-11.4 Measurement

Developing an approved “Construction Quality Assurance Plan” and implementing said plan will not be measured for separate payment.

1-11.5 Payment

All costs for developing the approved plans as specified above and implementing said plans shall be included in “Mobilization” and no additional compensation will be made.

END OF SECTION
2-01  CLEARING, GRUBBING, AND ROADSIDE CLEANUP

(****)

2-01.1 Description

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

The Contractor shall clear, grub, and cleanup those areas contained within the “Daylight Line” limits indicated on the Plans.

This section is supplemented with the following:

Trees, stumps, shrubs, and brush located outside the Clearing & Grubbing limits shall be considered as part of “Clearing and Grubbing” when identified for removal on the Plans.

2-01.2 Disposal of Usable Material and Debris

The second paragraph is revised to read:

The Contractor shall dispose of all debris in accordance with Section 2-01.2(2).

2-01.3(1) Clearing

This section is revised to read:

1. Fell trees only within the area to be cleared.
2. Close-cut parallel to the slope of the ground all stumps to be left in the cleared area outside the slope stakes.
3. Close cut all stumps that will be buried by fills 5-feet or less in depth.
4. Follow these requirements for all stumps that will be buried by fills deeper than 5-feet from the top, side, or end surface of the embankment or any structure and are in a location that will not be terraced as described in Section 2-03.3(14):
   a. Close-cut stumps under 18-inches in diameter.
   b. Trim stumps that exceed 18-inches in diameter to no more than 12-inches above original ground level.
5. Leave standing any trees or native growth indicated by the Engineer.
6. Trim all trees to be left standing to the height specified by the Engineer, with a minimum height of eight (8) feet above sidewalk and fourteen (14) feet above the roadway surface. Neatly cut all limbs close to the tree trunk.
7. Thin clumps of native growth as the Engineer may direct.
8. Protect, by fencing if necessary, all trees or native growth from any damage caused by construction operations in accordance with Standard Plans LS-08 through LS-11.
9. Remove all fencing as shown on the Plans.
10. Remove and dispose of, or relocate the following existing features where necessary within the project limits or as indicated on the Plans:
    a. Cement concrete gutter boxes.
    b. Large rocks used for the purpose of landscaping or as a barrier when inside the paving limits.
    c. Wood curbs, logs, railroad ties, and other timber used for landscaping when inside the paving limits.
11. Perform all work as required by the certified Arborist Report in the Appendix to protect, remove, trim, prune roots or limbs, and any other works detailed in the Arborist Reports. This includes all labor, time, and materials for this work.
12. Remove trees as indicated on the plans or as directed by the Engineer. The tree removal shall include stump grinding to eight inches below final grade and removal of roots according to the Plans and Specifications, and as directed by the Engineer and certified Arborist, such that a new tree can be planted in the same area. Tree removal shall be in accordance with Specification Section 2-13.

This section is added:

2-01.3(1)A Tree Protection

Trees not marked for removal or in clearing and grubbing limits shall be protected in accordance with Standard Specifications, Urban Forestry Manual, City of Tacoma Standard Plan LS-08 through LS-11, and certified arborist recommendations. Protection activities shall include, but are not limited to, use of straight edge buckets for excavation, hand digging where necessary, clean cutting roots that need removal, root shaving, installing wire mesh and fencing, protecting cut roots.

2-01.3(2) Grubbing

Item e is revised to read:

Upon which embankments will be placed, except stumps may be close-cut or trimmed as allowed in Section 2-01.3(1) item 4.

Add the following sections:

2-01.3(5) Certified Arborist

The Contractor shall provide a certified Arborist on site to assess and provide an arborist log to the Engineer for all work within the Tree Protection Zone of a tree in accordance with the Urban Forestry Manual and the Tacoma Municipal Code 13.06.502. All work done in the critical root zone shall be in compliance with the direction provided by the certified Arborist.

The Certified Arborist shall provide an arborist log or report for all direction provided to the Contractor and shall submit the log to the Engineer.

The certified Arborist shall be on site to assess and provide direction for all tree trimming, limb or root pruning of greater than 2 inches, and tree removals as specified in the Plans or other tree work as directed by the Engineer.

The Arborist shall be certified by the International Society of Arboriculture (ISA).

2-01.4 Measurement

This section is supplemented with the following:

No specific unit of measurement shall apply to the force account item “Certified Arborist”.

2-01.5 Payment

This section is supplemented with the following:

“Certified Arborist”, Force Account
The force account contract price for “Certified Arborist” shall be full pay for all labor, materials, and equipment to provide a certified Arborist on site during construction to perform all tree assessments not provided in the Arborist Report in Appendix E, provide tree assessment reports, direct all tree trimming, root and limb pruning, and tree removals. All work performed under the direction of the Certified Arborist shall be paid for by “Certified Arborist”. The Contractor shall submit an Arborist log for all direction provided to the Contractor for approval by the Engineer. No extra payment shall be made for any delays in construction schedule to provide a certified Arborist and to perform Arborist Assessments and to complete any work directed by the Arborist.

END OF SECTION
2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS
(December 9, 2005 Tacoma GSP)

2-02.3 Construction Requirements
The first paragraph is revised to read:

With certain exceptions, the Contractor shall raze, remove, and dispose of all buildings
and foundations, Structures, fences, traffic circles, culverts, and other obstructions that
lie wholly or partially within the Right of Way. The exceptions are utility-owned
equipment and any other items the Contracting Agency may direct the Contractor to
leave intact.

2-02.3(3) Removal of Pavement, Sidewalks, and Curbs
This section is deleted.

END OF SECTION
2-03 ROADWAY EXCAVATION AND EMBANKMENT
(*****)

2-03.1 Description
The last sentence of the first paragraph is revised to read:
The work includes the removal and disposal of abandoned gas mains, gas services, water services, and other abandoned underground utilities that exist within an excavation area.

2-03.3(5) Slope Treatment
This section is deleted.

2-03.3(19) Removal of Pavement, Sidewalks, Curbs, and Gutters
This section is deleted.

END OF SECTION
2-06  SUBGRADE PREPARATION

2-06.1 Description
(******)

Supplement this section with the following:

The Work consists of preparing graded Roadbed for permeable ballast for paving permeable roadway that is designed to infiltrate into the native ground.

The Work shall include the construction of a filter sand layer beneath the permeable ballast for permeable pavement where shown on the Plans. The filter sand layer shall meet Special Provisions Section 9-03.13. Contractor shall install the filter sand layer per Special Provisions Section 4-05.

2-06.3 Construction Requirements

Add the following new section:

2-06.3(3)  Subgrade for Permeable Pavements
(March 9, 2016 APWA GSP)  

Before placing permeable ballast the Contractor shall bring the Subgrade to the required line, grade, and cross-section. The Contractor shall compact the Subgrade to a depth of 6 inches to at least 90 percent, but not more than 92 percent, of the maximum density as determined by the compaction control tests described in Section 2-03.3(14)D. Two (2) density tests will be conducted for every 5,000 square feet of prepared subgrade; or four (4) tests per 200 lineal feet of roadway or sidewalk. All subgrade shall be firm and unyielding as determined by the Engineer.

The Contractor shall take measures to protect the prepared and approved subgrade from traffic, water run-on, standing water, or other damage. Subgrade that has been over compacted shall be scarified to a minimum depth of eight (8) inches and recompacted.

Material used to protect the Subgrade from traffic or provide access to adjacent facilities shall be removed and the subgrade compacted prior to placing geotextile, if used and/or permeable ballast.

2-06.3(4) Subgrade Maintenance and Protection

Immediately after the contractor constructs the subgrade or completes initial subgrade repair to the City’s satisfaction, the contractor shall maintain and protect the subgrade. Any defects or damage of the subgrade thereafter shall be repaired or replaced according to Section 2-06, at the Contractor’s expense before placement of any succeeding courses or pavement. Maintenance and protection of the subgrade shall be the responsibility of the Contractor. The Contractor shall be required to take precautionary measures to prevent damage by heavy loads or equipment, as well as from inclement weather.
The Contractor and City Inspector should walk the exposed subgrade on a daily basis to
determine if there is damage to the subgrade. Any Subgrade areas that require repair
according to this section shall be determined solely by the City Inspector.

2-06.5 Measurement and Payment
(March 9, 2016 APWA GSP)
Supplement this section with the following:

Measurement for Subgrade for Permeable Pavement will be in accordance with 2-06.5.

END OF SECTION
2-07 WATERING
(August 3, 2009 Tacoma GSP)

2-07.3 Construction Requirements
The last sentence of the first paragraph is revised to read:

The Engineer may direct that the Contractor apply water during non-working hours such as evenings, weekends, or recognized holidays.

Section 2-07.3 is supplemented with the following:

2-07.3(1) Water Supplied from Hydrants

There is no guarantee that all fire hydrants will be available for use for cleaning, lining, or any other construction activities associated with this project. Prior to construction activities, it shall be the Contractor’s responsibility to verify which hydrants will be available by contacting Tacoma Water. The Contractor shall use only those hydrants designated by Tacoma Water.

Water supplied from hydrants governed by Tacoma Water shall be used in strict compliance with the “Operating Procedures for the use of Water Division Hydrants” available at the Tacoma Water Permit Counter.

The Contractor shall obtain a Hydrant Permit prior to start of work by contacting the Water Permit Counter at (253) 502-8247, 2nd floor, Tacoma Public Utilities, Administrative Building, 3628 South 35th Street, Tacoma, WA 98409. A copy of the approved Hydrant Permit shall be submitted to the Engineer.

Contractor personnel shall be in possession of a valid Tacoma Public Utilities Hydrant Certification Card prior to obtaining a permit. If necessary, contractor personnel shall undergo training to receive the required certification. Contact the Water Permit Counter to set up training as necessary.

END OF SECTION
2-09  STRUCTURE EXCAVATION
(March 17, 2016 Tacoma GSP)

2-09.4 Measurement
This section is supplemented with the following:

Longitudinal Limits. For all storm and sanitary sewers, the longitudinal measurement will be from center of manhole to center of manhole or to the inside face of catch basins and similar type structures.

The fourth paragraph is revised to read:

There will be no specific unit of measure for the excavation required for manholes, catch basins, grate inlets, and drop inlets.

2-09.5 Payment
The pay item for “Structure Excavation Class B” is supplemented with the following:

“Structure Excavation Class B”, per cubic yard.

The unit Contract price for “Structure Excavation Class B” shall be full payment for all excavation, removal of water; storing, protecting and re-handling of suitable backfill material; backfilling of the trench, compaction of backfill, and all other work necessary for the construction of the sewer trench.

END OF SECTION
2-12 CONSTRUCTION GEOSYNTHETIC

(*******)

2-12.1 Description
This section is supplemented with the following:
This work shall consist of furnishing and installing geotextile for separation in
conjunction with the filter sand layer installation under the permeable pavement areas.

2-12.2 Materials
This section is supplemented with the following:
The Geotextile for Separation shall be a non-woven geotextile meeting the requirements
of Section 9-33.2(1), Table 3.

2-12.3(2) Separation
This section is revised to read:
The geomembrane liner shall be jointed / seamed as per the manufacturer’s
recommendations.

2-12.4 Measurement
This section is modified with the following:
Construction Geotextile for Separation used in conjunction with the filter sand layer
installation shall be measured as “Construction Geotextile for Separation”, per square
yard, actual installed.

END OF SECTION
2-13 VEGETATION REMOVAL
(March 17, 2003 Tacoma GSP)

2-13.1 Description
This Work shall consist of the removal and disposal of vegetation identified on the Plans.

2-13.2 Definition of Vegetation
A “tree” is defined as any self-supporting, woody perennial plant having a main stem (trunk) and which normally attains a height of at least ten (10) feet at maturity, usually with one (1) main stem or trunk and many branches.

A “shrub” is defined as any woody perennial plant which normally attains a height of less than ten (10) feet at maturity and which can be construed to have some landscape value.

“Brush” is defined as any perennial vegetation which normally attains a height of ten (10) feet or less at maturity, which is not maintained as part of a landscape feature, which is “volunteer” growth or which exists in a naturalized state. Examples include but are not limited to stands of blackberries and scotch broom.

2-13.3 Construction Requirements
All stumps not identified for removal shall be close-cut parallel to the slope of the ground.

All stumps identified for stump grinding shall be ground to eight inches below final grade.

Disposal of all debris shall be in accordance with Section 2-01.2(2).

2-13.4 Measurement
Trees shall be classified by the measured circumference at a point four and one-half (4-1/2) feet above average ground level. Trees that have several stems at the four and one-half (4-1/2) foot height will be considered a tree clump. The largest diameter single stem will be measured and will dictate the class rating. Only the largest, single stem in the clump will be utilized for measurement and payment.

Stumps shall be classified by the measured circumference at the highest point of the stump above the average ground level or a point four and one-half (4-1/2) feet above the average ground level, whichever is less.

Trees and stumps will be classified as follows:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 0</td>
<td>Less than 12 inches</td>
</tr>
<tr>
<td>Class I</td>
<td>12 inches up to but not including 36 inches</td>
</tr>
<tr>
<td>Class II</td>
<td>36 inches up to but not including 72 inches</td>
</tr>
<tr>
<td>Class III</td>
<td>72 inches up to but not including 127 inches</td>
</tr>
<tr>
<td>Class IV</td>
<td>127 inches or more (Tree height greater than 30 feet)</td>
</tr>
<tr>
<td>Class V</td>
<td>127 inches or more (Tree height of 30 feet or less)</td>
</tr>
</tbody>
</table>
2-13.5 Payment

Payment for all vegetation removal shall paid in accordance with Section 2-01, and shall be included in the lump sum price for “Clearing and Grubbing”. Payment

END OF SECTION
2-14 PAVEMENT REMOVAL
(March 17, 2003 Tacoma GSP)

2-14.1 Description

The Work described in this section includes the removal and disposal of pavement surfaces identified on the Plans or as marked in the field.

2-14.2 Pavement Classification

Removal of pavement will be according to type and class based on composition and thickness, as defined below:

Type I
Pavement removal where all or portions of the existing pavement is being removed in conjunction with street construction or any other removal not described below for Type II or Type III.

Type II
Pavement removal required for the placing of utilities at greater and varying depths, such as sewers.

Type III
Pavement removal required for narrow and shallow utility cuts in order to install light cables, conduits and similar shallow utilities.

Class A2
Class A2 pavement removal shall apply to the removal of asphalt concrete, bituminous road surfacing, multiple lift bituminous surface treatments or any combination of these components having an average thickness of two inches or less.

Class A4
Class A4 pavement removal shall apply to the removal of asphalt concrete, bituminous road surfacing, multiple lift bituminous surface treatments or any combination of these components having an average thickness between two inches and four inches.

Class A8
Class A8 pavement removal shall apply to the removal of asphalt concrete, bituminous road surfacing, multiple lift bituminous surface treatments or any combination of these components having an average thickness between four inches and eight inches.

Class C6
Class C6 pavement removal shall apply to all non-reinforced cement concrete pavements or slabs having an average thickness of six inches or less. After the curbs and pavement have been constructed, the Contractor may be required to remove additional sidewalk necessary to provide proper connections and grades, as determined by the Engineer.

Class C12
Class C12 pavement removal shall apply to all non-reinforced cement concrete pavements or slabs having an average thickness of between 6 inches and 12 inches.
Class CA  
Class CA pavement removal shall apply to all pavements that have a wearing surface of asphalt concrete upon a cement concrete pavement or, cement concrete base, and for which the total combined thickness of the pavement averages between six inches and twelve inches.

Class H  
Class H pavement removal shall apply to early type pavement of a cement concrete base with a brick or cobblestone surface and potentially an additional layer of asphalt concrete pavement for which the total combined thickness of the pavement averages between ten inches and twenty inches.

2-14.3 Construction Requirements

All final meetlines shall be sawcut.

Where monolithic cement concrete pavement and curb are being removed, the curb removal shall be considered as pavement removal, and the measurement for payment will be to the back of the curb.

The removal of existing street improvements shall be conducted in such a manner as not to damage utilities and any portion of the improvement that is to remain in place. Any deviation in this matter will obligate the Contractor, at no expense to the Contracting Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

In the event a pavement averages more than the maximum thickness specified for its class, an additional payment will be made to cover the extra thickness removed by a proportional conversion into additional square yards.

The contractor shall coordinate all driveway removals with property owners one week prior to scheduled removal. Temporary measures shall be installed to allow use of driveways to properties between demolition and permanent restoration.

2-14.4 Measurement

Pavement removal will be measured per square yard.

Type I pavement removal will be measured in its original position through the use of survey techniques.

2-14.5 Payment

Payment will be made in accordance with Section 1-04.1.

"Remove Existing Pavement, Type ___Class___", per square yard

All costs associated with saw cutting meet lines shall be included in the unit Contract price for pavement removal.
There will be no unit of measurement to provide temporary access to properties impacted by construction activities. All costs for this work shall be included in other bid items.

END OF SECTION
2-15 CURB AND CURB AND GUTTER REMOVAL
(March 17, 2003 Tacoma GSP)

2-15.1 Description

The Work described in this section includes the complete removal and disposal of curbs and curb and gutter identified on the Plans or as marked in the field.

2-15.2 Curb Classification

Removal of curb and/or curb and gutter will be based on composition, as defined below:

Integral Curb - Integral curb shall consist of curb that is constructed monolithic with the adjacent cement concrete pavement.

Curb - Curb may consist of cement concrete curb, granite curb, or any other combination of rigid material that extends below the pavement surface elevation.

Extruded/Precast Curb - Extruded or precast curb may consist of asphalt or concrete extruded or precast curb that is installed on a pavement surface.

Curb and Gutter - Curb and gutter may be cement concrete, or a cement concrete curb with a brick gutter on a cement concrete base, or other combination of rigid material.

2-15.3 Construction Requirements

Integral curb removal shall consist of the removal of the curb and the integral base section under the curb. The removal shall be accomplished by sawcutting along the face of the curb.

The removal of the curb and/or curb and gutter shall be conducted in such a manner as not to damage utilities and any portion of the improvement that is to remain in place. Any deviation in this matter will obligate the Contractor, at no expense to the Contracting Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

2-15.4 Measurement

Curb and curb and gutter removal will be measured per linear foot.

2-15.5 Payment

Payment will be made in accordance with Section 1-04.1.

“Remove Integral Curb”, per linear foot

“Remove Curb”, per linear foot

“Remove Extruded/Precast Curb”, per linear foot
“Remove Curb and Gutter”, per linear foot

All costs associated with saw cutting necessary for the removal of curb and/or curb and gutter shall be included in the unit Contract price for removal.

END OF SECTION
2-16  REMOVAL OF CATCH BASINS, MANHOLES, CURB INLETS, ETC.
(March 17, 2003 Tacoma GSP)

2-16.1 Description
The Work described in this section includes the complete removal and disposal of catch basins, manholes, and curb inlets as identified on the Plans.

2-16.2 Vacant

2-16.3 Construction Requirements
Where the structures are removed, the excavation shall be backfilled with native material if deemed suitable by the Engineer or imported backfill material.

Material determined by the Engineer to be unsuitable at the time of excavation shall be removed and replaced with imported backfill material. Payment will be made at the unit contract price of the item in the proposal, or as extra work under Section 1-04.4 if not included as an item in the proposal.

All pipe openings shall be plugged in accordance with 7-08.3(4).

The removal of the structures shall be conducted in such a manner as not to damage utilities and any portion of the improvement that is to remain in place. Any deviation in this matter will obligate the Contractor, at no expense to the Contracting Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.

2-16.4 Measurement
The removal of catch basins, manholes, and curb inlets will be measured per each.

2-16.5 Payment
Payment will be made in accordance with Section 1-04.1.
“Remove Catch Basin”, per each
“Remove Manhole”, per each
“Remove Curb Inlet”, per each

All costs associated with the placement and compaction of the backfill material shall be included in the unit Contract price for removal.

END OF SECTION
3-04 ACCEPTANCE OF AGGREGATE
(April 1, 2012 Tacoma GSP)

3-04.1 Description
*The first and third paragraphs are deleted.*

*The fourth paragraph is revised to read:*

Nonstatistical evaluation will be used for the acceptance of aggregate materials.

3-04.3(1) General
*The first sentence is revised to read:*

For the purpose of acceptance sampling and testing, all test results obtained for a material type will be evaluated collectively.

3-04.3(4) Testing Results
*This section is replaced with the following:*

The results of all acceptance testing will be provided by the City’s Project Engineer within 3 working days of testing.

3-04.3(6) Statistical Evaluation
*This section is deleted:*

END OF SECTION
4-04 BALLAST AND CRUSHED SURFACING

(******)

4-04.1 Description
This section is supplemented with the following:

Subgrade preparation for non-permeable areas shall be per Section 2-06 of the WSDOT
Standard Specifications. Subgrade preparation for permeable areas shall be per Special
Provisions Section 2-06.3(3) Subgrade for Permeable Pavements.

4-04.2 Materials
This section is supplemented with the following:

Permeable Ballast 4-04.3(11) & 9-03.9(2)
Crushed Surfacing Top Course 9-03.9(3)
Crushed Surfacing Base Course 9-03.9(3)

4-04.3(5) Shaping and Compaction
(March 9, 2016 APWA GSP)
Supplement this section with the following:

Immediately following spreading and final shaping each layer of surfacing shall be lightly
compacted in one lift until no visible movement of aggregate is observed resulting in a
firm and unyielding condition, as determined by the Engineer.

END OF SECTION
Supplement Division 4 with the following new section:

4-05  FILTER SAND
(******)

4-05.1 Description

This Work shall consist of constructing one layer of filter sand upon prepared subgrade in accordance with these Special Provisions and in conformity with the line, grades, depths, and typical cross-sections. The filter sand installation provides treatment and promotes infiltration along the entire permeable pavement subgrade, stabilizes the base layer, and protects the underlying soil from compaction.

4-05.2 Materials

Materials shall meet the requirements of the following Section:

Filter Sand Layer Special Provision 9-03.13

4-05.3 Construction Requirements

Filter sand shall be uniformly spread upon the prepared subgrade to the depth, width, and cross-section where shown on the Plans. Filter sand shall be compacted with a minimum 10-ton vibratory roller, making two passes in static mode.

4-05.4 Measurement

“Filter Sand” will be measured by the ton based on certified truck tickets collected by the inspector at the end of each working day. Tickets will be accepted for payment after the end of each working day only when prior arrangements have been made with the inspector.

4-05.5 Payment

Payment will be made in accordance with Section 1-04.1 for the following Bid item:

“Filter Sand”, per ton

The contract Bid shall be full compensation for all labor, material, tools, and equipment necessary or incidental to satisfactorily completing the work as defined in these Special Provisions and the Plans, including procuring, hauling, placing, compacting, and grading.

END OF SECTION
Supplement Division 4 with the following new section:

4-06 PERMEABLE ASPHALT TREATED BASE (PATB)
(******)

4-06.1 Description

Permeable asphalt treated permeable base (PATB) consists of a compacted course of base material which has been weatherproofed and stabilized by treatment with an asphalt binder.

This work consists of constructing one or more courses of permeable asphalt treated base (PATB) upon a prepared foundation or base in accordance with these Specifications and in conformity with the lines, grades, thicknesses, and typical cross-sections shown in the Plans or as established by the Engineer.

4-06.2 Materials

Materials shall meet the requirements of the following sections:

<table>
<thead>
<tr>
<th>Material</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>9-02.1</td>
</tr>
<tr>
<td>Anti-Stripping Additive</td>
<td>9-02.4</td>
</tr>
</tbody>
</table>

4-06.2(1) Aggregates for Permeable Asphalt Treated Base (PATB)
General Requirements

Aggregates for permeable asphalt treated base shall be manufactured from ledge rock, talus, or gravel, in accordance with the provisions of Section 3-01 that meet the following test requirements:

<table>
<thead>
<tr>
<th>Test Requirement</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles Wear, 500 Rev.</td>
<td>30% maximum</td>
</tr>
<tr>
<td>Degradation Factor</td>
<td>15 minimum</td>
</tr>
</tbody>
</table>

4-06.2(2) Grading

Aggregates for permeable asphalt treated base (PATB) shall meet the following requirements for grading:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2&quot;</td>
<td>100</td>
</tr>
<tr>
<td>1&quot;</td>
<td>90 - 100</td>
</tr>
<tr>
<td>3/4&quot; square</td>
<td>80-95</td>
</tr>
<tr>
<td>1/2&quot; square</td>
<td>35-65</td>
</tr>
<tr>
<td>3/8&quot; square</td>
<td>25-45</td>
</tr>
<tr>
<td>U.S. No. 4</td>
<td>0 - 30</td>
</tr>
</tbody>
</table>
The aggregate shall consist of a combination of crushed and natural aggregates with a
percent fracture greater than 75% on one face on the No. 4 sieve and above, in
accordance with the field operating procedures for AASHTO T 335.

4-06.2(3) Test Requirements
When the aggregates are combined within the limits set forth in Section 9-03.6(2) and
mixed in the laboratory with the designated grade of asphalt, the mixture shall meet the
following test values:

<table>
<thead>
<tr>
<th>% of Theoretical Maximum</th>
<th>80 @ 75 gyrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity (Gmm)</td>
<td>(approximate = 20% void space)</td>
</tr>
</tbody>
</table>

AASHTO T324, WSDOT TM T718 or Pass (Acceptable anti-strip evaluation tests)

ASTM D3625

The sand equivalent value of the mineral aggregate for permeable asphalt treated base
(PATB) shall not be less than 35.

4-06.2(4) Paving Asphalt
The grade of paving asphalt binder shall be PG58H-22 unless otherwise specified by the
Contract.

The manufacture of PATB may include warm mix asphalt (WMA) processes in
accordance with these Specifications. WMA processes include organic additives,
chemical additives, and foaming that allow for lower mixing and placement temperatures
without impacting the final PATB pavement properties.

4-06.3 Construction Requirements

4-06.3(1) Asphalt Mixing Plant
Asphalt mixing plants for PATB shall meet the following requirements:

4-06.3(1)A Heating
The plant shall be capable of heating the aggregates to the required temperature.

4-06.3(1)B Proportioning
The mixing plant shall be capable of proportioning: the aggregates to meet the
Specifications, and the asphalt binder at the rate specified in the approved job mix
formula (JMF). If the aggregates are supplied in two or more sizes, means shall be
provided for proportioning or blending the different sizes of aggregates to produce
material meeting the Specification requirements.
### 4-06.3(1)C Mixing

The mixer shall be capable of producing a uniform mixture of uniformly coated aggregates meeting the requirements of these Specifications.

### 4-06.3(2) Preparation of Aggregates

Aggregates for PATB shall be stockpiled before use in accordance with the requirements of Section 3-02. The aggregates shall be heated in the Asphalt Mixing Plant in compliance with the JMF and related temperature viscosity curves for the asphalt binder grade specified.

### 4-06.3(3) Mix Design

The asphalt binder for PATB shall be PG 58H-22 polymer modified or higher grade unless otherwise stated. Binder content shall be between 3.0% and 4.5% by total weight of the mix, and will be the highest percentage that passes void requirements test at \( N_{\text{design}} = 75 \) gyrations. The binder content tolerance shall be \( \pm 0.3\% \) during production/placement of the PATB. The Contractor shall adjust the aggregate to meet the targeted void space specification.

Target void space shall be approximately 20% per ASTM D3203 to determine binder content. Field placed density shall meet the requirements in section Density & Infiltration Testing for Acceptance.

The Contractor shall include a mix design submittal documenting the PATB mix design test results presented alongside the mix design specification criteria included in this Specification, along with the submittal temperature-viscosity curves from the polymer-modified asphalt binder supplier showing the recommended mixing and compaction temperatures developed for dense graded HMA applications.

The Contractor shall determine anti-strip requirements for PATB and provide data for anti-strip dosage as part of the mix design approval process. The PATB mix shall be tested for its resistance to stripping by water in accordance with ASTM D-3625. If the estimated coating area is not above 95 percent, a Qualified Products List (QPL) anti-stripping agent shall be added to the PATB to a level that achieves 95 percent plus asphalt binder retention using ASTM D-3625. The Contractor shall be responsible for conducting the anti-stripping evaluation and providing a report to the Engineer. A documented anti-stripping evaluation (either AASHTO T324 or WSDOT TM T718) of an existing dense graded hot mix asphalt (HMA) from the same aggregate source and binder supplier as the proposed PATB may be used to document acceptable anti-strip dosage rates in lieu of ASTM D-3625 testing.

### 4-06.3(4) Mixing

The asphalt treated permeable base shall be mixed in accordance with the requirements of Section 5-04.3(8).

### 4-06.3(5) Hauling Equipment

Hauling equipment for asphalt treated permeable base shall conform to the requirements of Section 5-04.3(2).
4-06.3(6)  Spreading and Finishing

Permeable asphalt treated base shall be spread with a spreading machine equipped with a stationary, vibratory, or oscillating screed or cut-off device, subject to the approval of the Engineer. Approval of the equipment shall be based on a test section demonstrating that the finished product will meet all requirements of the Specifications. Automatic controls will not be required.

The internal temperature of the PATB mixture at the time final rolling and targeted consolidation is achieved shall be a minimum of 185°F. Rollers shall only be operated in the static mode when the internal temperature of the PATB in less than 175°F.

Unless otherwise directed by the Engineer the nominal compacted depth for any layer of PATB shall not exceed 0.40 feet. A light tack coat (approximately 0.02 gallons/square yard residual asphalt) shall be applied between lifts of PATB. A tack coat shall also be applied between the PATB surface and the subsequent paving lifts when cleaning of the PATB surface is necessary.

Tack coat shall be uniformly applied to cover the existing porous pavement with a thin film of residual asphalt free of streaks and bare spots. A heavy application of tack coat shall be applied to all joints. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor’s operation damages the tack coat it shall be repaired prior to placement of the PHMA.

Unless otherwise approved by the Engineer, the tack coat shall be CSS-1 or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

4-06.3(7)  Subgrade Protection Course

Unless otherwise specified by the Engineer, the Contractor shall place the PATB as a protection for the prepared foundation or base on all sections of individual Roadways which are to receive PATB as soon as 2,200 square yards of prepared foundation or base is completed. This requirement shall not be limited to contiguous areas on the project.

The surface of the prepared foundation or base protection layer when constructed on a grading project shall conform to grade and smoothness requirements that apply to the prepared foundation or base upon which it is placed.

4-06.3(8)  Finish Course

The final surface course of the PATB, excluding shoulders, shall not deviate at any point more than ⅜ inch from the bottom of a 10-foot straightedge laid in any direction on the surface on either side of the Roadway crown. Failure to meet this requirement shall...
necessitate sufficient surface correction to achieve the required tolerance, as approved
by the Engineer, at no expense to the Contracting Agency.

When portland cement concrete pavement is placed on an asphalt base, the surface
tolerance of the asphalt base shall be such that no elevation lies more than 0.05 feet
below nor 0.00 feet above the plan grade minus the specified plan depth of portland
cement concrete pavement. Prior to placing the portland cement concrete pavement,
any such irregularities shall be brought to the required tolerance by grinding or other
means approved by the Engineer, at no expense to the Contracting Agency.

4-06.3(9) Density & Infiltration Testing for Acceptance

The PATB shall be consolidated to a firm and unyielding state. The Contractor will
develop a roller pattern that will initially consolidate the pavement structure and then use
static rolling only thereafter to prevent over compaction. The PATB shall be compacted
to a density of not less than 80% of the maximum theoretical (Rice) density established
for the mix by WSDOT FOP for AASHTO T209. In place Nuclear Density Gauge testing
shall be performed by the Contractor to monitor the consolidation effort and to avoid over
compaction. The frequency of these tests shall be at the discretion of the Engineer. The
use of equipment which results in damage to the materials, over consolidates the PATB
or produces substandard workmanship will not be permitted.

Pneumatic tire rollers shall not be used.

The Contractor shall conduct infiltration tests on the finished PATB per ASTM C1701 at
locations chosen by the Engineer. Newly-placed PATB shall have a minimum infiltration
rate of 150 inches/hour. Infiltration tests shall be completed every 150 linear feet of
roadway and conducted in accordance with ASTM C1701. Target density may be
adjusted and used for acceptance, at the discretion of the Engineer, if the PATB is
consistently meeting the 150 inches/hour acceptance standard.

If the measured infiltration rate is less than 150 inches/hour, the Contractor shall conduct
four additional tests as follows in line with the paver direction of travel. Two tests
upstream and two tests downstream of the initial test location shall be taken at distances
of 20 feet and 40 feet. Results of the additional tests will be averaged. The Contractor
shall conduct additional testing upstream and downstream to identify areas to be
removed. If the average infiltration rate is less than required the Contractor shall remove
and replace the failing PATB areas at the direction of the Engineer and at no cost to the
Contracting Agency.

4-06.4 Measurement

PATB will be measured by the ton in accordance with Section 1-09.2, based on certified
truck tickets collected on the day of placement. No deductions will be made for the
weight of asphalt binder, anti-stripping additive, tack coating between lifts or any other
component of the mixture.

4-06.5 Payment

Payment will be made for the following Bid item:
"Permeable Asphalt Treated Base, PG ____ ", per ton.

The unit contract price per ton for “Permeable Asphalt Treated Base, PG ____ ” shall be full pay for all labor, equipment, and materials required to construct the PATB including joints, where required, haul, compaction, tack coat, anti-stripping additive, if required, and Contractor testing as specified.

END OF SECTION
5-04  HOT MIX ASPHALT
The title of this section is revised to read:

5-04  POROUS ASPHALT AND HOT MIX ASPHALT

5-04.1 DESCRIPTION
(******)

Supplement this section with the following:

This Work shall also consist of providing and placing one or more layers of plant-mixed porous hot mix asphalt (PHMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans or established by the Engineer. The manufacture of PHMA may include porous warm mix asphalt (PWMA) processes in accordance with these Specifications. PWMA processes include organic additives, chemical additives, and foaming.

5-04.2 MATERIALS
(******)

Supplement this section with the following:

5-04.2(1) How to Get an HMA Mix Design on the QPL
(******)

This section is supplemented with the following:

The Contractor shall determine anti-strip requirements for HMA and provide laboratory test data for anti-stripping.

The Contractor shall provide a mix design based upon 3 million ESAL’s.

FORTA-FI® Reinforcing Fibers:

1. Submit the following as part of the bid package:
   a. Representative fiber product sample.
   b. Fiber product data sheet and certification from the Manufacturer that the fiber product supplied meets the requirements of this specification.
   c. Manufacturer’s instructions and general recommendations.

2. For alternative reinforcing fiber products that do not meet material property requirements in Section 5-04.2 above, the following performance verification data must be submitted.
   a. Indirect Tensile (IDT) Strength Tests from a minimum of three (3) separate laboratory trials.
1. Tests must be performed by an AASHTO accredited laboratory or nationally recognized university testing lab and must be reviewed and approved by the project engineer.

2. Perform indirect tensile tests using the protocol from AASHTO T-322-12 or ASTM D6932-12

3. Tests results shall include a control and a fiber reinforced mix. FRAC mix shall be identical to control mix except for the inclusion of fibers added at the same dosage as proposed on the project.

4. Indirect tensile test results from fiber specimens shall show an average tensile strength increase of 30 percent over control specimen with no less than 25 percent increase of average tensile strength.

b. Fiber extraction results from a minimum of three (3) separate laboratory trials.
   1. Tests must be performed by an AASHTO accredited laboratory or nationally recognized university testing lab and must be reviewed and approved by the project engineer.
   2. Perform fiber extraction based on modified ASTM D-2172 procedures as provided in the document entitled "Extraction of aramid fibers from fiber reinforced asphalt concrete". A copy of the modified extraction methodology can be obtained by making an inquiry to the Pavement and Materials laboratory at Arizona State University at NCE@asu.edu.
   3. Samples must be obtained during a production run of FRAC mixed at a full-scale asphalt plant.
   4. Fiber extraction results should result in an average extracted fiber content of not less than 0.007 percent by total sample weight with no individual result less than 0.005 percent of the total sample weight.

c. A minimum of five unique project examples and references where the submitted fiber was used within 500 miles of the project location.

5-04.2(1)D Mix Design for PHMA

(*....*)

This section is added.

Mix Designs for PHMA shall be submitted to the Engineer on Washington State DOT Form 350-042 with the additional PHMA test data required by this specification provided as a one page supplemental attachment. The supplemental test data form is available at http://www.wsdot.wa.gov/partners/apwa/PorousAsphaltPavement.pdf.

The asphalt binder for PHMA/PWMA shall be PG 58V-22 polymer modified or higher grade. Binder content shall be between 6.0% and 7.0% by total weight of the mix, and will be the highest percentage that passes both the drain down and void requirements tests at $N_{design} = 75$ gyrations. The binder content tolerance shall be ±0.3% during production/placement of the PHMA/PWMA. The Contractor shall adjust the aggregate to meet the maximum drain down test requirements within the ranges provided below.

1. Drain down shall be 0.3 %, maximum, according to ASTM D6390
2. Void ratio shall be 16% to 25% per ASTM D3203 at $N_{design} = 75$ gyrations.
The Contractor shall include with the submittal temperature-viscosity curves from the polymer-modified asphalt binder supplier showing the recommended mixing and compaction temperatures developed for dense graded HMA applications.

The Contractor shall determine anti-strip requirements for PHMA/PWMA and provide data for anti-stripping. The asphaltic mix shall be tested for its resistance to stripping by water in accordance with ASTM D-3625. If the estimated coating area is not above 95 percent, anti-stripping agents shall be added to the asphalt. Contractor shall be responsible for conducting the anti-stripping evaluation and providing a report to the Engineer.

Alternately, anti-strip evaluation of an existing dense graded hot mix asphalt of the same maximum nominal aggregate class and from the same aggregate materials source may be used to set the anti-stripping requirements for PHMA/PWMA. The anti-strip requirement for the PHMA/PWMA shall be equivalent to the anti-stripping requirement for the HMA.

The PHMA Mix Design shall also include the FORTA-Fi® Reinforcing Fibers per Special Provisions Section 5-04.3(7)A1.

5-04.3 Constriction Requirements
(******)

Supplement this section with the following:

Two (2) inches of HMA shall be placed and maintained as temporary surfacing in open cut areas of streets, driveways and sidewalks as directed by the inspector. Temporary HMA paving shall be done so that the entire pavement cut will receive a temporary patch by the conclusion of the day’s work to allow resumption of normal traffic patterns. Temporary paving shall be placed such that it will hold up to heavy traffic for an extended period of time. All paving shall be saw-cut prior to excavation.

Temporary HMA paving widths shall be neat line of the trench with the exception of the wastewater main in S. 45th Street, which shall be 8-ft in width.

It shall be the Contractor’s responsibility to protect the edge of the paved roadway at all times. The expense for pavement repairs beyond the limits defined above due to over-excavation or damage to the roadway edge caused by heavy equipment, spoil cleanup or other operations of the Contractor shall be the responsibility of the Contactor.

The removal of trench backfill and HMA for temporary surfacing to establish base grades for permanent street sections will be incidental to the bid.

5-04.3(2) Paving Under Traffic
(******)

The second paragraph is supplemented with the following:

No traffic shall be allowed on any newly placed pavement without the approval of the Engineer.
**5-04.3(3)A Mixing Plant**

(******)

Supplement this section with the following:

Plants used for preparation of PHMA shall conform to the following requirements:

8. Fiber Supply System

When fiber stabilizing additives are determined necessary to achieve drain down criteria per APWA GSP 5-04.3(7)A of these Specifications, a separate feed system that meets the following shall be required:

- Accurately proportions by weight the required quantity into the mixture in such a manner that uniform distribution will be obtained.
- The fibers shall be uniformly distributed prior to the injection of the asphalt binder into the mixture. When a continuous or drier-drum type plant is used, the fiber shall be added to the aggregate and uniformly dispersed prior to the injection of asphalt binder.

9. Surge and Storage Systems

The storage time for PHMA/PWMA mixtures shall be no more than four (4) hours for non-insulated silos or eight (8) hours for insulated silos. Placement temperature specifications shall be met regardless of silo storage time.

**5-04.3(3)B Hauling Equipment**

(******)

Supplement this section with the following:

The temperature of the mix at the time of discharge from the haul vehicle shall be within the temperature range identified in the approved PHMA submittal.

**5-04.3(3)C Pavers**

(******)

The second paragraph is deleted.

**5-04.3(3)D Material Transfer Device or Material Transfer Vehicle**

(******)

The first paragraph is revised to read:

A Material Transfer Device/Vehicle (MTD/V) shall not be used unless specific paving areas are specified below. A MTD/V shall only be used according to this special provision for the following paving areas:

**5-04.3(4)C Pavement Repair**

(******)

This section is revised to read:

Pavement repair shall be in accordance with the City of Tacoma Right-of-Way Restoration Policy found at www.govME.org.
Pavement repair consists of asphalt concrete sawcut, removing asphalt concrete pavement, crushed surfacing and subgrade, and placing crushed surfacing top course, and HMA in accordance with the Contract or as directed by the Engineer.

Pavement repair excavation may also be performed by the use of a milling machine of a type that has operated successfully on work comparable with that to be done under the contract and shall be approved by the Engineer prior to use. If a milling machine is used for excavation, the excavation shall be as directed by the Engineer.

In all types of excavation, after the removal of the asphalt, the base material will be evaluated by the Engineer to determine if it is suitable. If the base is determined not to be suitable, the Contractor shall remove the base material and restore sub-grade in accordance with Section 2-06 and the Plans, regardless of the method used for excavation.

Estimated plan quantities for pavement repair are approximate and are provided for bidding purposes only. The actual dimensions to be used will be verified by the Engineer at the time of construction. Contrary to Section 1-04.6, no changes to the unit prices bid for the various items will be permitted due to any increase or decrease in the amount of pavement repair.

Payment for pavement repair shall be by the unit Bid prices according to the Contract for all materials, labor, and equipment required to complete the pavement repair. Items not included in the Proposal shall be paid for according to Section 1-04.1(2).

5-04.3(6) Mixing

Supplement this section with the following:

FORTA-Fl® Reinforcing Fibers:

1. Delivery & Storage: Deliver fiber-reinforcement to plant in sealed, undamaged containers with labels intact and legible, indicating material name and lot number. Store materials covered and off the ground. Keep sand and dust out of boxes and do not allow boxes to become wet.

2. Add aramid/polyolefin reinforcing fiber blends at a dosage rate of 1lb per ton of asphalt.

3. Add alternative reinforcing fibers at the dosage that achieves the IDT and Fiber Extraction Test results required in part 2 of section 5-04.3(7)A1.

4. Have a fiber manufacturer's representative on site during mixing and production. This requirement can be waived if fiber manufacturer and asphalt producer can supply evidence of manufacturer's brand of fiber being successfully produced a minimum of three times at the asphalt plant to be used for the project.

5. Batch Plant. When a batch plant is used, add fiber to the aggregate in the weigh hopper and increase both dry and wet mixing times. Ensure that the fiber is uniformly distributed before the injection of asphalt cement into the mixture.

6. Drum Plant:
A. Inject fibers through the RAP collar by placing fibers on the RAP belt or by feeding them with a blower tube system. Rate the feeding of fibers with the rate the plant is producing asphalt mix. If there is any evidence of fiber balls at the discharge chute, increase the mixing time and/or temperature or change the angle of the fiber feeder line to increase dry mixing time.

   a. For manual feeding, place fibers on the RAP belt at intervals based on the plant production rate.

B. When using a blower tube system, add fibers continuously and in a steady uniform manner. Provide automated proportioning devices and control delivery within ±10% of the mass of the fibers required. Perform an equipment calibration to the satisfaction of the fiber manufacturer’s representative to show that the fiber is being accurately metered and uniformly distributed into the mix.

Include the following with the blower tube system:

- Low level indicators
- No-flow indicators
- A printout of feed rate status in pounds/minute
- A section of transparent pipe in the fiber supply line for observing consistency of flow or feed.
- Manufacturer’s representative’s approval of fiber addition system

5-04.3(7) Spreading and Finishing

Supplement this section with the following:

Placement temperature of the mixture shall be within the temperature range identified in the approved PHMA/PWMA submittal.

5-04.3(10) HMA Compaction Acceptance

5-04.3(10)A HMA Compaction – General Compaction Requirements

Supplement this section with the following:

Pneumatic tire rollers shall not be used for compaction of PHMA/PWMA.

The Contractor shall develop a roller pattern that will initially consolidate the pavement structure as well as target 15% to 18% final air voids (82% to 85% of maximum theoretical (Rice) density). The Contractor shall monitor compaction during placement of PHMA/PWMA with a pavement density gauge.

5-04.3(10)B HMA Compaction - Cyclic Density

This section is deleted.

5-04.3(17) Placement of Reinforcing Fibers

This section is added.

Reinforcing Fibers:
1. Follow manufacturer’s representative’s recommendations for placement of FRAC.
2. Visually observe FRAC mix in the back of first three trucks and every tenth truck thereafter to confirm adequate blending of the fiber.
3. Remove any observed fiber balls from placed mixture and adjust operations per the manufacturer’s recommendation to eliminate future fiber ball development.

5-04.3(18) Porous Asphalt (PHMA/PWMA) Acceptance Infiltration Test
(******)
This section is added.

Contractor shall conduct infiltration tests on the finished PHMA/PWMA per ASTM C1701 at locations chosen by the Engineer. Newly-placed PHMA/PHWA shall have a minimum infiltration rate of 100 inches/hour. 1 Infiltration test shall be completed every 150 linear feet of roadway and conducted in accordance with ASTM C1701.

If the measured infiltration rate is less than 100 inches/hour, the Contractor shall conduct an additional four infiltration tests in line with the paver direction of travel. Two tests upstream and two tests downstream of the initial test locations shall be taken at distances of 20 feet and 40 feet. Results of the additional tests will be averaged. The Contractor shall conduct additional testing upstream and downstream to identify area to be removed. If the average infiltration rate is less than required remove and replace the failing section at the direction of the Engineer and at no cost to the Contracting Agency.

5-04.4 Measurement
(******)
The first paragraph is revised to read:

HMA Cl. ___ PG ___, PHMA Cl ___ PG ___, PWMA, HMA for __ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, blending sand, mineral filler, anti-stripping additive, blended with FORTA-FI® reinforcing fibers or approved equivalent, or any other component of the mixture; and the measurement shall include asphalt wedge curbs, and thickened edges in accordance with the Plans or as directed by the Engineer. If the Contractor elects to remove and replace mix as allowed in Section 5-04.3(11), the material removed will not be measured.

The second paragraph is revised to read:

No specific unit of measure will apply to roadway cores, which shall be included in the measurements for the HMA items that are included in the Proposal.

This section is supplemented with the following:

“Temporary HMA Cl ___ PG ___, ___-Inch Minimum Depth, Installed & Removed”, shall be measured per square yard.

No specific unit of measure will apply to Anti-Stripping Additive, which shall be included in the measurements for the HMA items that are included in the Proposal.

PHMA Cl. ½” PG58V-22 blended with FORTA-FI® reinforcing fibers or approved equivalent, will be measured by the ton.
5-04.5 Payment  
(June 16, 2016 Tacoma GSP)
Pay items for “Job Mix Compliance Price Adjustment” and “Compaction Price Adjustment” are deleted.

The following pay items for HMA are revised to read:

“HMA Cl. ___ PG ___”, per ton.
“HMA for ___ Cl. ___ PG __”, per ton.

The unit Contract price per ton for “HMA Cl. ___ PG ___”, and “HMA for ___ Cl. ___ PG ___” shall be full payment for all costs incurred to carry out the requirements of Section 5-04, including coring and testing, and shall include FORTA-FI® reinforcing fibers, anti-stripping additive, asphalt wedge curbs, thickened edges, curb drains, and connection to existing drains in accordance with the Contract. Any costs that are already included in other Bid items in the Proposal shall not be included in the unit Contract prices per ton for these HMA Bid items.

This section is supplemented with the following:

“Temporary HMA Cl___ PG___, ___-Inch Minimum Depth, Installed & Removed”, per square yard.

“Temporary HMA Cl___ PG___, ___-Inch Minimum Depth, Installed & Removed” shall be full compensation for all costs including mobilization, preparation, placement, compaction, maintenance and removal in preparation for permanent street section.

“PHMA Cl. ½” PG 58V-22”, per ton.

The unit Contract price per ton for “PHMA Cl. ½” PG 58V-22” shall be full payment for all costs incurred to carry out the requirements of Section 5-04, including coring and testing, and shall include FORTA-FI® reinforcing fibers, and anti-stripping additive, in accordance with the Contract. Any costs that are already included in other Bid items in the Proposal shall not be included in the unit Contract prices per ton for these HMA Bid items.

5-04.5(1) Quality Assurance Price Adjustments  
(June 16, 2016 Tacoma GSP)
This section is deleted.

END OF SECTION
This section is deleted. The requirements of Section 7-17 shall apply to storm sewers.
7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS
(******)

7-05.1 Description
This section is supplemented with the following:

All references to sanitary sewers shall be construed to also mean storm sewers.

As shown in the plans manhole covers within a crosswalk shall be a slip resistant coating material intended for manhole covers withstanding rough weather, daily vehicle wear and tear, and have a coefficient of friction of 0.6.

7-05.3 Construction Requirements
The first sentence of the eleventh paragraph is revised to read:

A flexible pipe-to-manhole connector shall be used in all connections of rigid and thermoplastic pipes to new precast concrete manholes to provide a watertight joint between the pipe and the manhole, unless otherwise directed by the Engineer. The connector shall be “Kor-N-Seal” with “Wedge Korband” (Type I or II as required for pipe diameter), manufactured by NPC, Inc., Milford, New Hampshire, or Engineer approved equal. The connectors shall be installed in accordance with the manufacturer’s recommendations.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade
This section is revised to read:

7-05.3(1) Adjusting Utility Structures to Grade
Where shown in the Plans or where directed by the Engineer, utility structures shall be adjusted to grade as staked or as otherwise designated by the Engineer.

The materials and methods of construction shall conform to the requirements specified in Section 7-05.3 and Standard Plan No. SU-25. The finished structure shall conform to the requirements of the standard plan for the specific structure.

The City will provide the Contractor with manhole ring and covers for installation. The Contractor will be responsible for picking up the castings at the following location:

Tacoma Central Treatment Plant
2201 Portland Avenue E.
Tacoma, WA 98421

The Contractor will be responsible for securing, storing, and protecting the castings after picking them up from the Tacoma Central Treatment Plant. Any castings that are stolen, lost, or damaged, while in possession of the Contractor shall be replaced by the Contractor at no expense to the City.
7-05.3(3) Connections to Existing Manholes
The first sentence is revised to read:
The Contractor shall inspect the existing manholes in the field to verify invert elevations and the scope of work necessary to make the connection(s) prior to construction.

7-05.4 Measurement
The sixth paragraph is revised to read:
Connections to existing structures will be measured per each.

This section is supplemented with the following:
Reconnecting existing sewer pipes to new manhole structures will be measured per each.
Manholes with Cast-in-Place Base will be measured per each.
Catch Basin Type 2 in excess of 10 feet in height will be measured per linear foot for each additional foot of height over 10 feet. Measurement will be the distance from the flow line of the outlet pipe to the top of the manhole ring measured to the nearest foot.

7-05.5 Payment
The first paragraph is supplemented with the following:
The unit Contract price for “Manhole____” shall be full pay for all work required to furnish and install the new manhole to finished grade, including, but not limited to, excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s), channeling, ladders, steps, and handholds, as applicable per Standard Plans.

The unit Contract price for “Catch Basin____” shall be full pay for all work required to furnish and install the new catch basin to finished grade, including, but not limited to, excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s), frame, cover, as applicable per Standard Plans.

The pay item for “Drop Manhole Connection” is revised to read:
“Drop Manhole Connection, ___-Inch Diam.”, per each.

The pay item for “Connection to Drainage Structure” is revised to read:
“Connect New Sewer Pipe ___-In. Diam. to Existing Structure”, per each

This section is supplemented with the following:
“Reconnect Existing Sewer Pipe, ____-In. Diam., to New Structure”, per each.

The unit Contract price per each shall be full pay for all labor, equipment and materials necessary to reconnect the existing sewer pipe to the new structure as specified in Section 7-05.3.
"Adjust Existing Catch Basin, Furnish New Frame and Grate", per each

The unit Contract price per each for "Adjust Existing Catch Basin, Furnish New Frame and Grate" shall be full pay for all costs associated with adjusting the frame and grate to finished grade, including but not limited to, excavating, furnish and place backfill, furnishing and installing the new frame and grate, compacting, surfacing, and restoration.

"Adjust Existing Manhole, Furnish New Frame and Cover", per each

The unit Contract price per each for "Adjust Existing Manhole, Furnish New Frame and Cover" shall be full pay for all costs associated with adjusting the frame and cover to finished grade, including but not limited to, excavating, furnish and place backfill, compacting, surfacing, and restoration.

"Adjust Existing Valve Chamber to Grade", per each

The unit Contract price per each for "Adjust Existing Valve Chamber to Grade" shall be full pay for all costs associated with the adjusting the valve chamber to finished grade, including but not limited to, excavating, furnish and place backfill, compacting, surfacing, and restoration.

"Manhole __-In. Diam. Type ___, with Cast-in-Place Base", per each.

The unit Contract price per each for "Manhole __-In. Diam. Type ___, with Cast-in-Place Base" shall be full pay for all labor, equipment and materials required to furnish, excavate for, furnish and place backfill, compact, and install to finished grade the new manhole with a cast-in-place base, including, but not limited to, insuring proper support of existing main, channeling, connection of new pipe, ladders, steps, and handholds, as applicable per Standard Plans

"Catch Basin Type 2 Additional Height, __ In. Diam.", per linear foot.

All costs for coordinating with City staff; picking up manhole castings; and securing, storing, and protecting castings shall be included in the unit price for "Manhole_____
and "Adjust Existing Manhole,_______"

END OF SECTION
3. If sediment and water from structures does not meet the conditions described in 1 or 2 above, the Contractor shall collect and dispose of all water used and all debris generated in cleaning operations. No cleaning water or debris shall be flushed downstream beyond the limits of the work.
7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.3 Construction Requirements

7-08.3(1) A Trenches
The tenth paragraph of this section is deleted. All dewatering requirements are found in section 8-01.3(1)C.

7-08.3(1)C Bedding the Pipe
This section is supplemented with the following:
Pipe bedding for sanitary and storm sewers shall be in accordance with City of Tacoma Standard Plan No. SU-16.

7-08.3(2) F Plugs and Connections
This section is supplemented with the following:
Rigid Couplings, manufactured by Romac Industries, Inc., or Engineer approved equal, shall be used at any pipe joint in which bell and spigot or fused joints are not used. Flexible couplings are not permitted, except for side sewer installation.

7-08.3(2) G Jointing of Dissimilar Pipe
This section is revised to read:
Dissimilar pipe shall be joined by use of rigid couplings manufactured by Romac Industries, Inc., or Engineer approved equal, except for side sewer installation.

7-08.3(3) Backfilling
The second paragraph is revised to read:
Pipe zone bedding and trench backfill shall be in accordance with City of Tacoma Standard Plan No. SU-16. (Pipe zone backfill shall meet the requirements of Section 9-03.9(3) for Crushed Surfacing Top Course. Backfill above pipe zone and extra excavation area backfill material shall meet the requirements of Section 9-03.12(2), Gravel Backfill for Walls.) Recycled concrete shall not be used for pipe zone bedding, pipe zone backfill, backfill above pipe zone, and extra excavation area backfill.

The fourth paragraph is revised to read:
Backfill above the pipe zone shall be accomplished in such a manner that the pipe will not be shifted out of position nor damaged by impact or overloading. If pipe is being placed in a new embankment, backfill above the pipe zone shall be placed in accordance with Section 2-03.3(14)C. If pipe is being placed under existing paved areas, or roadways, backfill above the pipe zone shall be placed in horizontal layers no more than 12-inches thick and compacted to 95-percent maximum density. If pipe is being placed in non-traffic areas, backfill above the pipe zone shall be placed in horizontal layers no more than 12-inches thick and compacted to 85-percent maximum density. All compaction shall be in accordance with the Compaction Control Test of Section 2-03.3(14)D. Material excavated from the trench shall be used for backfill above.
the pipe zone, except that organic material, frozen lumps, wood, rocks, or pavement chunks larger than 6-inches in maximum dimension shall not be used. Material determined by the Engineer to be unsuitable for backfill at the time of excavation shall be removed and replaced with imported backfill material meeting the requirements of Section 9-03.12(2). Material determined to be suitable for backfill at the time of excavation shall be stockpiled and used for backfill material. If the stockpiled material becomes unsuitable, the Contractor shall furnish suitable material in an amount equal to that, which became unsuitable, at no expense to the Contracting Agency.

Section 7-08.3 is supplemented with the following:

7-08.3(5) Temporary Bypass Pumping

It shall be the Contractor’s responsibility to maintain operation of the existing storm and/or sanitary sewer systems throughout the duration of the project without any interruption of sewer service. The Contractor shall divert all flows around each segment of the pipe designated for replacement. This diversion shall consist of redirecting flow from an upstream manhole and pumping it to a manhole downstream of the replacement operation. After the pipe replacement work is completed and accepted by the City, flow shall be returned to the reconstructed storm or sanitary sewer. The area affected by the bypass operation shall be fully restored.

Bypass pumping shall be scheduled for continuous operation with back-up equipment available at all times for periods of maintenance and refueling or failure of the primary bypass pump(s) or diversion system. If the Contractor’s operation requires bypass pumping at night, he/she must provide monitoring personnel at all times to ensure the system remains functional.

Bypass pumping shall be done in such a manner as not to damage private or public property, or create a nuisance or public menace. The pumped sewage or stormwater shall be in enclosed hoses or pipes that are adequately protected from traffic, and shall be redirected into the appropriate sewer system. The discharge of storm water to private property, city streets, sidewalks, sanitary sewer, or any location other than an approved storm sewer is prohibited. The discharge of sewage to private property, city streets, sidewalks, storm sewer, or any location other than an approved sanitary sewer is prohibited. The Contractor shall be liable for all cleanup, damages, and resultant fines should the Contractor’s operation cause any backups, overflows, or property damage. The Contractor’s bypass operation shall be sized to handle, at a minimum, the full pipe capacity in each subject line removed from service. If flow conditions are greater than full pipe, the Contractor may elect to wait for flow conditions to subside prior to removing the subject line from service. Working days may be adjusted per Specification 1-08.5. Once the Contractor removes a section of line from service he/she is responsible to bypass any and all flow in the system during construction, even in the event the system surcharges and exceeds the full pipe capacity, until the line is returned to service.

The Contractor shall submit a Bypass Pumping Plan in accordance with Section 1-05. The Contractor’s plan for bypass pumping shall be reviewed by the City before the Contractor will be allowed to commence bypass pumping. The review of the bypassing system and equipment by the Engineer shall in no way relieve the Contractor of his responsibility and public liability.
The City’s estimates of gravity flows in the existing sewers assuming full pipe are as follows:

A. 10-Inch Diameter Sanitary Sewer: 1559 gpm (3.47 cfs)

The Contractor shall submit a Bypass Pumping Plan in accordance with Section 1-05. The Contractor’s plan for bypass pumping shall be reviewed by the City before the Contractor will be allowed to commence bypass pumping. The review of the bypassing system and equipment by the Engineer shall in no way relieve the Contractor of his responsibility and public liability.

The Contractor shall use hard pipe to bypass sewers 12-inches in diameter or greater. The Contractor shall not block any driveways or intersections, but shall bury the pipe to allow continuous access through intersections and driveways.

The Contractor may use lay-flat hose to bypass storm and sanitary sewers that are less than 12 inches in diameter. The Contractor shall ensure that sewage spills do not occur with the use of lay flat hoses. If sewage spills occur, the Contractor will be required to use hard pipe for all sanitary sewers.

7-08.3(6) Abandon Existing Pipe

If construction of the new sewer pipe does not result in the removal of the existing pipe due to differing alignments, then the existing pipe shall be abandoned in place as shown in the Plans. The Contractor shall plug all pipe branches, stubs, or other open ends of the pipe to be abandoned and fill with CDF. The Contractor shall submit a Pipe Abandonment Plan in accordance with Section 1-05.3 describing the proposed methods for filling the pipes with CDF, specifically addressing how the pipes will be filled in a manner that will prevent air pockets from being left in the abandoned pipe. The CDF mix design shall meet the requirements of Section 2-09.3(1)E.

If the pipes to be abandoned are removed and disposed of during construction of the new sewers, all costs for the removal and disposal shall be included in the unit contract price for “Structure Excavation, Class B,” at per cubic yard.

7-08.3(7) Pothole Existing Utility

Prior to start of pipeline construction, the Contractor shall pothole existing underground utilities at the locations identified on the Plans. Contractor shall expose the top and bottom of the utility to verify the exact horizontal and vertical location in the field. The top of the utility shall be field surveyed, and the diameter or dimensions shall be verified and submitted to the Engineer. The Contractor shall schedule City Survey crews a minimum 72-hours prior to potholing.

The Contractor shall provide the Engineer with a copy of the plan sheet with the pothole information clearly shown. Upon receipt of this information, the Engineer will determine if a conflict exists. The City will notify the Contractor within five (5) full working days as to what design modifications, if any, are required to resolve the conflict. The Contractor shall perform the pothole as required to avoid impact to the Contract schedule, based on the five (5) working day review time.
7-08.4 Measurement

This section is supplemented with the following:

No specific measurement shall apply to the lump sum item “Temporary ___ Sewer Bypass”.

No specific measurement shall apply to the lump sum item “Temporary ___ Sewer Bypass Plan”.

Abandonment of existing sewer pipes will be measured by the cubic yard of CDF necessary to fill the existing pipes.

“Pothole Existing Utility” will be measured per each.

7-08.5 Payment

This section is supplemented with the following:

“Temporary ___ Sewer Bypass”, per lump sum.

The lump sum Contract prices for “Temporary ___ Sewer Bypass” shall be full payment for labor, equipment, and materials, including but not limited to, personnel, fuel, monitoring, power, pumps, piping, barricades, emergency stand-by equipment, trenching, surface restoration costs, and all other work necessary to maintain uninterrupted storm and sanitary sewer services by bypassing the applicable sewer system flows.

“Temporary ___ Sewer Bypass Plan”, per lump sum

The lump sum Contract price for “Temporary ___ Sewer Bypass Plan” shall be full payment for all costs, including but not limited to, preparing, submitting, revising, and resubmitting revisions for the Temporary Bypass Plan.

“CDF for Pipe Abandonment”, per cubic yard.

The unit Contract price for “CDF for Pipe Abandonment” shall be full payment for all labor, materials, and equipment necessary to abandon the sewer pipes.

“Pothole Existing Utility”, per each.

The unit Contract price per linear foot for “Pothole Existing Utility” shall be full pay for all labor, equipment and materials required to excavate, furnish and place the backfill, and compact the backfill to the depth of the utility being potholed or as directed by the Engineer.

END OF SECTION
7-17 SANITARY SEWERS
(March 4, 2014 Tacoma GSP)

7-17.1 Description
This section is supplemented with the following:

All references to sanitary sewer shall also mean storm sewers.

7-17.2 Materials
The first paragraph is revised to read:

Pipe materials used for storm and sanitary sewers shall be as shown on plans. All references to PVC shall mean Solid Wall PVC Sewer Pipe. Profile Wall PVC will not be permitted.

This section is supplemented with the following:

Polyvinyl Chloride (PVC) Pressure Pipe (4-inches and over) 9-30.1(5)A

7-17.3 Construction Requirements
This section is supplemented with the following:

If the sanitary sewer crosses above a water main or within 18 inches under a water main, the sanitary sewer shall be encased per the Department of Ecology Criteria for Sewage Works Design (Orange Book) Section C1-9.1.4A. Any encasement of sanitary sewers shall be paid for under force account per Section 1-09.6.

7-17.3(2)A General
The first paragraph is revised to read:

Sewers and appurtenances shall be cleaned and tested after backfilling by either exfiltration or low-pressure air method at the option of the Contractor, except where the ground water table is such that the Engineer may require the infiltration test.

7-17.3(2)H Television Inspection
The first sentence is revised to read:

The Contractor shall be required to provide to the City video inspection services on all sanitary and storm sewers prior to paving where paving occurs over sewers, or prior to final acceptance in non-paved areas.

This section is supplemented with the following:

The Contractor is to provide the City 72 hours of advanced notice so that a City representative may be present during the inspection if so elected. The video shall be submitted for review which may take up to ten (10) working days. If more than ten (10) working days are required for the Engineer’s review of the videos, an extension of time will be considered in accordance with 1-08.8. A minimum, the video files shall meet the technical requirements of 7-17.3(3). No claim will be allowed for damages, or extensions of time resulting from the rejection of a video due to not meeting the technical...
requirements, or issues as seen visually with the constructed assets as shown by the video.

7-17.3(3) Technical Requirements

Add the following new section:

CCTV inspection work must be completed by certified National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) trained operator(s) using established PACP coding and observations. Coding and observation results shall be recorded and presented on a per asset basis, manhole to manhole. A pipe asset is defined as one continuous pipe from the upstream manhole to the downstream manhole. Footage shall be recorded with the starting and ending points being the center of the manholes. The television camera shall have a resolution of 700 lines minimum and shall have a source of illumination attached to it.

The video file format for all CCTV Inspections shall be an unmodified NASSCO-PACP Certified Access Database conducted entirely in digital format with electronic reference to the survey which is intended to be imported into the City’s viewing software, GraniteNet. The PACP database shall include the City’s SAP pipe segment ID. The entire inspection survey shall be recorded in MPEG-2 or wmv format. No other file format will be accepted unless approved by the City.

All videos, database files, and invoices shall be submitted via the Internet web based project management communications tool, e-Builder software.

The Contractor shall provide video identifying the pipe segment by manhole numbers and pipe segment number. The inspection shall identify all connections, general conditions of the sewer pipelines, problem areas, location of all connections or problem areas by linear footage, and observations concerning the condition of the pipe joints. The camera system used shall be capable of travelling up to 500 linear feet.

Although newly constructed, the sewers will likely be in service with flow present during inspections. The lens shall remain clean and clear for the duration of the CCTV inspection. Should the lens become soiled, fogged, or otherwise impaired to any degree that impedes the ability to clearly see the condition of the pipe, the inspection shall be halted to clean and clear the lens. No additional compensation will be made for re-inspections required by the City due to soiled, fogged, or otherwise impaired camera lenses.

The Contractor shall maintain sufficient light levels within the main to allow for visual inspection of the pipe walls for a minimum of four feet for all pipe sizes. Additionally, the Contractor shall make certain that the light levels are not so bright that visual inspection is impeded.

Each individual video inspection shall also include the associated video inspection report for that segment which shall include the following information:

- Date of Inspection
- Main segment number (SAP)
- Upstream and Downstream Manhole Numbers (SAP)
- Street Location
• Setup (Normal or Reverse Flow)
• Pipe size and material
• Status (Active or Inactive) of all side sewers
• Location, length, and depth of water of sags
• Location and description of defects

The CCTV Inspection shall include the following information:
• Date of Inspection
• Main segment number
• Upstream and downstream manhole numbers
• Current distance along the mainline

In addition, the Contractor shall perform wastewater side sewer inspections where they exist via a mainline camera with a lateral launching setup. The lateral launch camera shall be capable of extending at least 30 feet from the main into side sewers and shall include an on-screen footage counter. The quality of the side sewer inspection shall meet the same requirements as the mainline camera. The lateral launch camera be self-leveling and shall also include a sonde transmitter to locate the side sewer in the event of a defect.

7-17.4 Measurement
This section is supplemented with the following:

Removal and replacement of unsuitable, contaminated and non-contaminated, backfill material will be determined by the cubic yard in place, based on a neat line measurement per this Section and Section 2-09. Any removal and replacement of unsuitable material outside neat line measurement shall be incidental to the Bid item.

Horizontal Limits: The horizontal limits shall be as defined in Section 2-09.4.

Longitudinal Limits: The longitudinal limits shall be as defined in Section 2-09.4.

Lower Limits: The lower limits shall be the top of the pipe zone as shown on Standard Plan No. SU-16.

Upper Limits: The upper limits shall be the subgrade elevation of the proposed roadway section or pavement patch section.

All costs associated with the disposal of material located above the upper limits shall be included in the unit contract price for other items of work, unless a proposal item is included for this specific item of work.

Pipe zone limits are as defined in Standard Plan SU-16.

7-17.5 Payment
The first paragraph is supplemented with the following:

“PVC Storm Sewer Pipe ___In. Diam.”, per linear foot.

The second paragraph is revised to read:
The unit Contract price per linear foot for sewer pipe of the kind and size specified shall be full pay for the furnishing, hauling, and assembling in place the complete installation, including but not limited to, disposal of material excavated within the pipe zone, dewatering of trench, furnishing and installing pipe bedding and backfill material within the pipe zone, and all wyes, tees, special fittings, rigid couplings, joint materials, television inspection videos and reports, and other appurtenances necessary for the completion of the installation to the required line and grade, unless proposal items are included for these specific items of work.

“PVC C900 Storm Sewer Pipe ___In. Diam.”, per linear foot.

The unit Contract price per linear foot for sewer pipe of the kind and size specified shall be full pay for the furnishing, hauling, and assembling in place the complete installation, including but not limited to, disposal of material excavated within the pipe zone, dewatering of trench, furnishing and installing pipe bedding and backfill material within the pipe zone, and all wyes, tees, special fittings, rigid couplings, joint materials, television inspection videos and reports, and other appurtenances necessary for the completion of the installation to the required line and grade, unless proposal items are included for these specific items of work.

The pay item “Removal and Replacement of Unsuitable Material” is revised to read:

“Removal and Replacement of Unsuitable Material”, per cubic yard.

The unit Contract price per cubic yard for “Removal and Replacement of Unsuitable Material” shall be full pay for all work required to haul and dispose of the unsuitable material as specified in Section 7-08.3(1)A and the furnishing of suitable backfill material as specified in Section 7-08.3(3).

For the purpose of providing a common proposal for bidders, the proposal quantity for “Removal and Replacement of Unsuitable Material” is based on removal and replacement of all backfill material.

END OF SECTION
7-18 SIDE SEWERS
(March 4, 2014 Tacoma GSP)

7-18.1 Description
This section is supplemented with the following:

The Contractor shall remove and replace existing side sewers as defined on the Plans and reconnect the existing side sewer. The location of the side sewer at the main is estimated based on a TV inspection of the main and may vary in either direction. The actual location at the point of reconnection is unknown.

7-18.3(1) General
This section is supplemented with the following:

The Contractor shall use solid wall PVC pipe meeting the requirements of Section 9-05.12(1) for all side sewers located 10 feet or more from a water service. If the side sewer is located within 10 feet of a water service, the Contractor shall use solid wall PVC pressure pipe meeting the requirements of Section 9-30.1(5)A. If the side sewer crosses above a water main, the side sewer shall be encased per the Department of Ecology Criteria for Sewage Works Design (Orange Book) Section C1-9.1.4A. Any encasement of side sewers shall be paid for under force account per Section 1-09.6.

7-18.4 Measurement
This section is supplemented with the following:

Measurement for payment shall be by the linear foot of pipe installed, and shall be along the pipe invert, through tees, wyes and other fittings, from the centerline of the main to the centerline of the cleanout.

7-18.5 Payment
The second paragraph is revised to read:

The unit Contract price per linear foot for sewer pipe of the various kind and size specified shall be full pay for furnishing, hauling and assembling in place the completed installation including all wyes, tees, special fittings, joint materials, bedding material, and end pipe marker, and any other items necessary for the completion of the installation, unless Proposal items are included for these specific items of Work.

END OF SECTION
7-19 SEWER CLEANOUTS  
(May 13, 2009 Tacoma GSP)

7-19.3 Construction Requirements
The third sentence of the first paragraph is deleted.
The fourth sentence of the third paragraph is deleted.

7-19.5 Payment
The third paragraph is revised to read:
The unit Contract price for “Sewer Cleanout” shall be full pay for furnishing and placing the wye, pipe, pipe bends, pipe plug, castings, and collar as specified herein and as shown on Standard Plan SU-24.

END OF SECTION
7-20 RESIDENTIAL STORM DRAIN
(******)

7-20.1 Description

This work consists of furnishing and installing residential storm drains under the sidewalk as located and detailed in the Plans.

7-20.2 Materials

- PVC Drain Pipe, fittings and couplings  9-05.1(5)
- Ductile Iron Drain Pipe, fittings and couplings  9-05.1(5)
- Wire Mesh Reinforcement  9-07.7
- Grout  9-20.3

7-20.1 Construction Requirements

The Contractor shall construct residential storm drains under sidewalk per Standard Plan SU-29 in locations shown in the Plans. The slope of the drain pipe shall match the cross slope in the sidewalk, including grade-breaks in the sidewalk. The drain pipe shall be connected to the existing building gutter pipe at the top of the sidewalk at the building face or property right of way edge.

7-20.1 Measurement

Residential storm drains shall be measured per each of residential storm drain installed per this section.

7-20.5 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:

“Residential Storm Drain”, per each.

The unit Contract price per linear foot for “Residential Storm Drain” per each shall be full pay for all labor, materials, and equipment required to construct the residential storm drain as shown in the Plans and Standard Plans.
8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

(******)

8-01.1 Description

This section is supplemented with the following:

The City of Tacoma Stormwater Management Manual is available on the City’s website at www.cityoftacoma.org/stormwatermanual.

The City of Tacoma has been issued a Washington State Department of Ecology NPDES Construction Stormwater General Permit for this project. The permit number is WAR310287 and coverage documents can be found here https://apps.ecology.wa.gov/paris/PermitSearch.aspx. This Work also consists of administration and compliance with the requirements of this permit for this project. A copy of this permit is included in Appendix B of these Special Provisions.

Protection of the Environment: No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

8-01.3 Construction Requirements

8-01.3(1) General

This section is supplemented with the following:

The Contractor shall perform all work in compliance with the NPDES Construction Stormwater General Permit issued for this project.

The permit shall be transferred to the Contractor prior to issuance of a Notice to Proceed and terminated upon completion of the project per the following:

1. The City will provide the Contractor with a Transfer of Coverage form prior to issuing a Notice to Proceed.
2. The Contractor shall sign and return the Transfer of Coverage form to the City.
3. The City will process the transfer and pay any associated transfer fees to the Washington State Department of Ecology.
4. Once the transfer is complete and a Notice to Proceed has been issued, the Contractor is responsible for performing all work in compliance with the permit and the plans and specifications.
5. The Contractor shall pay any renewal fees if the need for permit renewal is caused by contractor, otherwise the City will pay all renewal fees.
6. Upon Physical Completion of the Work the Contractor shall submit a Notice of Termination to the Washington State Department of Ecology and provide the City documentation that the termination is effective.

8-01.3(1)A Submittals

This section is revised to read:
The Contractor shall prepare and implement a project-specific Construction Stormwater Pollution Prevention Plan (SWPPP) in accordance with the City of Tacoma Stormwater Management Manual (SWMM), Volume 2. The SWPPP is a document that describes the potential for pollution problems on a construction site and explains and illustrates the measures to be taken on the construction site to control those problems.

The Construction SWPPP shall be prepared as a stand-alone document consisting of two sections: Section 1) Construction SWPPP Narrative and Section 2) Temporary Erosion and Sediment Control (TESC) Plans.

The Contracting Agency has prepared the Construction Stormwater Pollution Prevention Plan Checklist to aid the Contractor in development of the SWPPP. This checklist provides the Contractor with a tool to determine if all the major items are included in the Construction SWPPP and on the TESC Plans and can be found in Volume 2, Chapter 2 of the SWMM. Contractors are encouraged to complete and submit this checklist with the Construction SWPPP.

The Department of Ecology has prepared a SWPPP template that can be used for projects in the City of Tacoma. The template can be found on Ecology’s website at: http://www.ecy.wa.gov/programs/wq/stormwater/construction/resourcesguidance.html. The Contractor developing the SWPPP must ensure that all references are appropriate for the City of Tacoma.

The SWPPP is considered a “living” document that shall be revised to account for additional erosion control/pollution prevention BMPs as they become necessary and are implemented in the field during project construction. A copy of the most current SWPPP and TESC Plan shall remain on-site at all times and an additional copy shall be forwarded to the Engineer. At the Contractor’s preference, revisions to the SWPPP and TESC Plan may be forwarded to the Engineer rather than submitting a complete document. Revisions to the SWPPP and TESC Plan may be kept on-site in a file along with the original SWPPP document.

The Contractor shall provide Stormwater Pollution Prevention Plan inspection reports or forms per 8-01.3(1) B to the Project Engineer no later than the end of the next working day following the inspection.

8-01.3(1)B Erosion and Sediment Control (ESC) Lead

This section is revised to read:

The Contractor shall identify the ESC Lead at the Preconstruction Meeting and the contact information for the ESC Lead shall be added to the Stormwater Pollution Prevention Plan (SWPPP) Report and the Temporary Erosion and Sediment Control (TESC) Plan Sheet. The ESC Lead shall maintain, for the life of the contract, a current Certified Erosion and Sediment Control Lead (CESCL) certificate or maintain a current Certified Professional in Erosion and Sediment Control (CPESC) certificate from a course approved by the Washington State Department of Ecology. The CESCL or CPESC shall be listed on the Emergency Contact List required under Section 1-05.13(1).
The CESCL or CPESC shall direct implementation of the measures identified in the SWPPP and as shown on the TESC plan. Implementation shall include, but is not limited to the following:

1. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the SWPPP and as shown on the TESC plan. Damaged or inadequate BMPs shall be corrected as needed to assure continued performance of their intended function in accordance with BMP specifications and Permit requirements.

2. Performing monitoring as required by the NPDES Construction Stormwater General Permit.

3. Inspecting all on-site erosion and sediment control BMPs at least once every calendar week and within 24 hours of any discharge from the site. A SWPPP Inspection report or form shall be prepared for each inspection and shall be included in the SWPPP file. A copy of each SWPPP Inspection report or form shall be submitted to the Engineer no later than the end of the next working day following the inspection. The report or form shall include, but not be limited to the following:
   a. When, where, and how BMPs were installed, maintained, modified, and removed.
   b. Observations of BMP effectiveness and proper placement.
   c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal SWPPP inadequacies.
   d. Approximate amount of precipitation since last inspection and when last inspection was performed.

4. Updating and maintaining a SWPPP file on site that includes, but is not limited to the following:
   a. SWPPP Inspection Reports or Forms.
   b. SWPPP narrative.
   c. National Pollutant Discharge Elimination System Construction Stormwater General Permit (Notice of Intent).
   d. All documentation and correspondence related to the NPDES Construction Stormwater General Permit.
   e. Other applicable permits.

Upon request, the file shall be provided to the Engineer for review.

8-01.3(1)C Water Management

This section is revised to read:

General. The Contractor is responsible for keeping all excavations free from standing water during construction and disposing of the water in a manner that will not cause pollution, injury to public or private property, or cause a nuisance to the public. Surface water flowing toward, into, or within excavations shall be controlled to prevent sloughing of excavation walls, boils, uplift, and heave in the excavation, and to eliminate interference with orderly progress of construction. The control of water shall be such that softening of the bottom of excavations, or formation of “quick” conditions or “boils” during excavation, shall not occur. The Contractor is responsible for all foundation material required due to lack of dewatering efforts.
All “normal trench dewatering” work associated with maintaining a trench or excavation area suitable for pipeline and Stormwater Treatment Facility construction will be incidental and included in the other items of work. “Normal trench dewatering” is defined as dewatering methods occurring in or directly adjacent to the trench, including trash pumps, sump pumps, or other methods in excavated areas. Normal trench dewatering does not include a dewatering system, such as well points, well screens, or deep wells.

8-01.3(2) Temporary Seeding and Mulching

8-01.3(2)B Temporary Seeding

The first paragraph is supplemented with the following:

Temporary seeding with “Temporary Erosion Control Seed Mix” shall meet the following:

<table>
<thead>
<tr>
<th>Type of Seed</th>
<th>% by Weight</th>
</tr>
</thead>
</table>
| Chewings or Annual Bluegrass
  *Festuca rubra var. commutate or Poa anna*       | 40          |
| Perennial Rye
  *Lolium perenne*                                  | 50          |
| Redtop or Colonial Bentgrass
  *Agrostis alba or Agrostis tenuis*                | 5           |
| White Dutch Clover
  *Trifolium repens*                                | 5           |

The rate of application shall be 120 lbs. per acre.

The fourth paragraph is supplemented with the following:

Seed shall be distributed uniformly over the designated area. Half of the seed shall be sown with the sower moving in one direction, and the remainder with the sower moving at right angles to the first sowing.

8-01.3(2)D Temporary Mulching

The first paragraph is supplemented with the following:

Moderate-Term Mulch shall be applied at a rate of 3,500 lbs. per acre.

8-01.3(2)E Tackifiers

This section is supplemented with the following:

Organic Tackifier shall be applied at a rate per manufacturer’s instructions.

8-01.3(8) Street Cleaning

The third paragraph is revised to read:

Street washing with water shall not be permitted.
8-01.3(9) Sediment Control Barriers

8-01.3(9)D Inlet Protection

Replace the third paragraph of this section with the following:

When the depth of accumulated sediment and debris reaches approximately 1/3 the height of an internal device or 1/3 the height of the external device (or less when so specified by the manufacturer), or as designated by the Engineer, the sediment and debris shall be removed and disposed of per SWMM BMP C220 or as specified on the Plans or within the SWPPP.

The section is supplemented with the following:

Only bag-type filters are allowed for use in the public right of way.

8-01.4 Measurement

This section is supplemented with the following:

No specific unit of measurement shall apply to the lump sum item “Stormwater Pollution Prevention Plan (SWPPP)”.

No specific unit of measurement shall apply to the lump sum item “NPDES Construction Stormwater General Permit”.

No measurement will be made for “normal trench dewatering”.

8-01.5 Payment

The pay item “Erosion/Water Pollution Control”, by force account as provided in Section 1-09.6 is revised to read:

Installation, maintenance, and removal of erosion and water pollution control devices including removal and disposal of sediment, stabilization and rehabilitation of soil disturbed by these activities and any additional Work deemed necessary by the Engineer to control erosion and water pollution will be paid by force account in accordance with Section 1-09.6. Directing implementation by ESC Lead of the measures identified in the SWPPP, shown on the TESC plan, and all other work as included in Section 8-01.3(1)B shall be paid by force account as provided in Section 1-09.6.

This section is supplemented with the following:

“Stormwater Pollution Prevention Plan (SWPPP)”, per lump sum. The lump sum contract price for “Stormwater Pollution Prevention Plan (SWPPP)” shall be full pay for all costs, including but not limited to, preparing, submitting, revising, and resubmitting revisions for the Stormwater Pollution Prevention Plan.
“NPDES Construction Stormwater General Permit”, per lump sum. The lump sum contract price for “NPDES Construction Stormwater General Permit” shall be full pay for all costs, including but not limited to, transfer of coverage, sampling, monitoring, reporting, coordinating, inspecting, materials and labor, and all fees and any other expenses necessary to fully comply with the requirements of the Permit up to and including termination of the Permit and completion of the Work. The lump sum price shall also include all costs necessary to supply the City of Tacoma with all information as necessary to ensure compliance with the permit.

No payment will be made for “normal trench dewatering”.

END OF SECTION
8-02 ROADSIDE RESTORATION

8-02.1 Description
This section is supplemented with the following:

The Work included in “Landscape Restoration” shall include restoration of all landscaped areas within the Daylight Line limits as shown on the Plans. “Landscape Restoration” shall also include reinstatement of all private property landscaping elements necessary to restore surface areas which were removed and retained and that are not included in other bid items.

8-02.2 Materials
This section is supplemented with the following:

   Root Barrier

   Root barrier shall be rigid-type root barrier module panels and shall be at least 75 percent recycled polypropylene or high-impact polystyrene with added ultraviolet inhibitors. Material shall have 0.060-inch to 0.075-inch wall thickness, 18-inch height. Panels shall have reinforcing ribs 1/2-inch deep, raised vertical ribs running perpendicular to sheet, 6 inches on center.

   Tree Watering Bag

   The contractor shall use Tree Watering Bags as a means for tree watering efforts. The Tree Watering Bag materials shall be Treegator® Original (20-gallon capacity) for all deciduous trees, “low profile” Treegator® Jr. (15-gallon capacity) for all evergreen trees (or trees with branches less than 2 feet from the ground that would impede the installation of a Treegator® Original), or an engineer approved equal.

8-02.3 Construction Requirements
This section is supplemented with the following:

   Root Barrier

   The Contractor shall stake location for approval of the Engineer before proceeding with installation. Assemble the appropriate number of root barrier panels as required in the Plans. Trench immediately adjacent to hardscape to the appropriate depth for installation of specified root barrier so that top of barrier is 1/2 inch to 1 inch (12.7 mm to 25.4 mm) above finished soil grade. Place root barrier in trench, vertical ribs facing toward planting area and tree roots. Where possible, use pavement edge as a guide for root barrier alignment. Backfill adjacent planting soil against the root barrier to promote clean fit to hardscape. Fill to finish grade.

   Tree Watering Bag

   The Contractor shall install one Tree Watering Bag per tree shown on the plans, following completion of the planting at the start of the watering season. Install Tree Watering Bag in accordance with manufacturer’s instructions and 8-02.3(13) Plant Establishment.
8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation

This section is supplemented with the following:

All grades shall be maintained in the areas to be planted in a true and even condition. The contractor shall be careful not to disturb any of the existing or cut slopes. Where final grades have not been established, the areas shall be finish graded and all surfaces left in an even and compacted condition. The finished grade shall be such that after planting, the grade shall be flush with adjoining surfaces; positive drainage shall also be maintained.

8-02.3(6) Mulch and Amendments

This section is supplemented with the following:

Recycled/compost material in accordance with Section 9-14.5(8) shall be blended with the specified topsoil at a ratio of 1/1 by volume.

8-02.3(8) Planting

8-02.3(8)C Pruning, Staking, Guying, and Wrapping

This section is supplemented with the following:

Crossed or rubbing branches shall be removed providing the natural shape of the tree is preserved. Under no circumstances shall pruning be done prior to inspection and approval of plants by the Engineer. All cuts shall be made flush with the parent stem leaving no stubs. Pruning cuts shall be made in a manner to favor the earliest possible covering of the wound by callus growth. Cuts that produce large wounds and weaken the tree will not be acceptable.

Top growth removal to compensate for root loss shall not exceed one-third (1/3) of the top growth unless otherwise specified or directed by the Engineer. Cuts created 3/4 inch in diameter shall be treated with an approved tree wound dressing. All pruning shall produce a clean cut without bruising or tearing the bark and shall be in living wood where the wood can properly heal over.

Evergreens shall not be pruned, except to remove injured branches. The use of pole shears and/or hedge shears for pruning deciduous and evergreen trees will not be permitted. All trimmings and other debris left over from the planting operations shall be collected and disposed of off the site.

All evergreen trees and deciduous trees over 15 feet in height shall be guyed with three wires or cables.

All deciduous and evergreen trees shall be staked the same day of planting.

8-02.3(10) Lawn Installation

8-02.3(10)A Dates and Conditions for Lawn Installation

The second paragraph is supplemented with the following:
Where no irrigation system is to be installed, the lawn shall be placed during the following period only:

March 1st – June 30th
September 1st - October 25th

8-02.3(10)B Lawn Seeding and Sodding
The first paragraph is supplemented with the following:

Lawn Installation with “Low-Growing Turf Seed Mix” shall meet the following:

<table>
<thead>
<tr>
<th>Type of Seed</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwarf Tall Fescue (several varieties)</td>
<td>45</td>
</tr>
<tr>
<td><em>Festuca arundinacea</em> var.</td>
<td></td>
</tr>
<tr>
<td>Dwarf Perennial Rye (Barclay)</td>
<td>30</td>
</tr>
<tr>
<td><em>Lolium perenne</em> var. <em>Barclay</em></td>
<td></td>
</tr>
<tr>
<td>Red Fescue</td>
<td>20</td>
</tr>
<tr>
<td><em>Festuca rubra</em></td>
<td></td>
</tr>
<tr>
<td>Colonial Bentgrass</td>
<td>5</td>
</tr>
<tr>
<td><em>Agrostis tenuis</em></td>
<td></td>
</tr>
</tbody>
</table>

The rate of application shall be 120 lbs per acre.

The third paragraph is supplemented with the following:

Topsoil shall be tilled in accordance with City of Tacoma Standard Plan GSI-01b. On sloped areas, the sod strips shall be laid perpendicular to the flow of water.

8-02.3(10)C Lawn Establishment
This section is supplemented with the following:

Lawn that is replaced shall be of the same mixture and grade as the surviving lawn.

8-02.3(11) Mulch

8-02.3(11)B Bark or Woodchip Mulch
The second sentence of the third paragraph is revised to read:

Mulch shall be feathered to plant material trunks, stems, canes, or root collars, and level with the top of junction and valve boxes, curbs and pavement edges.

This section is supplemented with the following:

Bark or wood chip mulch in accordance with Section 9-14.5(3) shall be applied to a depth of 4 inches at the location indicated on the Plans or as directed by the Engineer.
8-02.3(13) Plant Establishment

This section is revised to read:

The Contractor shall maintain the planting areas and all plants planted within the project limits to ensure the resumption and continued growth of the planted material until physical completion of the contract.

Maintenance shall include, but not be limited to, labor and materials necessary for removal of foreign, dead, or rejected plant material, maintaining a weed-free condition, and the replacement of all unsatisfactory plant material planted under the contract. Tree maintenance shall include installation of Tree Watering Bags as specified in 8-02.3 Construction Requirements and watering as specified in the Tree Watering Bag section below.

Planting dates for replacement plant material will be approved by the Engineer.

The Contractor shall meet with the Engineer for the purpose of joint inspection of the project once installation has been completed and thereafter on a periodic "as needed" basis as determined by the Engineer, until the physical completion date of the contract.

All conditions unsatisfactory to the Engineer shall be corrected by the Contractor within a ten-day period immediately following the inspection. Failure to comply with corrective steps as outlined by the Engineer shall constitute justification of the Contracting Agency to take corrective steps and to deduct all costs thereof from any monies due the Contractor.

The Contractor shall replace all plants stolen or damaged by the acts of others until the physical completion date of the contract.

**Tree Watering Bag**

Each tree watering bag shall be filled to capacity not less than once per week during the watering season, which is considered to be April 15th through September 30th. It is the Contractor's responsibility to monitor the water in each watering bag and advise the City if additional water cycles are required. The Contractor shall ensure that each watering bag is functioning correctly and shall replace any malfunctioning, damaged, or stolen watering bags. If a watering bag is stolen or damaged by the acts of others, the City will pay invoice cost with no markup only for the replacement watering bags and the Contractor will be responsible for the labor to install the replacement bags.

Watering will be weather dependent. It is the responsibility of the Contractor to monitor the watering requirements and the frequency may increase or decrease throughout the term of the Agreement. If more than 0.5 inches of rainfall occurs within a 48-hour period, the contractor may elect to forgo tree watering until the rainfall has ceased and for a period of 48 hours following the rain.

Upon completion of the warranty period, the watering bags in good working condition shall become the property of the City. All other watering bags shall be disposed of by the Contractor.
The Contractor shall not use hoses, equipment, or water from private properties when watering trees.

**8-02.3(14) Plant Replacement**

*This section is revised to read:*

The Contractor shall provide the Contracting Agency a one (1) year non pro-rated, full labor and materials warranty for all planted material. The warranty shall cause the Contractor to remove and replace all rejected plant material during the warranty period. The warranty shall require the Contractor to water all planted trees in accordance with section 8-02.3(13) Plant Establishment during the warranty period. During this period the Contractor will complete monthly inspections with a representative from the City to ensure plant materials are properly maintained. The warranty period shall begin at the date of physical completion of the contract and end one calendar year from that date.

The Contractor shall be responsible for growing, watering, or providing enough plants for replacement of all plant material rejected during the warranty period. All rejected plant material shall be replaced at dates approved by the Engineer.

All replacement plants shall be of the same species and quality as the plants they replace. Plants may vary in size reflecting one season of growth should the Contractor elect to hold plant material under nursery conditions for an additional year to serve as replacement plants.

Replacement plants will be subject to the original warranty provision as stated above.

**8-02.4 Measurement**

*The first paragraph is revised to read:*

Topsoil, mulch and soil amendments will be measured by the cubic yard in the haul conveyance at the point of delivery.

**8-02.5 Payment**

*The pay item for “Plant Selection” is revised to read:*

“Plant Selection ___”, per each.

Payment for “Plant Selection ___” shall be full pay for all materials, labor, tools, equipment and supplies necessary for weed control within planting areas, planting area preparation, fine grading, planting, cultivating, providing and placing root barriers, purchasing, placing, and maintaining tree watering bags, and clean-up for the particular items called for in the Plans until the physical completion date of the contract. A one (1) year plant warranty shall be included in the unit contract price.

*Paragraphs 7 through 18, pertaining to partial payment, are deleted.*

*The pay unit of square yards will be used in lieu of acres.*

*The following pay items are revised to read:*

“Topsoil Type__”, per cubic yard
The unit contract price per cubic yard for “Topsoil Type ___” shall be full pay for providing the source of material for Topsoil Type A and C, for pre-excavation weed control, excavating, loading, hauling, intermediate windrowing, stockpiling, weed control on stockpiles or windrows, and removal, placing, spreading, processing, cultivating, and compacting topsoil Type A, Type B, and Type C.

“Bark or Wood Chip Mulch”, per cubic yard.

The unit contract price per cubic yard for “Bark of Wood Chip Mulch” shall be full pay for furnishing and spreading the compost onto the existing soil.

This section is supplemented with the following:

“Landscape Restoration”, force account.

Any restoration of landscape (and associated items not covered under a bid item) necessary to restore surface areas outside the “Daylight Line” Limits as shown on the Plans where pavement has been removed or where excavation has occurred in construction of storm, sewer, and side sewers, pavement, sidewalks and curb ramps shall be paid by force account. Payment for “Landscape Restoration” shall be full pay for all materials, labor, tools, equipment and supplies necessary for complete restoration and necessary work for weed control within planting areas, seeding, fertilizing and mulching, installation of bark or wood chip mulch, installation of topsoil, planting area preparation, fine grading, planting, cultivating, relocating irrigation, and other irrigation works necessary, and clean-up for the particular items called for in the Plans until the physical completion date of the contract. Any restoration needed due to damage or disturbance caused by Contractor beyond the limits of work shall be performed at the Contractor’s expense. Payment for “Plant Selection ___” shall be covered under separate bid items.

END OF SECTION
8-03  IRRIGATION SYSTEM
(April 1, 2018 Tacoma GSP)

8-03.3(5) Installation

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

Final position of turf heads shall be level or ½ inch below finished grade measured from the top of the sprinkler.

The fourth paragraph is revised to read:

Final position of valve boxes, capped sleeves, and quick coupler valves shall be level with the finished grade or mulch.

This section is supplemented with the following:

The Contractor shall advise the Engineer at least 24 hours before pressure tests are to be conducted.

END OF SECTION
8-04  CURBS, GUTTERS, AND SPILLWAYS
(April 1, 2018 Tacoma GSP)

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

The first paragraph is revised to read:

Cement concrete curb, curb and gutters, gutters, and spillways shall be constructed with air entrained concrete Class 3000 conforming to the requirements of Section 6-02.

The follow section is supplemented with the following:

Type ‘D’ Mountable Barrier Curb and Pavement Separation Barrier Curb shall be constructed as detailed in the Plans.

Section 8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways is supplemented with the following:

8-04.3(1)C Integral Cement Concrete Curb

When integral curb is being constructed with the pavement, fresh concrete for the integral curb shall be placed at such time as will enable the top section of the curb to be consolidated, finished, and bonded to the pavement slab while the concrete is plastic.

Where curb is not being placed integral with the pavement slab, reinforcing steel dowels shall be placed in the base section for the curb in accordance with the standard drawing.

Section 8-04.3 Construction Requirements is supplemented with the following:

8-04.3(6) Cold Weather Work

The following additional requirements for placing concrete shall be in effect from November 1 to April 1:

- The Engineer shall be notified at least 24 hours prior to placement of concrete.
- All concrete placement shall be completed no later than 2:00 p.m. each day.
- Where forms have been placed and the subgrade has been subjected to frost, no concrete shall be placed until the ground is completely thawed. At that time, the forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-04.5 Payment

This section is supplemented with the following:

“Integral Cement Conc. Traffic Curb”, per linear foot
“Extruded Curb Type _______”, per linear foot.
“Type ‘D’ Mountable Barrier Curb, per linear foot.
“Pavement Separation Barrier Curb”, per linear foot

END OF SECTION
8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES
(April 1, 2018 Tacoma GSP)

8-06.3 Construction Requirements
The first paragraph is revised to read:
Cement concrete driveway approaches shall be constructed with air entrained concrete
Class 3000 conforming to the requirements of Section 6-02 or Portland Cement
Concrete Pavement conforming to the requirements of Section 5-05.

This section is supplemented with the following sub-section:

8-06.3(1) Cold Weather Work
The following additional requirements for placing concrete shall be in effect from
November 1 to April 1:

• The Engineer shall be notified at least 24 hours prior to placement of concrete.
• All concrete placement shall be completed no later than 2:00 p.m. each day.
• Where forms have been placed and the subgrade has been subjected to frost, no
  concrete shall be placed until the ground is completely thawed. At that time, the
  forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-06.5 Payment
The third paragraph is revised to read:
Excavation required for the construction of the driveway entrance shall be paid for under
the unit Contract price for “Roadway Excavation, Incl. Haul” when included in the
Proposal. Otherwise, the Contractor shall include all costs associated with excavating,
including haul and disposal, regardless of the depth in the unit Contract price for
“Cement Conc. Driveway Entrance Type__”.

END OF SECTION
8-12 CHAIN LINK FENCE AND WIRE FENCE

8-12.1 Description
This section is supplemented with the following:

This work includes constructing wood fence where shown in the Plans. The proposed fencing shall match the existing wood fencing in size, shape, height, and design unless otherwise directed by the Engineer.

8-12.3 Construction Requirements
The first sentence of the second paragraph is revised to read:

For chain link fences, the clearing width shall be to the "Daylight Line" limits as shown on the Plans or as otherwise directed by the Engineer.

This section is supplemented with the following:

Where shown in the Plans, the Contractor shall construct wood fencing to match existing and shall reconnect the wood fencing to the existing fence. The Contractor shall match the shape, height, size, and design of the wood fencing and shall match the wood used to the maximum extent possible unless otherwise directed by the Engineer.

8-12.4 Measurement
This section is supplemented with the following:

Wood Fence will be measured by the linear foot of completed fence along the ground line, exclusive of openings.

8-12.5 Payment
The payment for bid item “Chain Link Fence Type ___” per linear foot is revised to read:

“Chain Link Fence”, per linear foot.

The unit Contract price per linear foot for “Chain Link Fence” shall be full payment for all costs for the specified Work including brace post installation and all other requirements of Section 8-12 for Chain Link Fence, unless covered in a separate Bid Items in this Section. The Contractor shall match existing chain link fence type, no extra payment shall be made for varying types of chain link fence.

This section is supplemented with the following:

“Wood Fence”, per linear foot.

The unit Contract bid item price per linear foot for “Wood Fence” shall be full pay for all time, materials, and labor to construct the wood fence. The Contractor shall match existing wood fence shape, form, and design unless otherwise directed by the Engineer.
MONUMENT CASES
(March 17, 2003 Tacoma GSP)

This section is revised to read:

MONUMENTS

8-13.1 Description

This Work shall consist of constructing monuments in accordance with the Standard Plan and these Specifications, in conformity with the lines and locations shown in the Plans or as staked by the Engineer.

8-13.2 Materials

Concrete shall be Class 3000 in accordance with the requirements of Section 6-02. ‘Ready Mix’ bag concrete shall not be used.

Bronze markers will be supplied by the Contracting Agency on City funded projects.

8-13.3 Construction Requirements

The Contractor shall construct the poured monument in accordance with the City of Tacoma Standard Plan SU-01.

8-13.4 Measurement

Measurement of the poured monument will be per each.

8-13.5 Payment

Payment will be made in accordance with Section 1-04.1. “Poured Monument”, per each.

The unit Contract price per each for “Poured Monument” shall be full pay for all labor, equipment, and materials required to furnish and install the monument, including the removal of existing monuments and necessary pavement removal to accommodate the installation in accordance with the standard plan and specifications.

END OF SECTION
8-14 CEMENT CONCRETE SIDEWALKS
(March 23, 2010 Tacoma GSP)

8-14.3 Construction Requirements

8-14.3(3) Placing and Finishing Concrete
The fourth paragraph is revised to read:
Curb ramps shall be of the type specified in the Plans. The detectable warning pattern shall have the truncated dome shape shown in the Standard Plans.

8-14.3(4) Curing
The second sentence is revised to read:
Curing shall be in accordance with Section 5-05.3(13).

Section 8-14 is supplemented with the following:

8-14.3(20) Cold Weather Work
The following additional requirements for placing concrete shall be in effect from November 1 to April 1:

• The Engineer shall be notified at least 24 hours prior to placement of concrete.
• All concrete placement shall be completed no later than 2:00 p.m. each day.
• Where forms have been placed and the subgrade has been subjected to frost, no concrete shall be placed until the ground is completely thawed. At that time, the forms shall be adjusted and subgrade repaired as determined by the Engineer.

8-14.3(21) Thickened Edge for Sidewalk
Thickened edge shall be constructed in accordance with the standard plan.

8-14.5 Payment
The pay item “Cement Conc. Sidewalk” is supplemented with the following:
All additional costs related to the construction of thickened edges shall be included in the unit contract cost for “Cement Conc. Sidewalk”.

The sixth paragraph is revised to read:
Excavation required for the construction of the sidewalk shall be paid for under the unit contract price for “Roadway Excavation, Incl. Haul” when included in the proposal. Otherwise, the Contractor shall include all costs associated with excavating, including haul and disposal, regardless of the depth in the unit contract price for “Cement Conc. Sidewalk” and/or “Cement Conc. Curb Ramp Type __”.
END OF SECTION
8-18 MAILBOX SUPPORT
(****)

8-18.4 Measurement
This section is supplemented with the following:

Mailbox relocations shall be measured per each mailbox relocated.

8-18.5 Payment
This section is supplemented with

“Relocate Mailbox”, per each.

The unit Contract price per linear foot for “Relocate Mailbox” shall be full pay for costs for the specified Work including but not limited to the salvaging of the existing mailbox and reinstalling the mailbox on a new support. The new mailbox support shall match the type of the existing mailbox support.

END OF SECTION
8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, AND ELECTRICAL (September 4, 2020 Tacoma GSP)

8-20.1(3) Permitting and Inspections
The third paragraph is revised to read:

All new services require a Tacoma Public Utilities Permit and inspection by Tacoma Power. All work on the load side of the service will be inspected by the Signal and Streetlight Shop Inspector.

8-20.2 Materials
This section is supplemented with the following:

The Contractor shall warranty all electrical and mechanical equipment described in this section for satisfactory in service operation for one year following project acceptance. Warranty shall include troubleshooting, labor, materials and all other costs to bring the equipment to a satisfactory level of service. Normal maintenance is not included in the warranty.

8-20.2(1) Equipment List and Drawings
This section is revised to read:

Within 20 days following execution of the Contract, the Contractor shall submit to the Engineer a completed "Request for Approval of Material" that describes the material proposed for use to fulfill the Plans and Specifications.

The Contractor shall submit Type 2 Working Drawings consisting of supplemental data, sample articles, or both, of the material proposed for use. Supplemental data includes such items as catalog cuts, product Specifications, shop drawings, wiring diagrams, etc.

The Contractor shall submit Type 2 Working Drawings consisting of the following information for each different type of luminaire required on the Contract:

1. Isocandela diagrams showing vertical light distribution, vertical control limits, and lateral light distribution classification.
2. Details showing the lamp socket positions with respect to lamp and refractor for each light distribution type. This requires that the Contracting Agency know what the light pattern available are and the light distribution.

Additional submittals for proposed alternate LED Roadway Luminaires shall be in conformance with section 9-29.10.

The Contractor shall submit for approval Type 3E Working Drawings in accordance with Section 1-05.3 for each type of light standard and each type of signal standard called for on this project.

The Engineer's acceptance of any submitted documentation shall in no way relieve the Contractor from compliance with the safety and performance requirements as specified herein.
Submittals required shall include but not be limited to the following:

1. A Type 2 Working Drawing consisting of a material staging plan, should the Contractor propose Contracting Agency-owned property for staging areas.
2. A Type 2 Working Drawing consisting of a cable vault installation plan showing the exact proposed installation location by Roadway station, offset and the scheduled sequence for each cable vault installation.
3. A Type 2E Working Drawing consisting of a pit plan, for each boring pit, depicting the protection of traffic and pedestrians, pit dimensions, shoring, bracing, struts, walers, sheet piles, conduit skids, and means of attachment, casing type, and casing size.
4. A Type 2E Working Drawing consisting of a boring plan depicting the boring system and entire support system.

8-20.3 Construction Requirements

8-20.3(1) General

This section is supplemented with the following:

The Contractor shall call 24 hours prior for inspection before covering any underground conduit, prior to installing any detection loops, or placing concrete for foundations. For inspections, notify Traffic Signal/Streetlighting at (253) 591-5287.

The following existing and temporary equipment shall be deconstructed/removed by the Contractor and delivered to the City of Tacoma Signal/Streetlight Shop located at 3401A South Orchard Street. Care shall be exercised in removing and salvaging the equipment. Any equipment damaged during removal, hauling, and stockpiling shall be repaired or replaced by the Contractor at no expense to the City.

- Locking junction box security lids, security bolts, and all other wire theft deterrent security hardware

All other equipment shall be removed of and disposed of by the Contractor, including but not limited to the following:

- Wood poles
- All wiring outside of the controller cabinet

8-20.3(6) Junction Boxes, Cable Vaults, and Pull boxes

This section is supplemented with the following:

Unless otherwise specified in the plans, or as otherwise directed by the engineer, all junction boxes exposed to vehicular traffic shall be Heavy-Duty. Field adjustment of junction boxes, which cause junction boxes to be installed within an intersection radius and within four feet of the curb face may be required to be Heavy-Duty. Final placement and type of all junction boxes within an intersection shall be as directed by the Engineer.

Adjacent junction boxes shall be separated by a minimum of three-inches.

Concrete meeting the requirements of 6-02.3(2)B shall be placed surrounding all junction boxes except as otherwise provided for below. Concrete shall be flush with the
top of the junction box and the adjacent improvements. Concrete shall be cast in place.
Junction boxes shall be secured with the concrete border as follows:

1. When the junction box is located within a concrete or asphalt section and is
   located a minimum of 12-inches from the edge of the section, a concrete border
   will not be required.

2. Where junction boxes are located within 12-inches from the edge of the concrete
   or asphalt section, the junction box shall secured on all sides with a minimum 12-
   inch wide, 6-inch deep concrete section. Concrete shall be finished in the same
   manner as the adjacent concrete where applicable.

3. Where junction boxes are located within a planter strip, a landscaped area, or
   other non-hardened surface, the junction box shall be bordered on all sides with
   a minimum 6-inch wide, 12-inch deep concrete section flush with the top of the
   junction box.

When setting a new junction box on an existing streetlight circuit where no equipment
ground is present, a non-conductive junction box and lid shall be utilized.

8-20.3(7) Messenger Cable, Fittings
The second paragraph of this section is deleted.

This section is supplemented with the following:

- Cable ties shall be used to neatly secure the signal cable to the span wire at 10-inch
  centers and shall be tightened at top. Excess tie material shall be completely cut off.
- The signal control cable shall be below the span wire and shall be straight with no
  twisting or spiraling.

- A minimum 5% sag shall be provided in the span wire when fully loaded with all
  vehicular signal heads, unless otherwise directed by the Engineer.

8-20.3(8) Wiring
The third paragraph is revised to read:

- All splices in underground illumination circuits, induction loop circuits, and magnetometer
  circuits shall be installed at junction boxes. The only splice allowed in an induction loop
  circuit shall be the shielded cable to loop wire splice. The only splice allowed in a
  magnetometer circuit shall be the probe lead-in cable to the magnetometer cable splice.

- Induction loop splices and magnetometer splices shall be heat shrink type with moisture
  blocking material, sized for the conductors. Magnetometer and induction loop splices
  shall be soldered. The end of the sheathing shall be sealed with a heat shrink insulator.

The fourth paragraph is revised to read:

- Signal wiring shall be in conformance with the following:
  1. All termination for traffic signal control systems shall be in accordance with
  2. All signal wiring shall be 14 gauge 5-conductor or 12 gauge 2-conductor
     stranded copper wire unless otherwise shown in the plans.
3. For 5-section heads, 2-5c-14 gauge conductors shall be utilized.
4. 5c wire shall not be split between high voltage and low voltage. Where a pedestrian head and a pedestrian push button share a common pole, a separate 2c shall be pulled in for the push button.
5. A single 5c may be split between two pedestrian heads on a common pole with a jumper across the neutral.
6. Opticom and detection wiring shall be per manufacturer’s recommendations.

All wiring entering the cabinet shall be gathered across the conduits to the right front of the cabinet, neatly tied, and circle the base of the cabinet counterclockwise as further described below:

1. Communication cables shall circle the base of the cabinet, counterclockwise from front right, one full circle, and around to the back of the right panel. Cables shall follow up the back of the right panel and terminate on the terminal strip identified by the Engineer. Unless otherwise directed by the Engineer, cable outer jacket sheathing shall be removed from a point two (2) inches below the terminal strip. Cables shall be uniform in length, with sufficient slack to reach any terminal on the terminal strip. Individual wire slack shall be neatly looped back and tied. A bolt/flanged nut alligator jaw shield bond connector shall be utilized.

2. Power service conductors shall circle the base of the cabinet, counterclockwise from front right, one full circle, and back around to the front right of the base.

3. Detection cables shall circle the base of the cabinet, counterclockwise from front right, to the back of the left panel. Cables shall follow up the back of the left panel and terminate as directed in the field.

4. Signal vehicle and pedestrian head shall circle the base of the cabinet, counterclockwise from front right, to back left. Cable outer jacket sheathing shall be removed from the point that the conductor reaches the back left of the cabinet to the ends of the conductors. All vehicle and pedestrian conductors in the cabinets shall be uniform in length, with sufficient slack to reach any terminal on the load bay. Individual wire slack shall be neatly looped back and tied.

5. Push button conductors shall circle the base of the cabinet, counterclockwise from front right, to front left. Cable outer jacket sheathing shall be removed from the point that the conductor reaches the front left of the cabinet to the ends of the conductors. All push button conductors in the cabinets shall be uniform in length, with sufficient slack to reach any terminal on the terminal strip. Individual wire slack shall be neatly looped back and tied.

The fifth paragraph is revised to read:

Splices and taps on underground and overhead circuits shall be made with solderless crimp connectors, installed with an approved tool designed for the purpose, to securely join the wires both mechanically and electrically. Splices and taps will be sealed in accordance with this section.

The seventh paragraph is revised to read:
Aerial illumination splices shall be taped with thermoplastic electrical insulating tape equivalent to the original wire insulation rating and thickness. It shall be well lapped over the original insulation.

The eighth paragraph is revised to read:

All splices in junction boxes and handholes shall be taped and sealed with an electrical coating. Tape splice insulation shall consist of thermoplastic electrical insulating tape equivalent to the original wire insulation rating and thickness. It shall be well lapped over the original insulation and moisture resistant electrical coating shall be applied and allowed to dry. Two layers of thermoplastic tape will then be applied, followed by a second layer of moisture resistant electrical coating.

The ninth paragraph is revised to read:

Illumination cable in light standards shall be #10 AWG USE or “Pole and Bracket” cable, as specified in Section 9-29.3(2)D of the Standard Specifications.

The tenth paragraph is revised to read:

Fifteen (15) feet of slack cable shall be provided at the controller end of all cables terminating in the controller cabinet. A minimum of three (3) feet of slack cable shall be left at all strain poles and junction boxes.

8-20.4 Measurement

This section is supplemented with:

Removal, relocation, and replacement of junction boxes as noted in the Plans shall be per each.

8-20.5 Payment

This section is supplemented with:

“Remove and Replace Junction Box”, each

The unit Contract price for “Remove and Replace Junction Box” per each shall be full pay for the removal and replacement including but not limited to removal of existing junction box, furnishing of new Junction of similar size and type, unless otherwise specified in the Plans or by the Engineer, excavation, backfilling, conduit, wiring, restoring damaged or destroyed facilities during construction, salvaging of materials, and testing as required by this Section. All additional materials and labor, not shown in the Plans or called for herein and which are required to complete the electrical and signal system shall be included in unit Contract price.

“Remove and Relocate Junction Box”, each

The unit Contract price for “Remove and Relocate Junction Box” per each shall be full pay for the removal and relocation including but not limited to removal of existing junction box, furnishing of new Junction of similar size and type, unless otherwise specified in the Plans or by the Engineer, installation of new junction in a location specified in the Plans or as directed by the Engineer, excavation, backfilling, conduit,
wiring, extending conduit and wiring, pulling new conduit and wiring, restoring damaged or destroyed facilities during construction, salvaging of materials, and testing as required by this Section. All additional materials and labor, not shown in the Plans or called for herein and which are required to complete the electrical and signal system shall be included in unit Contract price.
8-21 PERMANENT SIGNING

8-21.1 Description

This section is supplemented with the following:

This Work also consists of providing, placing, maintaining temporary signage throughout the project, and removal of temporary signage at the completion of the project as detailed on the Plans. The location of the temporary signage is shown in the Plans.

END OF SECTION
8-22  PAVEMENT MARKING  
(April 1, 2018 Tacoma GSP)  

Materials used for curb paint shall be the same as for pavement marking paint per Section 9-34.2.  

8-22.2 Materials  
*This section is supplemented with the following:*  

All legends and arrows including “Plastic Traffic Arrow”, “Plastic Sharrow Symbol”, and “Plastic Traffic Letter” markings shall be a Preformed retro-reflective thermoplastic pavement marking material incorporating a pre-applied bead coating that can be adhered to asphalt, concrete and Portland Cement Concrete pavements by means of heat fusion. All “Plastic Chevron”, “Plastic Crosswalk Line”, and “Plastic Stop Line” shall be hot applied thermoplastic. The applied markings shall be very durable, oil and grease impervious, and provide immediate and continuing retro-reflectivity meeting the requirements of Section 9-34.3(2).  

Materials used for curb paint shall be the same as for pavement marking paint per Section 9-34.2.  

8-22.3 Construction Requirements  

8-22.3(3)E Installation  
*This section is supplemented with the following for applying Type B material:*  

**Effective Performance Life:** When properly applied, in accordance with manufacturer’s instructions, the preformed marking materials shall be neat and durable. The markings shall remain skid resistant and show no lifting, shrinkage, tearing, roll back, or other signs of poor adhesion.  

**Packaging:** The flexible preformed marking material, for use as transverse or bike symbols as well as legends, shall be available in flat form material up to a maximum of 2 foot width by 4 foot length. The material shall be packed in suitable cartons clearly labeled for ease of identifying the contents. Packaging shall not use plastic liners within to separate material from itself. Product packaging shall identify part number and mil thickness.  

**Material Replacement Provisions:** Any properly applied preformed marking materials that shall smear or soften independent of pavement movement or condition within a period of one year from date of application shall be replaced by the supplier.  

**Installation:** The preformed marking materials shall be applied in accordance with the manufacturer’s recommendations on clean and dry surfaces. New Portland concrete cement surfaces must be sandblasted to entirely remove curing compound. Marking configuration shall be in accordance with the “Manual on Uniform Traffic Control Devices,” where applicable.  

**New Surfaces:** Preformed marking materials specified for newly paved asphalt road surfaces shall be capable of being applied as the original permanent marking on the day the surface is paved.
**Fusion:** The preformed marking materials shall be fusible to the pavement by means of a propane torch recommended by the manufacturer.

**Technical Services:** The supplier shall provide technical services as may be required.

**8-22.3(3)F Application Thickness**
*The Section is supplemented with the following:*

**8-22.3(4) Tolerances for Lines**
*The allowable tolerance for “Length of Line” is revised to read:*

**Length of Line:** The longitudinal accumulative error within a 32-foot length of skip stripe shall not exceed plus or minus 1 inch.

**8-22.4 Measurement**
*The last sentence of the sixth paragraph is revised to read:*

Crosswalk lines will be measured by the linear foot of marking installed.

**8-22.5 Payment**
*This section is supplemented with the following:*

“Painted Crosswalk Line”, per linear foot.

“Plastic Crosswalk Line”, per linear foot.

“Remove Traffic Marking,” per each.

**END OF SECTION**
Add the following new section:

8-30 TRAFFIC CIRCLE
(******)

8-30.1 Description
This Work consists of installing Traffic Circles as shown in the details on the Plans.

8-30.2 Materials
Materials shall meet the requirements of the following sections:
- Cement 9-01
- Aggregates 9-03
- Premolded Joint Filler 9-04.1
- Corrosion Resistant Dowel Bars 9-07.5(2)
- Raised Pavement Marker 9-21
- Concrete Curing Materials and Admixtures 9-23
- Epoxy Resins 9-26

8-30.3 Construction
The Traffic Circles shall be constructed as detailed in the Plans. The locations for the Traffic Circles are shown in the Plans.

8-30.4 Measurement
Traffic Circles shall be measured per each traffic circle installed.

8-30.5 Payment
“Traffic Circle” per each.

The unit Contract price per each for “Traffic Circle” shall be full pay for a material, labor, time necessary to install the Traffic Circle as detailed in the Plans. This includes but is not limited to all topsoil, compaction, curb, raised pavement markers, dowels, and all other items shown in the detail on the Plans or as directed by the Engineer.

END OF SECTION
9-03 AGGREGATES
(******)

9-03.1 Aggregates for Concrete

9-03.1(1) General Requirements
The seventh paragraph is deleted

9-03.8 Aggregates for Hot Mix Asphalt
Supplement section 9-03.8 with the following:

9-03.8(1)1 Aggregates for Porous Hot Mix Asphalt/Porous Warm Mix Asphalt (PHMA/PWMA)
General Requirements

Aggregates for Porous Hot Mix Asphalt (PHMA) or Porous Warm Mix Asphalt (PWMA) shall be manufactured from ledge rock, talus, or gravel, in accordance with the provisions of Section 3-01 that meet the following test requirements:

Los Angeles Wear, 500 Rev. 30% max.
Degradation Factor 15 min.

9-03.8(3)C Grading Aggregates for PHMA/PWMA
Aggregates for PHMA/PWMA shall meet the following requirements for grading:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾” square</td>
<td>100</td>
</tr>
<tr>
<td>½” square</td>
<td>90 - 100</td>
</tr>
<tr>
<td>⅜” square</td>
<td>55 - 90</td>
</tr>
<tr>
<td>U.S. No. 4</td>
<td>10 - 40</td>
</tr>
<tr>
<td>U.S. No. 8</td>
<td>0 - 20</td>
</tr>
<tr>
<td>U.S No. 40</td>
<td>0 - 13</td>
</tr>
<tr>
<td>U.S. No. 200</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

* All percentages are by weight.

The aggregate for PHMA/PWMA shall consist of crushed stone with a percent fracture greater than 90% on two faces on the No. 4 sieve and above, and shall be tested in accordance with the field operating procedures for AASHTO T 335.

9-03.8(3)C1 Admixture for Hot Mix Asphalt and Porous Asphalt

FORTA-FI® Reinforcing Fibers:

- High tensile strength synthetic aramid fiber blend specially formulated to reinforce hot mix asphalt.

- Fiber reinforced asphalt concrete (FRAC) has greater resistance to rutting, thermal cracking, fatigue cracking, and reflective cracking as compared to conventional non-fiber asphalt mixes.
FORTA-Fi® Reinforcing Fibers:

1. Provide a reinforcing fiber blend of virgin polyolefins and virgin aramids that meets the following requirements:

<table>
<thead>
<tr>
<th>Reinforcing Fiber Material Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property</td>
</tr>
<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Form</td>
</tr>
<tr>
<td>Nominal Specific Gravity</td>
</tr>
<tr>
<td>Tensile Strength¹ (psi)</td>
</tr>
<tr>
<td>Maximum Length (in)</td>
</tr>
</tbody>
</table>

1. ASTM D7269, Standard Test Method for Tensile Testing of Aramid Yarns
2. Polyolefin fibers will melt or become plastically deformed during production

2. FORTA-Fi® ¾” HMA blend manufactured by Forta Corporation is an acceptable product to use.

3. If an alternative reinforcing fiber product that is not a blend of aramid and polyolefin fibers is proposed for use on the project, follow submittal requirements in part 2 of section 5-04.3(7)A1 below.

9-03.9(2) Permeable Ballast

Replace this section with the following:

Permeable ballast shall meet the following special requirements.

The grading and quality requirements are:

<table>
<thead>
<tr>
<th>AASHTO No. 3</th>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-1/2”</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>2”</td>
<td>90-100</td>
</tr>
<tr>
<td></td>
<td>1-1/2”</td>
<td>35-70</td>
</tr>
<tr>
<td></td>
<td>1”</td>
<td>0-15</td>
</tr>
<tr>
<td></td>
<td>1/2”</td>
<td>0-5</td>
</tr>
<tr>
<td></td>
<td>No. 100</td>
<td>0-3</td>
</tr>
<tr>
<td></td>
<td>% Fracture</td>
<td>95</td>
</tr>
</tbody>
</table>

The sand equivalent value and dust ratio requirements do not apply.

Los Angeles Wear, 500 Rev. 30% maximum
Degradation Factor 30 minimum

The fracture requirement shall be at least two (2) fractured faces and will apply to the combined aggregate retained on the No. 4 sieve in accordance with WSDOT FOP for AASHTO T 335.

The minimum void ratio of the aggregate shall be 30 percent as determined by AASHTO T 19.
Permeable ballast material may be conditionally approved based on Contractor submitted sampled materials prior to delivery to the site. Final Acceptance will be based on conformance testing completed on material that has been delivered, installed, and compacted on site. The exact point of acceptance will be determined by the Engineer. Material out of conformance with the project specifications will be removed and replaced at the Contractor’s expense.

Aggregates for permeable base shall meet the requirements for grading and quality when placed in hauling vehicles for delivery to the site, after placement in temporary stockpiles on site, during installation, and after installation and compaction.

Acceptance of aggregates shall be as provided under non-statistical evaluation.

The Contractor’s submittal for the aggregate material shall provide description of sampling methodology, identify where and how the sample was collected, total weight of sampled collected, description of sample preparation procedures, total weight of sample sieved to determine grain size distribution, and test results. Sampling and preparation shall be in conformance with ASTM D75 and ASTM C702.

**9-03.13 Backfill for Sand Drains**

*Add the following new section:*

**9-03.13(2) Filter Sand**

Filter Sand shall meet the following grading requirements:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4</td>
<td>95-100</td>
</tr>
<tr>
<td>#8</td>
<td>70-100</td>
</tr>
<tr>
<td>#16</td>
<td>40-90</td>
</tr>
<tr>
<td>#30</td>
<td>25-75</td>
</tr>
<tr>
<td>#50</td>
<td>2-25</td>
</tr>
<tr>
<td>#100</td>
<td>0-4</td>
</tr>
<tr>
<td>#200</td>
<td>0-2</td>
</tr>
</tbody>
</table>

All percentages are by weight.

**END OF SECTION**
9-28 SIGNING MATERIALS AND FABRICATION
(April 1, 2012 Tacoma GSP)

9-28.1 General
The second sentence of the first paragraph is hereby revised to read:

Permanent signs which measure 36 inches or less on a side and are to be mounted on a single post shall be constructed of single 0.080-inch aluminum panels.

The third sentence of the first paragraph is hereby revised to read:

Sign overlay panels shall be 0.050-inch aluminum panels.

9-28.9 Fiberglass Reinforced Plastic Signs
This section is deleted in its entirety.

END OF SECTION
CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
TACOMA WATER

SPECIFICATION NO. ES21-0004F

CONSTRUCTING WATER MAINS
in accordance with approved plans for

WATER MAIN REPLACEMENT PROJECT NO. MRP 2020-33

MADISON DISTRICT GREEN INFRASTRUCTURE PROJECT

S. 45th St. (from S. Union Ave. to S. Pine St.): S. Puget Sound Ave. (from S. 43rd St. to S 47th St.): S. Junett St. (from S 43rd St. to S 47th St.): S. Cedar St. (from S 43rd St. to S 45th St.)
CITY OF TACOMA
TACOMA PUBLIC UTILITIES
TACOMA WATER

SPECIAL PROVISIONS
FOR

SPECIFICATION ES21-0004F

MAIN REPLACEMENT PROJECT NO. MRP 2020-33, Madison District Green Infrastructure Project

IN

S. 45th St. (from S Union Ave. to S. Pine St.): S. Puget Sound Ave. (from S 43rd St. to S 47th St.): S. Junett St. (from S. 43rd St. to S 47th St.): S. Cedar St. (from S 43rd St. to S 45th St.)

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INTRODUCTION
April 1, 2021

The following special provisions shall be used in conjunction with the applicable sections of the 2020 M41-10 Washington State Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction and the American Water Works Association (AWWA) Standard Specifications. State Standard Specifications are available through WSDOT, by calling (360) 705-7430, or may be downloaded, free of charge, from this location on the WSDOT home page: www.wsdot.wa.gov/Publications/Manuals/M41-10.htm

These Special Provisions are applicable only to the water main replacement portion of the project.

DESCRIPTION OF WORK
(******)

The work to be performed under these Specifications consists of furnishing all labor, tools and materials for constructing approximately 4932 lineal feet of 12-inch, 2172 lineal feet of 8-inch and 460 lineal feet of 6-inch water mains together with all necessary valves, specials, etc., all in accordance with these specifications and approved plans.

All materials required for the connections to the 30" Steel main at stations 16+07 (sheet 10) and 10+68 (sheet 21) to be furnished by Tacoma Water.

The work is located in:

S. 45th St. (from S. Union Ave. to S. Pine St.): S. Puget Sound Ave. (from S. 43rd St. to S. 47th St.): S. Junett St. (from S. 43rd St. to S. 47th St.): S. Cedar St. (from S. 43rd St. to S. 45th St.)


This project is in conjunction with City of Tacoma Environmental Services Specification Number ES21-0004F, Madison District Green Infrastructure Project. All materials required and not listed herein to be furnished by Tacoma Water, shall be furnished by the Contractor. The modifications to the water distribution system shown on the Water Division Plans will be constructed as a part of this contract. These Special Provisions are applicable to water distribution work only and supersede any conflicting provisions that may appear elsewhere in the Contract Documents or Standard Specifications in regard to the water distribution main facility scope of work. Proposal items within the Tacoma Water section of the proposal are applicable to the water main scope of work only and shall not be construed to apply to other subsections of the Contract.

END OF SECTION
DEFINITIONS AND TERMS

1-01.2 Abbreviations

1-01.2(1) Associations and Miscellaneous
This section is supplemented with the following:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPRA</td>
<td>Ductile Iron Pipe Research Association</td>
</tr>
<tr>
<td>EWO</td>
<td>Extra Work Order</td>
</tr>
<tr>
<td>LOI</td>
<td>Letter of Instruction</td>
</tr>
<tr>
<td>MRP</td>
<td>Main Replacement Project/Program</td>
</tr>
<tr>
<td>NSF</td>
<td>National Sanitation Foundation</td>
</tr>
<tr>
<td>RFI</td>
<td>Request for Information</td>
</tr>
<tr>
<td>TPU</td>
<td>Tacoma Public Utilities</td>
</tr>
</tbody>
</table>

1-01.3 Definitions
This section is supplemented with the following:

**Contracting Agency**
Agency of Government that is responsible for the execution and administration of the contract to include: “City”, “City of Tacoma”, “Tacoma Public Utilities” and “Tacoma Water”.

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

END OF SECTION

1-03 AWARD AND EXECUTION OF THE CONTRACT

1-03.3 Execution of Contract
This section is supplemented with the following:

A Pre-construction meeting will be scheduled by Geff Yotter, Tacoma Water Construction Operations Manager following review by TPU Legal, Finance Department, Small Business Enterprise Office, for contracts over $500,000 approval by Contract and Awards Board, and the Tacoma Public Utility Board is required. The meeting agenda will cover contract compliance, safety and construction. The Contractor is encouraged to have representatives from his/her Sub-Contractors and their on-site forepersons in attendance. Contact Geff Yotter at (253) 502-8253 concerning questions.

In addition to the contract, the payment bond, the performance bond, insurance and other documentation that is required during the contract execution process the Contractor shall submit the following construction documents prior to, or at, the preconstruction meeting.

1. Approved Traffic Control Plan
2. Materials Submittals
1-03.5 Failure to Execute Contract

The first sentence is revised to read:

Failure to return the insurance certification and bonds 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 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

Second paragraph is revised to read:

Any inconsistency in the parts of the contract regarding the water main replacement portion of the project shall be resolved by the following order of precedence (e.g. 1 presiding over 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12; 2 presiding over 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12; and so forth):

1. Jurisdictional Right of Way Permits
2. Addenda
3. Proposal Form
5. Environmental Services Special Provisions
6. Contract Plans/Drawings
7. Standard Plans/Drawings
8. AWWA Standards
9. DIPRA Standards
11. Amendments to the Standard Specifications
12. Standard Specifications

END OF SECTION
1-05 CONTROL OF WORK

1-05.3 Plans and Drawings

This section is supplemented with the following:

Bidders can request one (1) full-size plan set by calling Todd Honey at (253)-502-8742. Full size plans are available to all bidders upon request. Copies of requested plans must be picked up by the bidder at Tacoma Water’s permit counter.

1-05.5 Vacant

This section, including heading, is revised to read:

1-05.5 Submittals

Submittals must be approved by Tacoma Water and may be forwarded directly to Craig West, Engineering Construction Coordinator, electronically at cwest@cityoftacoma.org, or mailed to 3628 S. 35th St., Tacoma, WA 98409-3192. (253) 405-8821.

Before any material is shipped or installed, the Contractor shall furnish to the Engineer full details, shop drawings, dimensions, catalog cuts, and other descriptive matter as required to fully describe the equipment proposed to be included in this contract. The names, addresses and phone numbers for the representative of each piece of equipment shall also be included.

Should any item which deviates from these Specifications be included, the deviation shall be clearly indicated and explained at the time of submittal.

The Contractor shall provide electronic copies of submittal information. Submittals shall be complete, neat, orderly, and indexed. The Contractor shall check submittals for number of copies, adequate identification, correctness, and compliance with the Plans and Specifications, and shall initial all copies. A copy of this Specification shall be included with the submittals. The Contractor shall revise and/or resubmit all submittal information until it is acceptable to the Engineer. After review, one set of submittals will be returned to the Contractor.

Review of submittal information by the Engineer shall not relieve the Contractor of responsibility for meeting the requirements of the Plans and Specifications, or for errors and omissions in submittals. Reviews by the City do not constitute an undertaking on the part of the City to assure or determine compliance with the Plans and Specifications.

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.

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-04</td>
<td>Temporary HMA</td>
</tr>
<tr>
<td>7-04, 7-17, 7-18</td>
<td>Storm, Sanitary, and Side Sewer Restoration</td>
</tr>
<tr>
<td>7-09</td>
<td>Concrete for Concrete Thrust Anchors</td>
</tr>
<tr>
<td>7-09</td>
<td>Pipe Submittals</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>7-09</td>
<td>Ductile Iron Fitting Submittals</td>
</tr>
<tr>
<td>7-09</td>
<td>8-mil thick V-Bio Enhanced Polyethylene Encasement</td>
</tr>
<tr>
<td>7-09</td>
<td>Trench Compaction</td>
</tr>
<tr>
<td>7-09</td>
<td>Temporary Blow-Offs</td>
</tr>
<tr>
<td>7-09</td>
<td>Transition Couplings</td>
</tr>
<tr>
<td>7-09</td>
<td>CDF Mix for Trench Dam</td>
</tr>
<tr>
<td>7-09.3</td>
<td>Sand for Pipe Bedding</td>
</tr>
<tr>
<td>7-12, 9-30.3(1)</td>
<td>Gate Valves</td>
</tr>
<tr>
<td>7-14</td>
<td>Fire Hydrants</td>
</tr>
<tr>
<td>8-01</td>
<td>Inlet Protection</td>
</tr>
<tr>
<td>8-01</td>
<td>Street Cleaning with Power Sweeper and Vacuum Equip.</td>
</tr>
<tr>
<td>9-03</td>
<td>Crushed Surfacing Top Course</td>
</tr>
<tr>
<td>7-12, 9-30.3</td>
<td>Butterfly Valves</td>
</tr>
<tr>
<td>9-30.2(6)</td>
<td>Mechanical Joint Restraining Gland</td>
</tr>
</tbody>
</table>

1-05.13(1) Emergency Contact List

This section is supplemented with the following:

Agencies and telephone numbers:

<table>
<thead>
<tr>
<th><strong>Tacoma Water Emergency</strong></th>
<th>253-502-8344</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troy Saghafi</td>
<td>Tacoma Water Project Engineer</td>
</tr>
<tr>
<td>Geff Yotter</td>
<td>Tacoma Water Construction Inspector Manager</td>
</tr>
<tr>
<td>Phil Ringrose</td>
<td>Tacoma Water Construction Manager</td>
</tr>
<tr>
<td>Craig West</td>
<td>Tacoma Water Engineering Const. Coordinator</td>
</tr>
<tr>
<td>Todd Honey</td>
<td>Tacoma Water Utilities Serv. Spec.</td>
</tr>
<tr>
<td>Tacoma Water Distribution LID/Engineering fax</td>
<td>253-502-8694</td>
</tr>
<tr>
<td>Seth Gottlieb</td>
<td>Environmental Services Project Engineer</td>
</tr>
<tr>
<td>Utilities Underground Location Center</td>
<td>800-424-5555</td>
</tr>
<tr>
<td>Washington State Dept. of Labor and Industries</td>
<td>253-596-3895</td>
</tr>
<tr>
<td>James Southern</td>
<td>Tacoma Water Safety Office</td>
</tr>
<tr>
<td>Pierce Transit</td>
<td>253-581-8021</td>
</tr>
<tr>
<td>Puget Sound Energy-Gas</td>
<td>888-225-5773</td>
</tr>
<tr>
<td>Century Link Communications</td>
<td>800-573-1311</td>
</tr>
<tr>
<td>Tacoma Traffic Engineering</td>
<td>253-591-5500</td>
</tr>
<tr>
<td>Tacoma Fire Dept. (non-emergency)</td>
<td>253-591-5733</td>
</tr>
<tr>
<td>Tacoma Police Dept. (non-emergency)</td>
<td>253-591-5950</td>
</tr>
<tr>
<td>LESA Communications Center (opt. #1)</td>
<td>253-798-4721</td>
</tr>
<tr>
<td>Tacoma Public Schools Transportation Office</td>
<td>253-571-1893</td>
</tr>
<tr>
<td>Tacoma Public Works Solid Waste</td>
<td>253-591-5544</td>
</tr>
<tr>
<td>Tacoma Public Works Engineering Division</td>
<td>253-591-5500</td>
</tr>
<tr>
<td>Tacoma Public Works Streets and Grounds</td>
<td>253-591-5495</td>
</tr>
</tbody>
</table>

END OF SECTION

1-06 CONTROL OF MATERIAL
1-06.4 Handling and Storing Materials
This section is supplemented with the following:

The Contractor shall obtain written approval for the storage site from property owner and provide a copy to Geff Yotter, Tacoma Water Construction Operations Manager, prior to start of construction. No gravel, topsoil, mulch, or any other item used in the construction of this project shall be stockpiled on existing or newly constructed streets or sidewalks. All costs to provide a stockpile site shall be incidental to the cost of the contract.

END OF SECTION

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.6 Permits and Licenses
This section is supplemented with the following:

The Right of Way Construction permit may be obtained at the City of Tacoma Planning and Development Services Department, 3rd Floor, 747 Market St, Tacoma (253-591-5030). The Contractor shall provide approximate lineal feet and specification number to the permit personnel. A copy of the permit shall be provided to Tacoma Water as part of the submittals.

Traffic control plans shall be submitted to Tacoma Public Works, Traffic Engineering, room 520, 747 Market St, Tacoma, (253) 591-5275, for review and comment. When using the WSDOT Standard “K” Plans, the street names are to be listed on the plans with construction start date and intended working hours.

Water used during construction can be obtained from an approved Tacoma Water fire hydrant. The Contractor will be billed for the water used and shall pay for a “Hydrant Use Permit” and make a deposit on the water meter. The Contractor shall contact the Water Permit Counter at (253) 502-8247, for information regarding water consumption fees, Hydrant Use Permit fees, meter deposits and approved Tacoma Water hydrant locations. Permit fees and deposits shall be paid prior to using an approved Tacoma Water hydrant.

1-07.16(2) Vegetation Protection and Restoration
This section is supplemented with the following:

Care shall be taken when directed by the Field Inspector to save existing landscaping and trees. The Contractor shall remove any unnecessary debris and rocks and leave landscaping areas in a prepared fashion. Any necessary landscape restoration resulting from water main construction shall be completed by Tacoma Public Utility landscape crews.

1-07.16(4) Archaeological and Historical Objects
This section is supplemented with the following:

Whenever the Contractor identifies a situation during water main construction that may involve the discovery of unanticipated cultural resources, the Contractor will
immediately cease work and notify the City Inspector. Situations involving the discovery of unanticipated cultural resources include but are not limited to human skeletal remains, Anthropogenic soil horizons (areas showing the influence of humans on nature), occupational surfaces (areas showing evidence of human activity or habitation), midden (dunghill or refuse heap), stone tools or waste flakes (arrowheads or stone chips), bones, burned rocks, other food related material in association with stones tools or flakes, cluster of cans or bottles, tunnels, or logging or agricultural equipment more than 50 years old. The Contractor will take all steps necessary to protect and secure the suspected cultural resource until the City Inspector is able to assess the discovery and determine whether work can resume. Delays of greater than one hour will be considered standby time and will be compensated. If a significant delay is anticipated, the Inspector may direct the Contractor to temporarily abandon the excavation and move to a more distant location to resume work until the situation can be addressed. Tacoma Water will take responsibility for contacting the appropriate state and local agencies.

1-07.18 Public Liability and Property Damage Insurance
This section is deleted in its entirety:

1-07.23 Public Convenience and Safety

1-07.23(1) Construction Under Traffic
This section is supplemented with the following:

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

The Contractor shall prepare a traffic control plan (TCP) and submit to Tacoma Public Works, Traffic Engineering, room 520, 747 Market St, Tacoma, (253) 591-5275, for review and comment per 1-10.2(1)A. The approved traffic control plan must be on site and accessible for inspection at all times by local law enforcement or inspectors. An approved copy of the traffic control plan shall be submitted to Geff Yotter, Tacoma Water’s Construction Operations Manager, prior to start of construction.

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.

A flagger shall not be used to direct traffic flow 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. In some situations, the local Traffic Engineer may turn the signal to an all way stop for flagger control. Prior approval must be obtained from the local Traffic Engineer.

The Contractor may close non-arterial streets to through traffic, if allowed in the approved traffic control plan, provided that local access is maintained at all times with a minimum of a 20-foot wide access lane. The Contractor shall coordinate any closures and cooperate with the various businesses and/or residences adjacent to the project site. A minimum of one access shall be maintained to all properties at all times.
Whenever, during the course of construction, it becomes necessary because of the nature of the work, for the Contractor to barricade any street or any part thereof, or to place any obstruction which will impede the flow of traffic in any public thoroughfare within and outside the project area, then the Contractor will be required to give notice of the intended interruption to traffic, setting forth the period and necessity.

The Contractor shall coordinate with the Traffic Engineer of the local jurisdiction on all matters pertaining to the movement of vehicular and pedestrian traffic past the project area.

Any permits required for obstruction or closure of thoroughfares shall be obtained by the Contractor, incidental to Contract.

The Contractor shall at all times exercise adequate precautions for the safety of all persons, including employees, in the performance of this contract and shall comply with all applicable provisions of federal, state, county and municipal safety laws and regulations.

Tacoma Water’s Inspector and/or Engineer may advise the Contractor and the Public Utilities Safety Officer of any safety violations. It is the Contractor’s responsibility to correct the violation. Failure to correct safety violations shall be grounds for a cease order from the Public Utilities Safety Officer, Engineer, or Inspector. Time and wages lost due to such safety shutdowns shall be at the sole cost of the Contractor. Time lost due to cease orders for safety violations will still be counted in the required number of days the Contractor has to complete the contract.

Any of the above actions by employees of the City of Tacoma shall in no way relieve the Contractor of his/her sole responsibility to provide the safety of all persons, including his/her employees.

1-08 PROSECUTION AND PROGRESS

1-08.3 Progress Schedule
This section is supplemented with the following:

The Contract shall be completed in phases to allow Tacoma Water crews access to begin the service transfer process. All costs for phasing the work and completing the work as specified shall be included in the various bid items of the proposal.

Each phase of this project will be tested, sampled, flushed and put into service in segments. This will allow Tacoma Water crews to start service transfers within that segment immediately following successful testing, sampling and flushing on that segment. The Tacoma Water inspector will coordinate test sections and connections, to insure customers are kept in service and fire protection is not diminished. The Contractor shall be required to make connections and install hydrants as sampled sections become available and services are transferred; not wait until all mainline is constructed.

Please note; Service transfer work by Tacoma Water will not commence until such time as the section of water main has been placed into service and the trench has
been successfully backfilled, as demonstrated through receipt of successful compaction test results for that portion of water main to be placed in service.

Due to the high number or water services that Tacoma Water will be required to transfer, it is anticipated that the Contractor will have to begin with water main work at either S. Puget Sound Avenue, or S. Cedar Street, or both. This work may also run concurrently with additional crews that are working on other utilities so long as it does not impede the water mains being installed with priority so as to allow both Tacoma Water and the Contractor ample time to complete the project within the specified time for completion. This work will require substantial coordination with Tacoma Water. See Section 7-15 for Tacoma Water coordination requirements and the anticipated number of service connections made per working day by Tacoma Water crews for water service transfers.

**END OF SECTION**

1-09 MEASUREMENT AND PAYMENT

1-09.6 Force Account

*This section is supplemented with the following:*

Tacoma Water has estimated the cost of the bid item for “Force Account” and has entered the amount in the bid proposal to become a part of the total bid by the Contractor. It is for the purpose of providing a common proposal for all bidders and for that purpose only.

**END OF SECTION**

1-10 TEMPORARY TRAFFIC CONTROL

1-10.2(1)A Traffic Control Management

*This section is supplemented with the following:*

Traffic control plans (TCP) shall be submitted to Tacoma Public Works, Traffic Engineering, room 520, 747 Market St, Tacoma, (253) 591-5275, for review and comment. When using the WSDOT Standard “K” Plans, the street names are to be listed on the plans with construction start date, the intended working hours and the project number.

When any road closure, lane closure, flagger operation, or sidewalk closure occurs, the Contractor shall refer to “The Traffic Control Handbook” for requirements; located at:


1-10.4 Measurement

1-10.4(1) Lump Sum Bid for Project (No Unit Items)

*This section is supplemented with the following:
Project Temporary traffic control labor for the water main replacement portion of this contract is per lump sum.

1-10.5 Payment
This section is supplemented with the following:

"Project Temporary traffic control labor for the water main replacement portion of this contract", lump sum.

The lump sum bid price for “Project Temporary traffic control labor for the water main replacement portion of this contract” will include all labor, materials, signs, barricades, flaggers, spotters, uniform police officers, etc. for all phases of construction. TCS labor is incidental to the contract.

END OF SECTION

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.2(2) Disposal Method No. 2 – Waste Site
This section is supplemented with the following:

All excess material from this contract, disposed at sites within the City of Tacoma, shall be placed in accordance with Ordinance No. 26310 - Section 2.02.330 EXCAVATION AND GRADING Amendment to Appendix Chapter 33 of the 1997 UNIFORM BUILDING CODE. Excess material disposed outside the limits of the City of Tacoma shall be placed in accordance with all applicable state, county and municipal regulations.

All costs associated with wasting the excess material, as required above, shall be included in the contract.

END OF SECTION

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.3 Construction Requirements
This section is supplemented with the following:

As indicated on the plans or as directed by the Engineer all old pipe (except wood stave and Asbestos Cement pipe and Steel main), valves, hydrants and fittings salvaged from replaced pipe lines shall be delivered by the Contractor to the Water Storeroom at South 35th and Union Avenue (Tacoma, WA) at no additional cost. Otherwise haul and disposal will be incidental to the contract. Abandoned mains left in place shall be plugged as directed by construction inspector. There are sections of existing 30-inch steel water mains abandoned by this contract that shall be removed to allow for the installation of the new water mains. All cost for removal, cutting, loading and transport of 30-inch steel water mains shall be included in the unit contract bid price.

Salvage methods shall be used which will save all material intact and undamaged.
2-02.3(1) Removal, cutting, loading and transport of 30-inch steel main  
_This section is revised to read:_

Removal, cutting, loading and transport of existing 30-inch steel main associated with the water main installation includes all thicknesses. No additional compensation shall be made for varying thicknesses.

All costs for the removal, cutting, loading and transport of existing 30-inch steel main associated with the water main installation shall be included in the unit contract bid price. See 7-14.4 and 7-14.5 for measurement and payment.

2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters  
_This section is revised to read:_

Removal and disposal of existing pavement, sidewalks, curbs, and gutters associated with the water main installation includes all combinations and thicknesses. No additional compensation shall be made for varying combinations and thicknesses.

All costs for the removal and disposal of existing concrete curb, sidewalk, driveways, and alley approaches for the water main or related appurtenances shall be included in the unit contract bid price.

Any slurry generated by saw cutting shall be collected by a wet-vacuum and kept out of the storm sewer system. The Contractor shall not violate the requirement of WSDOT Standard Specifications, 2020 M 41-10, and section 1-07.5 (Fish and Wildlife and Ecology Regulations).

2-02.4 Measurement  
_This section is revised to read:_

Measurement for Removal and disposal of existing pavement, sidewalks, curbs, and gutters associated with the water main installation will be made by the square yard.

No measurement for removal and reclaiming salvaged material shall be made and shall be considered incidental to the contract.

2-02.5 Payment  
_This section is revised to read:_

“Removal and disposal of existing pavement, sidewalks, curbs, and gutters includes all thicknesses & combinations”, per square yard.

“Removal and disposal of existing pavement, sidewalks, curbs, and gutters, includes all thicknesses & combinations”, shall include all costs for saw cutting, wheel trenching, hydro hammering, chipping, grinding, etc., the existing street for main construction and hydrant laterals. The wheel trencher may be used for the thicker initial cuts for main/hydrant installation. Additional cuts to square up the permanent patch for
Concrete base and asphalt concrete will be made after trenching and pouring the concrete base, respectively, when applicable, and will encompass areas disturbed by service transfers. All costs for additional cuts shall be included in the unit contract bid price.

END OF SECTION

2-13 CONTROL AND MANAGEMENT OF CONTAMINATED MATERIALS

This section is added with the following:

2-13.1 Construction Requirements

2-13.1(1) General

Whenever the Contractor identifies a situation that may involve contaminated/hazardous wastes, the Contractor will immediately cease work and notify the City Inspector. Situations involving contaminated/hazardous wastes may be identified by uncharacteristic odors, soil appearance, texture, containers such as drums or cans, and color. The inspector will seek the assistance of TPU environmental professionals to determine the next course of action. The Contractor will take all steps necessary to protect personnel until all risks are identified and safe work can resume. Delays of greater than one hour will be considered standby time and will be compensated under the Force Account. If significant risks or contaminated/hazardous wastes are encountered requiring significant delays, the inspector may direct the Contractor to temporarily abandon the excavation and move to a more distant location to resume work until the situation can be addressed. Tacoma Water will take responsibility for sampling, testing and identification of proper disposal of all hazardous wastes.

A determination for method of disposal will be made upon receipt of sampling results. Excavated spoils will be the responsibility of the Contractor for proper disposal. All hazardous waste must be disposed in an appropriately licensed solid waste facility. The Contractor must identify the facility they will utilize prior to beginning work.

Transport and Disposal of Contaminated/Hazardous Waste includes all costs for the excavation, transportation and disposal of all excavated material which must be disposed in a solid waste landfill. Payment per ton will be determined by the actual weight delivered to the permitted landfill, which must be listed on the scale ticket from the landfill. The original weight ticket from the landfill must be delivered to the inspector or provided with invoice for payment.

There are no estimated numbers for this item, but the cost will be applied if any waste is encountered. This item is not considered for calculation of the total bid amount. Any costs under this item will be covered under the Force Account item or Change Order.

END OF SECTION
5-04 HOT MIX ASPHALT

5-04.2 Materials
This section is supplemented with the following:

If utilized, the amount of Recycled Asphalt Pavement (RAP) shall not exceed 10-percent of the total weight of the Hot Mix Asphalt (HMA).

Tack Coat
All coatings for tack coat shall be considered as incidental to and included in the unit contract price for HMA.

5-04.3 Construction Requirements
This section is supplemented with the following:

In areas with existing pavement, a minimum of two (2) inches of HMA shall be placed and maintained as temporary surfacing in open cut areas of streets, driveways and sidewalks disturbed during water main construction. Temporary HMA paving shall be done so that, in areas with existing pavement, the entire pavement cut will receive a temporary patch by the conclusion of the day’s work to allow resumption of normal traffic patterns. Temporary paving shall be placed such that it will hold up to heavy traffic for an extended period of time. All paving shall be saw-cut or neat spade prior to excavation. Any additional Temporary HMA needed for driveway approach cuts shall be incidental to the contract. Temporary driveway approach patch shall match grade of existing driveway approach.

The Contractor shall maintain a temporary patch while Tacoma Water personnel renew the services and transfer them to the new main, after which he/she shall start with additional street repairs. The Contractor shall make permanent street repairs for all pavement disturbed by Tacoma Water personnel during service renewal/transfer at the unit price bid in the Proposal for those items.

The Contractor shall inform himself/herself of Tacoma Public Works requirements for surface repairs and adjustment of facilities. All manhole rings and valve boxes shall be removed/lowered prior to paving and set to grade after final HMA paving per dwg. SU-25 or dwg 17-56-1, incidental to contract.

The Contractor shall confine his/her operations as much as possible, such that there is minimal damage to existing pavement.

It shall be the Contractor's responsibility to protect the edge of the paved roadway at all times. The expense for pavement repairs beyond the neat line of the trench due to over-excavation or damage to the roadway edge caused by heavy equipment, spoil cleanup or other operations of the Contractor shall be the responsibility of the Contractor.

No permanent street repairs will be made until the services are transferred to the new main. The removal of trench backfill for permanent street repairs will be incidental to the bid, including additional areas disturbed during the service transfers.
5-04.4 Measurement
This section is supplemented with the following:

Temporary HMA Class ____ PG____, _____-inch minimum depth, installed & removed will be measured by the surface square yardage.

HMA Cl. _____ PG______, will be measured by the ton. Copies of the weigh tickets shall be given to the Construction Inspector daily.

5-04.5 Payment
This section is replaced in its entirety with the following:

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

“Temporary HMA Cl____ PG_____, ___-inch minimum depth, installed & removed”, per square yard.

The unit contract price per square yard for “Temporary HMA Cl____ PG_____, ___-inch minimum depth, installed & removed” shall be full compensation for all costs including mobilization, preparation, placement, compaction, maintenance and removal in preparation for permanent street repairs.

“HMA Cl. ____ PG _____”, per ton.

The unit contract price per ton for “HMA Cl. ____ PG _____” shall be full compensation for all costs incurred for mobilization, preparation, trimming, grinding, pre-leveling, hot mix asphalt pavement, sweeping, tack coat, joint sealing, saw-cutting, pavement compaction tests and fog seal in accordance with plan details, City of Tacoma Standard Plans, and WSDOT Standard Specifications, 2020, M41-10, section 5-04. All manhole rings and valve boxes shall be removed/lowered prior to paving and set to grade after final HMA paving per dwg. SU-25 or dwg 17-56-1, incidental to contract.

END OF SECTION

7-04 STORM SEWERS

7-04.3 Construction Requirements
This section is supplemented with the following:

Storm sewers may be encountered at various locations throughout this project. Prior to the start of the storm sewer repair, the Inspector and/or Contractor shall notify the Inspector. C900 PVC, Ductile Iron or 3034 PVC may be used on storm line repairs. The repair of the storm sewer shall be made three feet outside of the water main trench. No additional compensation shall be made for the extended connection and material. Mechanical couplings (Romac or equivalent) shall be installed at both ends of the storm sewer restoration forming a rigid connection between the new and existing pipe. Rigid PVC slip couplings for PVC pipe and Romac mechanical style for concrete pipe only. Repair/replacement/restoration will be at the inspector’s discretion and the local jurisdiction.
7-04.4 Measurement
This section is revised in its entirety with the following:

Storm sewer repair will be measured per each.

7-04.5 Payment
This section is revised in its entirety with the following:

“Storm, Sanitary, and Side Sewer Restoration”, per each.

“Storm, Sanitary, and Side Sewer Restoration”, includes any work and materials required to remove and replace storm, sanitary, and side sewers shall be included in the bid item. This is a per each bid item that includes all costs but is not limited to pipe, fittings, pea gravel, labor, and equipment, etc. to repair sewers.

END OF SECTION

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.3(2) Remove Existing Supply Main Manholes
This section is revised to read:

Where it is required that an existing manhole be removed, the structure shall be broken down, removed, and hauled. The voided area occupied by the structure shall be backfilled with crushed surface top coarse specified in section 9-03.9(3) and compacted in maximum 6" lifts to 95% of maximum density. The ring and cover shall be salvaged and all other surplus material disposed of.

Supply Main Vent Pipe Removal:

- Excavate, Remove and dispose of vent pipe as required and as directed in the Field by the Tacoma Water Inspector.
- Excavate, Remove and dispose of existing elbows, nipples and cap, as required and as directed by the Tacoma Water Inspector.

7-05.4 Measurement
This section is revised in its entirety with the following:

“Excavate, Remove and dispose of existing Valve Chamber” will be measured per Lump Sum

“Excavate, Remove and dispose of existing Air Vent” will be measured per Lump Sum.

7-05.5 Payment
This section is revised in its entirety with the following:
"Excavate, Remove and Dispose of existing Valve Chamber", per Lump Sum.

"Excavate, Remove and Dispose of Existing Valve Chamber", per Lump Sum, includes any work and materials required to remove the existing Valve Chamber, shall be included in the bid item. This is a per Lump Sum bid item that includes all costs but is not limited to labor, and equipment, etc. to remove the existing Valve Chamber.

“Excavate, Remove and Dispose of existing Air Vent”, per Lump Sum.

“Excavate, Remove and Dispose of existing Air Vent”, per Lump Sum, includes any work and materials required to remove the existing Air Vent, shall be included in the bid item. This is a per Lump Sum bid item that includes all costs but is not limited to labor, and equipment, etc. to remove the existing Air Vent.

END OF SECTION

7-09 WATER MAINS

7-09.1 Description
The first paragraph is revised to read:

This work consists of constructing water mains 12-inch in diameter and smaller in accordance with the Tacoma Water Plans, these Special Provisions, the Standard Specifications and the Standard Plans, at the location shown on the Tacoma Water Plans.

This section is supplemented with the following:

All pipe, fittings, valves, hydrants and other materials to be installed and placed under these specifications are intended to form a durable section of the distribution system of ample strength and capacity for the operating pressures in the area covered for domestic, commercial and fire protection uses and must be completed in condition to supply potable water of the highest sanitary quality. All material must be selected and the work planned and carried out to accomplish this purpose.

The cost of any item of work to be completed or materials to be furnished on the contract drawings or stated in the project specifications and having no special bid item in the Proposal, shall be considered included in the various bid items of the contract and no separate payment will be made. All materials required and not specifically listed herein to be furnished by Tacoma Water shall be furnished by the Contractor.

Any part of work not specifically covered by these specifications shall be in accordance with the American Water Works Association (AWWA) Standard Specifications and the Ductile Iron Pipe Research Association (DIPRA).

7-09.1(1)C Gravel Backfill for Pipe Zone Bedding
This section is supplemented with the following:
To avoid puncturing or tearing of the polyethylene sleeve, Contractor shall install a clean washed sand encasement (Pipe Zone Bedding) 6-inches below designed grade of the pipe, trench width, to 6-inches above top of pipe, and a minimum of 6-inches of pipe zone bedding on each side of pipe. Note, the profile shows the invert elevation of the pipe, not the bottom of the trench. The sand used for “Pipe Zone Bedding” shall meet the requirements of Section 9-03.1(2), Class 2 as described in 2020 WSDOT Standard Specifications.

The “Pipe Zone Bedding” sand shall be compacted by water settling and/or mechanical equipment. The remaining trench section shall be compacted with mechanical equipment to the standards as specified in “7-09.3(11) Compaction of Backfill”.

7-09.1(1)D Pipe Zone Backfill
This section is revised to read:

Aggregates for the trench section above the “Pipe Zone Bedding” will conform to the requirements for Trench Backfill 7-09.1(1) E.

7-09.2 Aggregate Materials
Under the heading Aggregates:
“Gravel Backfill for Pipe Zone Bedding 9-03.12(3)” is revised to read:

Gravel Backfill for Pipe Zone Bedding 9-03.1(2)B, Class 2.

“Trench Backfill 9-03.15 or 9-03.19” is revised to read:

Trench Backfill 9-03.9(3), Top Course

This section is supplemented with the following:

All materials shall conform to American Water Works Association (AWWA) and the Ductile Iron Pipe Research Association (DIPRA). No recycled material shall be used for water main trench backfill.

7-09.3 Construction Requirements

7-09.3(1) General
This section is supplemented with the following:

Trench Excavation shall be loaded directly onto trucks. Trench Excavation shall not be stockpiled along the trench or on paved streets, driveways, and sidewalks.

Alignment and grade stakes will be provided by Tacoma Water. The Contractor shall provide a minimum of 5 days working days’ notice for staking by Tacoma Water. Request for survey shall be made through Geff Yotter, Tacoma Water Construction Operations Manager, (253) 502-8253. The Contractor shall use a string line to maintain true grade, and alignment between stakes. Use of electronic leveling devices for grade and alignment shall be at the discretion of the Inspector where string line is impractical.
7-09.3(1) A Trench Foundation
This section is added with the following:

Trench areas found to be inadequate for a solid pipe line trench foundation shall be over excavated and quarry spalls shall be placed until an adequate foundation is accomplished then sand bedding. Note, the profile shows theinvert elevation of the pipe, not the bottom of the trench.

7-09.3(5) Grade and Alignment
The first sentence of the third paragraph is revised to read:

The depth of trenching for water mains shall be such as to give a minimum cover of 52 inches over the top of pipe unless otherwise specified on the Tacoma Water Plans, within these Special Provisions, or approved by the Engineer.

7-09.3(6) Existing Utilities
This section is supplemented with the following:

The lump sum bid item for of “Test Holes” is for the purpose of pre-determining and resolving conflicts with existing utilities and is required to be completed prior to the water main installation. Proper test holes cannot be accomplished until utility “one call” locates have established and maintained. The selection of methods materials or equipment used for test holes is at the discretion of the Contractor. No additional compensation will be made for any particular or specialized equipment or technique utilized by the Contractor. The work shall include all techniques as necessary to field verify and locate all existing utilities, whether shown on the plans or located via one call utility locates, at all new main crossings. Test-hole excavation shall be done in the presence of the Construction Inspector. Test-hole data shall be provided to the inspector prior to main construction and adequate time given to the engineer to re-design if necessary. If the elevation/alignment of the existing utilities is in conflict with the new main installation, the elevation/alignment design will be adjusted by the engineer/inspector.

Additional compensation for any extra excavation required will be made to the Contractor through Extra Trench Excavation and Disposal item as supplemented in these Special Provisions.

Sanitary side sewers and storm catch basin laterals that are unmarked or not locatable and are damaged during water main construction will be repaired and/or replaced as necessary. Prior to the start of the repair, the Inspector and/or Contractor shall notify agency responsible for system and make repairs to their standards and make the repair available for the agency’s inspection if required or requested. Repair/replacement/restoration will be at the inspector’s discretion and in accordance with sections 7-04, 7-17, 7-18 and the Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-8 and C1-9.

7-09.3(7) Trench Excavation
The third sentence of the second paragraph of this section is revised to read:

The minimum trench width shall be the nominal pipe diameter plus 16 inches. The maximum trench width shall not exceed 30-inches, or 1.5 times the outside diameter
of the pipe plus 18-inches, whichever is greater, unless otherwise approved by the Engineer to allow for proper construction of the pipeline, fittings and other appurtenances.

This section is supplemented with the following:

When shown on plans or as directed by the Engineer, the Contractor shall install trench dams on water main per standard plan SU-33.

7-09.3(7)A Dewatering of Trench
This section is supplemented with the following:

The Contractor is responsible for having proper and operational equipment for dewatering. The Contractor will have operational de-watering equipment on site prior to main shutdown. The cost of all labor, equipment and materials for de-watering shall be included in the various bid items of the contract. No additional compensation will be made for dewatering.

The Contractor is responsible for keeping excavations free from water during construction and disposing of the water in a manner that will not cause injury to public or private property, or to cause a nuisance or a menace to the public. The Contractor shall maintain dry working conditions at all times and under all conditions. Groundwater flowing toward or into excavations shall be controlled to prevent sloughing of excavation walls, boils, uplift, and heave in the excavation, and to eliminate interference with orderly progress of construction. While the excavation is open, the water level shall continuously be maintained at least two (2) feet below the working level. The control of groundwater shall be such that softening of the bottom of excavations, or formation of “quick” conditions or “boils” during excavation, shall not occur. The Contractor is responsible for all foundation material required due to lack of dewatering efforts.

All costs associated with dewatering and discharge to the sanitary sewer shall be incidental to Trench Excavation and Disposal, Section 7-09.3(8) of these specifications.

7-09.3(7)C Extra Trench Excavation
The 4th paragraph of this section is revised to read:

Additional excavations, as directed by the inspector shall be classified as Extra Trench Excavation and Disposal.

7-09.3(8) Removal and Replacement of Unsuitable Materials
This section heading is revised to read:

7-09.3(8) Trench Excavation and Disposal
This section is supplemented with the following:

Unless specified elsewhere in the plans or special provisions the scope of this Contract shall include the export and disposal of 100% of all excavated materials and the import of 100% of all trench backfill material.
7-09.3(9) Bedding the Pipe
The first sentence of the first paragraph is revised to read:

When installing Polyethylene encasement on ductile iron pipe, to avoid puncturing or tearing of the polyethylene sleeve, a clean washed sand encasement 6-inches below designed grade of the pipe, trench width, to 6-inches above top of pipe shall be installed. Note, the profile shows the invert elevation of the pipe, not the bottom of the trench. The sand bedding around the pipe shall be compacted by water settling and/or mechanical equipment. The remaining trench section shall be compacted with mechanical equipment to the standards as specified in “7-09.3(11) Compaction of Backfill”. The sand used for “Pipe Zone Bedding” shall meet the requirements of Section 9-03.1(2)B, Class 2 as described in 2020 WSDOT Standard Specifications.

7-09.3(10) Backfilling Trenches
This section is supplemented with the following:

For the trench section above the “Pipe Zone Bedding”, unless otherwise specified, Tacoma Water will require full depth Crushed Surfacing Top Course (CSTC), for trench backfill and compacted in accordance with the 2020 WSDOT Standard Specifications. The Contractor will be required to provide a current proctor of material for compaction testing. Compaction testing will be paid under a separate bid item.

CSTC shall also be placed in areas of existing rock surfacing disrupted by the water main construction and in any other areas where directed by the inspector, and rolled with a power roller.

7-09.3(11) Compaction of Backfill
This section is revised to read:

Backfill, shall be compacted to at least 95-percent of maximum density and tested using methods as specified in Section 2-03.3(14)D.

At locations where paved streets, roadway shoulders, driveways, or sidewalks will be constructed or reconstructed over the trench, the backfill shall be spread in layers and compacted by mechanical tampers. In such cases, the backfill material shall be placed in successive layers not exceeding 12-inches in loose thickness (or as specified in City of Tacoma Standard Plan SU-28, whichever is less), and each layer shall be compacted with mechanical tampers to the density specified herein. Mechanical tampers shall be of the impact type as approved by the Engineer.

Compaction test locations shall be at 150 linear foot intervals, with a minimum of two compaction test locations per trench, or as directed by the Engineer. The Contractor shall perform compaction testing each day main is installed.

At each compaction test location, compaction tests shall be taken on each compacted layer, starting 18-inches above the pipe and finishing at the final ground surface. Each layer shall be compacted to 95% modified proctor density, as verified by compaction testing, before proceeding to place and compact the next layer. Compaction testing will be performed by a licensed testing company with trained personnel in the presence of the Tacoma Water Construction Inspector. Passing test will be based on a
current proctor of material used. Costs incurred for any proctor test, and failed compaction tests, are the responsibility of the Contractor.

Service transfer work by Tacoma Water will not commence until such time as the trench has been successfully backfilled, as demonstrated through receipt of successful compaction test results for that portion of water main to be placed in service.

7-09.3(12) General Pipe Installation
The first sentence of the first paragraph is revised to read:

Pipe shall be installed in accordance with the manufacturer’s printed specifications and instructions, and to the standards of the AWWA and DIPRA for installing the type of pipe used.

7-09.3(14) Cutting Pipe
This section is supplemented with the following:

Short lengths of field cut pipe used for bell and spigot joints shall have a bevel of 30° from center and ¼” from the end.

7-09.3(16) Cleaning and Assembling Joint
This section is supplemented with the following:

Only food-grade pipe lubricant as specified by the pipe manufacturer for potable water shall be used on joints. It shall be delivered to the job in closed containers and shall be kept clean. Pipe lubricant shall be in accordance with AWWA C111/A21.11-95 paragraph. 4.4.4, and NSF/ANSI Standard 61, latest edition.

7-09.3(17) Laying Ductile Iron Pipe with Polyethylene Encasement
This section is supplemented with the following:

Where noted on the plans and as per the Engineer, the water main, fittings, valves, laterals, and appurtenances shall be encased with a minimum 8-mil thick V-Bio Enhanced Polyethylene Encasement, as supplied by the United States Pipe and Foundry Company, the American Cast Iron Pipe company, the Pacific States Cast Iron Pipe Company, or approved equal. Polyethylene encasement for use with ductile iron pipe systems shall consist of three layers of co-extruded linear low density polyethylene (LLDPE), fused into a single thickness of not less than eight mils. The inside surface of the polyethylene wrap to be in contact with the pipe exterior shall be infused with a blend of antimicrobial compound to mitigate microbiologically influenced corrosion and volatile corrosion inhibitor to control galvanic corrosion.

The Polyethylene Encasement shall be installed in accordance with Ductile Iron Pipe Research Association (DIPRA) and American Water Works Association (AWWA) C105 section A21.5 and the following recommended method:

The pipe shall be raised about 3 feet above the ground at the side of the trench using either pipe tongs or a sling. The polyethylene sleeve cut approximately 2 feet longer than the length of the pipe, is slipped over the spigot end of the pipe and bunched up accordion fashion between the end of the pipe and the sling. The pipe is lowered into the trench and joined with adjacent installed pipe in the normal manner with a shallow
bell hole to facilitate the wrapping of the joint. The sling is removed from the center of the pipe and hooked into the bell cavity. The bell is raised 3 to 4 inches and the polyethylene sleeve is slipped along the full length of the pipe barrel leaving enough sleeve at each end of the pipe to overlap the adjoining pipe about one foot. The sleeve is then pulled over the bell of the pipe, folded around the adjacent pipe barrel and wrapped with two circumferential turns of the 2-inch wide polyethylene adhesive tape to seal the sleeve to the pipe. The sleeve on the adjacent pipe is then pulled over the first wrap on the pipe bell and sealed in place behind the bell using two circumferential turns of the 2-inch wide polyethylene adhesive tape to complete the joint seal. The resulting loose wrap on the barrel of the pipe is pulled snugly around the barrel of the pipe, the excess material folded over the top, and the fold is held in place by means of short strips of the adhesive tape at intervals of about 3 feet along the pipe barrel.

Where valves, tees or other fittings are installed, the sleeve shall be cut to provide an overlap of about one foot and shall be slit and taped as required to provide openings for the branch lines, hydrant laterals (which shall also be encased in polyethylene) or gate valve bonnets. All pipe, fittings, valves and hydrants shall be encased in a polyethylene sleeve.

All punctures, tears or other damage to the polyethylene sleeve shall be repaired with additional polyethylene material and/or polyethylene adhesive tape to restore full protection to the water main to the satisfaction of the Tacoma Water Construction Inspector.

7-09.3(19)A Connections to Existing Mains
This section is supplemented with the following:

When connecting new mains to existing, the Contractor shall swab out all new material that will go into immediate service with a chlorine solution prior to installation. When shutdowns for connection are required, the Contractor will coordinate and schedule with the inspector, a minimum of three working days prior to the scheduled time of shutdown, to allow 48-hour notification to all customers. Cancellations of the shutdown by the Contractor after customer notification is made may result in a charge to the Contractor for re-notification.

The Contractor is advised that existing valves used to shut down mains for connections are subject to leakage due to age and condition. The Contractor shall be prepared to deal with up to 5 gallons per minute of water from leaking valves encountered. No additional compensation will be made.

The Contractor is advised that only Tacoma Water crews may operate system valves.

The existing pipe shall be kept clean and free of debris as much as possible.

Coordination is an important part of this project so proper notification for shutdowns is necessary, such that they can be scheduled without causing delays to the Contractor or unanticipated interruption of service to Tacoma Water customers.

7-09.3(19)B Maintaining Service
This section is supplemented with the following:
Tacoma Water will furnish all labor and materials necessary to provide temporary (hi-line) mains and services when necessary or as determined by the Construction Inspector. The Contractor may have some down time waiting for services to be hi-lined. No extra compensation will be made to the Contractor for down time due to work by City forces. No time will be charged towards the contract’s time of completion while services are transferred.

Where existing services are to be transferred from old to new mains, the work of the Contractor shall be so planned and coordinated with that of Tacoma Water that consumers will be shut off as briefly as possible.

7-09.3(21) Concrete Thrust Blocking  
The first paragraph is supplemented with the following:

Concrete thrust blocking shall conform to Standard Drawing 17-56-1, with concrete having a minimum compressive strength of 3,000 psi at 28 days. Concrete used for thrust blocking on mains eight inch and smaller may meet the requirements of 6-02.3(4)B Jobsite Mixing. Temporary thrust blocking may be revised or altered as approved by the Tacoma Water Construction Inspector.

7-09.3(23) Hydrostatic Pressure Test  
Paragraph 13 is deleted:

This section is supplemented with the following:

Testing will only be accomplished with the approval and in the presence of the Tacoma Water Construction Inspector. The Tacoma Water Construction Inspector will provide a set of pressure gauges. Testing will conform to DIPRA standards.

7-09.3(23)A Testing Extensions From Existing Mains  
This section is supplemented with the following:

Testing will only be accomplished with the approval and in the presence of the Tacoma Water Construction Inspector. The Tacoma Water Construction Inspector will provide a set of pressure gauges. Testing will conform to DIPRA standards.

7-09.3(23)B Testing Section with Hydrants Installed  
This section is supplemented with the following:

Testing will only be accomplished with the approval and in the presence of the Tacoma Water Construction Inspector. The Tacoma Water Construction Inspector will provide a set of pressure gauges. Testing will conform to DIPRA standards.

7-09.3(24)A Flushing  
This section is revised to read:

In laying mains, care shall be taken to insure that the interior of the pipe is kept free of foreign matter or trench water. Upon completion of construction, the line shall be filled slowly under the direction of the construction inspector and a pressure test conducted.
Sections of pipe to be disinfected shall first be flushed to remove any solids or contaminated material that may have become lodged in the pipe. If a hydrant is not installed at the end of the main, then a tap shall be provided large enough to develop a flow velocity of at least 2.5 feet per second in the water main.

Tacoma Water crews will flush, sample, and de-chlorinate newly installed water mains. The Contractor is advised that only Tacoma Water crews shall operate system valves.

Water for testing and sterilizing will be furnished without charge to the Contractor at such points as may be designated by the Inspector, in such quantities and at such times as will not interfere with service to Tacoma Water customers.

**7-09.3(24)K Retention Period Flushing**  
*This section is revised to read:*

The chlorinated water resulting from the initial filling shall be retained in the line for a period of not less than 24 hours. After this period the chlorine residual at the pipe extremities and at other representative points shall be at least 25 p.p.m. After which Tacoma Water will remove the chlorinated water and thoroughly flush the line. Tacoma Water shall take initial bacterial test samples of water flowing in the line upon completion of the flushing.

A second set of bacterial test samples will be taken after a 24-hour retention period of the water remaining in the pipe after the initial flushing. Should the samples not test free of E coli and zero coli-form bacteria, the line shall be re-disinfected and re-flushed, at the expense of the Contractor, until two successive satisfactory samples are obtained.

Forty-eight hours is the minimum time required by the bacteriological laboratory to process samples.

**7-09.3(24)N Final Flushing and Testing**  
*The second paragraph is deleted:*

*This section is supplemented with the following*

The Tacoma Water Construction Inspector will determine location of sample stations and coordinate with Tacoma Water crews for installation. Corporation stops with copper pipe stubs will be installed by Tacoma Water crews at selected points along the pipeline for use as sampling stations and points to release air, and apply test pressure.

The sampling stations will be removed by Tacoma Water crews after bacterial tests and pressure tests are completed unless the station will be used for a new water service lateral. Installation and removal of sample stations will be coordinated with the Contractor. The water main Contractor shall complete any excavation required for installation and/or removal of the sample stations. The cost of all labor, equipment and materials involved in the installation and removal of sample stations shall be included in the various bid items of the contract.
Unless specified on Contract Plans, Tacoma Water will furnish all labor and materials necessary to provide new services or to transfer present services to the new mains and to provide the required taps for testing and sterilizing.

Water for testing and sterilizing will be furnished without charge to the Contractor at such points as may be designated by the Inspector, in such quantities and at such times as will not interfere with service.

7-09.4 Measurement
The ninth paragraph is revised to read:

Trench shoring: The measurement of shoring will be by the linear foot of pipe laid and shall be measured along the pipe through fittings, valves and couplings. The single lineal foot measurement will be for both sides of the trench that is shored. Over-excavation to bypass the use of shoring/shielding is not considered a safety system and no payment will be made. Any extra quantities materials (pavement removal and replacement, trench excavation and disposal, trench backfill) attributed to over-excavation will not be paid for by Tacoma Water. Shoring/shielding requirements will be in accordance with WISHA standards and the 2020 M41-10 Washington State Department of Transportation Standard Specifications Section 7-09.3(7).

This section is supplemented with the following:

The unit prices bid in the Proposal shall include all the accessories, gaskets, follower glands, nuts, bolts, etc., necessary to complete the project on the approved plans.

Extra Trench Excavation and Disposal: Measurement of Extra Trench Excavation and Disposal as defined in Section 7-09.3(7)C will be measured by the cubic yard of material removed as measured by the Engineer. The depth shall be the actual depth removed for the changed line or grade in accordance with Section 7-09.3(5) or as ordered by the Engineer in accordance with Section 1-04.4. The width shall be the actual width removed for the changed line or grade, but in no case shall the measured width exceed the allowable widths specified in Section 7-09.3(7). This bid item shall also include the corresponding amount of CSTC and Gravel Backfill for Pipe Zone Bedding, as applicable, installed and compacted, for trench backfill.

“____-inch Ductile Iron Pipe, ____ Joint, ANSI/AWWA, C151, Special Thickness Class No. 52, installed (various sizes): Measurement for water mains will be by the linear foot measured along the pipe less fittings, valves and couplings.

Mechanical Joint Fittings and couplings (various sizes and combinations): Measurement for fittings and couplings shall be per each.

_____ -inch Blow-Off Assembly, installed: Measurement for this item will be per each.

_____ -inch Steel sleeve, (butt straps) installed: Measurement for this item will be per each.
-inch Steel FLNG x PE, installed: Measurement for this item will be per each.

-inch Steel MJ x FLNG adapter, installed: Measurement for this item will be per each.

-inch Ductile Iron reducers PE x PE, installed: Measurement for this item will be per each.

-inch Ductile Iron reducers LEB, installed: Measurement for this item will be per each.

-inch Flange isolation kit, installed: Measurement for this item will be per each.

Temporary -inch Blow-Off Assembly, installed and removed: Measurement for this item will be per each.

-inch Mechanical Joint Restraining Glands (various sizes): Measurement for these items will be per each.

Push-On Joint Restraining Gaskets (various sizes): Measurement for these items will be per each.

-inch Transition couplings with -inch center ring, coating, and bolts, to (various sizes): Measurement for these items will be per each.

-inch End Cap Couplings, tapped -inch with -inch center ring, coating, & bolts (various sizes): Measurement for these items will be per each.

-inch steel main: removal, cutting, loading and transport: Measurement for these items will be per linear foot.

Concrete Thrust Anchor, installed: Measurement for this item will be per each.

Concrete Thrust Anchor with Hair Pins and min. one CY Concrete, installed: Measurement for this item will be per each.

Temporary Thrust Anchor, installed, install and remove: Measurement for this item will be per each. The use of blocking/preformed structures will be at the discretion of the inspector.

Crushed Surfacing Top Course (CSTC) for shoulder restoration as directed by Tacoma Water Inspector: Measurement for this item shall be per ton. It is the Contractor’s responsibility to provide gravel tickets to Tacoma Water’s inspector daily as materials are delivered.
Trench Compaction Test (as directed by the inspector), shall be per each for passing compaction test as per section 7-09.3(11). Test will be performed by a licensed testing facility with trained personnel in the presence of the Tacoma Water Construction Inspector. Passing test will be based on a current proctor of material used. Costs incurred for any proctor test and failing compaction test are responsibility of the Contractor.

Test Holes: No unit of measurement shall apply to the lump sum price for Test Holes.

Trench Dam: Measurement for this item will be per each.

Force Account: The item shall conform to Section 1-09.6 of the Standard Specifications.

“_____–inch x _____inch Tapping Sleeve, installed”. Measurement for this item shall be per each.

7-09.5 Payment
This section is revised to read:

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

“Trench shoring”, per linear foot.

The single lineal foot measurement will be full pay for both sides of the trench that is shored. Over-excavation to bypass the use of a shoring/shielding is not considered a safety system and no payment will be made.

“_____–inch Ductile Iron Pipe, (Push-On Joint/mechanical joint), ANSI/AWWA, C151, Special Thickness Class No. 52, to furnish, lay and test” per linear foot.

The unit contract price per linear foot for each size “_____–inch Ductile Iron Pipe, (Push-On Joint/mechanical joint), ANSI/AWWA, C151, Special Thickness Class No. 52, to furnish, lay and test” shall be full pay for all labor and materials to complete the installation of the water main including but not limited to furnishing, laying, jointing pipe, gaskets, gland/bolt kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter pipe, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, compaction of trench backfill, pressure testing, flushing, disinfecting the pipeline and cleanup. Note, the Compaction testing of trench backfill shall be paid by bid item “Trench Compaction Test (as directed by the Engineer)”.

Payment for restoration will be made under the applicable items shown in the Proposal. If no pay items for restoration are included in the Proposal, restoration shall be considered incidental to the work of constructing the water main, and all costs thereof shall be included in the unit contract price for “_____–inch Ductile Iron Pipe, (Push-On Joint/mechanical joint), ANSI/AWWA, C151, Special Thickness Class No. 52, to furnish, lay and test”.
“Extra Trench Excavation and Disposal” per Cubic Yard

The unit contract price for “Extra Trench Excavation and Disposal” shall be full pay for extra trench excavation and disposal as defined in Section 7-09.3(7)C and will be measured by the cubic yard of material removed. This bid item shall also include the corresponding amount of CSTC, Gravel Backfill Pipe Zone Bedding, as applicable, installed and compacted, for trench backfill.

The unit contract price for “Crushed Surfacing Top Course (CSTC) per section 9-03.9(3) of the _____ WSDOT Standard Specifications, for shoulder restoration as directed by Tacoma Water Inspector”, shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item including delivery, spreading, compacting and rolling

“_____ -inch Ductile Iron Reducer, _____ M.J. with concrete anchor, (dwg.17-56-1) installed”, per each.

The unit contract price for “_____ -inch Ductile Iron Reducer, _____ M.J. with concrete anchor, (dwg.17-56-1) installed”, shall be full pay for all labor, equipment and materials required for furnishing and installing these items including concrete anchor, gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill.

“_____ -inch Ductile Iron Reducer, _____ PE x PE, installed”, per each.

The unit contract price for “_____ -inch Ductile Iron Reducer, _____ installed” shall be full pay for all labor, equipment and materials required for installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill. Does not include procuring actual water product which will be provided by contracting agency.

“_____ -inch Ductile Iron Reducer, _____ LEB, installed”, per each.

The unit contract price for “_____ -inch Ductile Iron Reducer, _____ installed” shall be full pay for all labor, equipment and materials required for installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill. Does not include procuring actual water product which will be provided by contracting agency.
“____-inch Ductile Adapter, ____ MJ x FLNG, installed”, per each.

The unit contract price for “____-inch Ductile Iron Reducer, ____ installed” shall be full pay for all labor, equipment and materials required for installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill. **Does not include procuring actual water product which will be provided by contracting agency,**

“____-inch Steel flange, ____ FLNG x PE installed”, per each.

The unit contract price for “____-inch Steel Flange x PE, ____ installed” shall be full pay for all labor, equipment and materials required for installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill. **Does not include procuring actual water product which will be provided by contracting agency,**

“____-inch Steel sleeve, (butt straps) ____ installed”, per each.

The unit contract price for “____-inch Steel Sleeve, ____ installed” shall be full pay for all labor, equipment and materials required for installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill. **Does not include procuring actual water product which will be provided by contracting agency,**

“____-inch Flange isolation kit, ____ installed”, per each.

The unit contract price for “____-inch Flange isolation kit, ____ installed” shall be full pay for all labor, equipment and materials required for installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter reducer, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding, and compaction of Trench backfill and pipe zone backfill. **Does not include procuring actual water product which will be provided by contracting agency,**
“____-inch Ductile Iron (fitting), M.J. _____ installed”, per each.

The unit contract price for “____-inch Ductile Iron (fitting), M.J. _____ installed” shall be full pay for all labor, equipment and materials required for furnishing and installing these items including gaskets and gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter fitting, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“____-inch Ductile Iron (cap/plug), M.J., tapped _____-inch, installed & removed”, per each.

The unit contract price for “____-inch Ductile Iron (cap/plug), M.J., tapped _____-inch, installed & removed” shall be full pay for all labor, equipment and materials required for furnishing, installing and removing these items including gaskets gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter cap/plug, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“____-inch Ductile Iron (Cap/plug), M.J., tapped _____-inch, installed”, per each.

The unit contract price for “____-inch Ductile Iron (Cap/plug), M.J., tapped _____-inch, installed” shall be full pay for all labor, equipment and materials required for furnishing, and installing these items including gaskets gland/bolts kits, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter cap/plug, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“____-inch Transition Coupling with ____-inch center ring, ____coating, and _____ bolts, ____ to D.I.”, per each.

The unit contract price for “____-inch Transition Coupling with ____-inch center ring, ____coating, and _____ bolts, ____ to D.I.”, shall be full pay for all labor, equipment and materials required for furnishing and installing these items, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter coupling, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“____-inch End Cap Coupling tapped ____-inch, with ____inch center ring, ____coating, and ____bolts,” per each.

The unit contract price for “____-inch End Cap Coupling tapped ____-inch, with ____inch center ring, ____coating, and ____bolts,” shall be full pay for all labor, equipment and materials required for furnishing and installing these items, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter coupling, Trench Excavation and Disposal, Crushed Surfacing
Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“Temporary ____-inch End Cap Coupling tapped ____-inch, with ____ inch center ring, ____ coating, and ____ bolts, installed and removed,” per each.

The unit contract price for “Temporary ____-inch End Cap Coupling tapped ____-inch, with ____ inch center ring, ____ coating, and ____ bolts, installed and removed,” shall be full pay for all labor, equipment and materials required for furnishing, installing and removing these items, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter coupling, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

The unit contract price for “Removal, cutting, loading and transport of existing 30-inch steel main includes all thicknesses”, per linear foot.

“Removal, cutting, loading and transport of existing 30-inch steel main includes all thicknesses”, shall include all costs for removal, cutting, handling, stockpiling, loading, and transport of the existing 30-inch steel main. All costs for additional cuts, varying thicknesses, and material shall be included in the unit contract bid price. Disposal fees to be paid by Tacoma Water. Salvage rights will be Tacoma Waters.

“____-inch Blow-Off Assembly, installed”, per each.

The unit contract price bid per each for “____-inch Blow-Off Assembly, installed” shall be full pay for all work to install the blow-off assembly per drawing 17-56-1, including but not limited to excavating, backfilling, laying and jointing pipe, pipe and fittings, valve box, meter box, and cleanup. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box.

“Temporary ____-inch Blow-Off Assembly, installed & removed”, per each.

The unit contract price bid per each for “Temporary ____-inch Blow-Off Assembly, installed & removed” shall be full pay for all work to install the blow-off assembly per dwg. 17-56-1, including but not limited to excavating, backfilling, laying and jointing pipe, pipe and fittings, gate valve, meter box, cleanup and removal.

“____-inch Mechanical Joint Restraining Gland, installed”, per each.

The unit contract price for “____-inch Mechanical Joint Restraining Gland, installed”, shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item.

“____-inch Push-On Joint Restraining Gasket, installed”, per each.

The unit contract price for “____-inch Push-On Joint Restraining Gasket, installed”, shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item.
“Concrete Thrust Anchor, installed”, per each.

The unit contract price for “Concrete Thrust Anchor, installed” shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of trench backfill.

“Temporary Concrete Thrust Anchor, installed & removed”, per each.

The unit contract price for “Temporary Concrete Thrust Anchor, installed & removed”, shall be full pay for all labor, equipment and materials required for furnishing, installing and removing the specified item, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of trench backfill.

“Trench Compaction Test (as directed by the inspector)”, per each.

The unit contract price for “Trench Compaction Test (as directed by the inspector)”, shall be for passing compaction test as per section 7-09.3(11), by a licensed company in the presence of Tacoma Water Construction Inspector, and shall be measured per each passed test.

“Trench Dam”, per each.

The unit contract price for “Trench Dam” shall be full pay for all labor and materials required to install trench dams on water main as directed by Engineer or as shown on approved plans, per City of Tacoma Standard Plan SU-33. Bid item shall include furnishing and installing polyethylene sleeve on main, as well as furnishing and installing CDF, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, and compaction of trench backfill.

“Test Holes”, per lump sum.

The lump sum contract price for “Test Holes” shall be full pay for all labor, equipment and materials required to perform the specified excavations including all flagging required to field verify existing utilities, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, and compaction of trench backfill. Progress payment will be made based on the percentage completion of the total work encompassed within the lump sum item.

“____-inch x ____inch Tapping Sleeve, installed”. per each.

The unit contract price for “____-inch x ____inch Tapping Sleeve, installed” shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter sleeves, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe and compaction of trench backfill.
7-10 VACANT
This section including heading is revised to read:

7-10 Casing Pipe for Water Main, Sewer, or Side Sewer

7-10.1 Description

When the inspector determines it is necessary for the new water main to be installed beneath an existing sanitary sewer or side sewer, at the direction of the inspector both the new water main and the sanitary sewer or side sewer shall be installed within a casing pipe extending a minimum of 10 feet either side of the crossing. See detail on plan sheet.

7-10.2 Material

7-10.2(1) Casing Pipe

In each location where a casing pipe is necessary, the casing pipe shall be a continuous 20 foot length of ____” PVC Pipe, AWWA C900, DR-25.

The following table lists the water main, sewer, or side sewer sizes and their corresponding casing size:

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Casing Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” DI</td>
<td>12”</td>
</tr>
<tr>
<td>8” DI</td>
<td>14”</td>
</tr>
<tr>
<td>12” DI</td>
<td>18”</td>
</tr>
</tbody>
</table>

7-10.2(2) Casing Spacers

Casing spacers shall be a minimum of 8-inches wide and shall be fabricated with runner heights to provide a standard carrier pipe configuration. The spacers shall be constructed of a coated steel band with 2-inch glass reinforced plastic runners. The casing spacers shall be Model C8G-2 as manufactured by Pipeline Seal and Insulator (PSI) Company, Inc. or approved equal. The contractor shall be responsible for sizing insulators to provide required clearance of pipe bells and to properly fit the carrier pipe.

7-10.2(3) End Seals

The end seals shall be rubber seals with stainless steel straps and shall be Model W by Pipeline Seal and Insulator (PSI) Company, Inc. or approved equal.

7-10.4 Measurement

Measurement for ____-inch PVC Casing Pipe, AWWA C900/C905, DR-25, 20-foot minimum length, including end seals and casing spacers shall be per each, installed on water main, sanitary sewer, or side sewer.
7-10.5 Payment

“_____ -inch PVC Casing Pipe, AWWA C900/C905, DR-25, 20-foot minimum length, including end seals and casing spacers”, per each.

The unit contract price for “_____ -inch PVC Casing Pipe, AWWA C900/C905, DR-25, 20-foot minimum length, including end seals and casing spacers” shall be full pay for all labor, equipment and materials to provide a fully functional casing pipe in place as shown on the plans. The item shall include all costs for installing and assembling all components necessary to install water main, sanitary sewer, or side sewer, within casing pipe to the line and grade shown in the plans. Costs for Trench excavation and Backfill, CSTC for trench backfill, and compaction of trench backfill, to install the casing pipe shall be included in the unit contract price for this item.

END OF SECTION

7-12 VALVES FOR WATER MAINS

7-12.2 Materials
This material list in this section is supplemented with the following:

Check Valves 9-30.3(2)

7-12.4 Measurement
This section is supplemented with the following:

Measurement for _____ -inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box, will be per each.

Measurement for _____ - inch Butterfly Valve, M.J., ANSI/AWWA, C504, with C.I. Valve Box, will be per each

Measurement for _____ - inch Butterfly Valve, FLG x M.J., ANSI/AWWA, C504, with C.I. Valve Box, will be per each

Measurement for _____ -inch Tapping Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box, will be per each.

7-12.5 Payment
This section is supplemented with the following:

“_____ -inch Gate Valve, M.J., ANSI/AWWA, C-509/515, with C.I. Valve Box”, per each.

The unit bid price for “_____ -inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box, installed, per each”, shall be full pay for all labor, equipment and materials required to furnish and install this item. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter valves, Trench Excavation and
Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“_____-inch Butterfly Valve, M.J., ANSI/AWWA, C504, with C.I. Valve Box, per each.

The unit bid price for “_____-inch Butterfly Valve, M.J., ANSI/AWWA, C504, with C.I. Valve Box” shall be full pay for all labor, equipment and materials required to furnish and install valve. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter valves, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

The unit bid price for “_____-inch Butterfly Valve, FLG x M.J., ANSI/AWWA, C504, with C.I. Valve Box” shall be full pay for all labor, equipment and materials required to furnish and install valve. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter valves, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

“_____-inch Tapping Gate Valve, M.J., ANSI/AWWA, C509/C515, with C.I. Valve Box”, per each.

The unit contract price for “_____-inch Tapping Gate Valve, M.J., ANSI/AWWA, C509/C515, with C.I. Valve Box, in place” shall be full pay for all labor, equipment and materials required for furnishing, installing and tapping. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around various diameter valves, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill.

END OF SECTION

7-14 HYDRANTS

7-14.3(1) Setting Hydrants
*The second paragraph is revised to read:*

All hydrants shall be set on concrete blocks as shown on standard detail 17-56-1. The hydrant barrel drain shall waste into a pit of porous gravel material meeting specification 9-03.12(5), and situated at the base of the hydrant as shown on standard detail 17-56-1.
Hydrant installation will conform to AWWA and DIPRA standards, and drawing 17-56-1. No barrel extensions will be approved for new installations. The Contractor is responsible for ensuring the proper bury of hydrant for grade is installed.

**7-14.3(2)A Hydrant Restraints**

This section is supplemented with the following:

Only approved restraining glands will be installed for hydrant restraints, unless shackle rods are specified. No poured concrete thrust block will be placed on the back side of the fire hydrants. If the hydrant lateral is longer than one full length of pipe, either mechanical joint (MJ) pipe, approved push-on joint restraining gaskets or a ductile iron solid sleeve with restraining glands will be installed to ensure correct location and restraint of hydrant.

**7-14.3(2)C Hydrant Guard Posts**

This section is supplemented with the following:

Guard posts will be installed as per drawing 17-56-1.

**7-14.3(4) Moving Existing Hydrants**

This section is supplemented with the following:

The Engineer and/or Inspector will determine if the existing hydrant lateral tee will be removed and replaced with new pipe or plugged, depending on type of pipe and joint.

**7-14.3(6) Hydrant Extensions**

This section is revised to read:

No hydrant barrel extensions are approved on new installations.

**7-14.3(7) Removing Abandoned Hydrants**

This section is added with the following:

The Contractor shall remove existing abandoned fire hydrants which were taken out of service by this project or as noted to be removed on plans. Abandoned fire hydrants shall be removed at the foot, laterals plugged and fire hydrants delivered to the Tacoma Water Storeroom at South 35th Street and Union Avenue. All labor and equipment costs are incidental to the contract.

**7-14.4 Measurement**

This section is supplemented with the following:

Measurement of hydrants will be made per each, per bury length.

Measurement of Hydrant Guard Post installed per standard drawing 17-56-1, will be made per each.

**7-14.5 Payment**

This section is supplemented with the following:
“6-inch Hydrant, M.J., ____-ft. bury, with ____-inch _______ Threads & ____-inch Quick Connect Coupling”, per each.

The unit bid price for “6-inch Hydrant, M.J., ____-ft. bury, with ____-inch __________ Threads & ___-inch Quick Connect Coupling”, shall be full pay for all labor, equipment and materials required for furnishing and installing the hydrant including drain rock and hydrant block, as well as the labor and materials for installing 8 mil. V-Bio Enhanced Polyethylene Encasement around hydrant, Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, Gravel Backfill for Pipe Zone Bedding of polyethylene encased pipe, and compaction of Trench backfill and pipe zone backfill. Restraining glands,______ gaskets, lateral pipe, tee, and valve will be paid under separate bid items.

“Hydrant Guard Post installed”, per each.

The unit bid price for “Hydrant Guard Post installed”, shall be full pay for all labor, equipment and materials required to fabricate and install hydrant guard post per drawing 17-56-1 and as directed by Tacoma Water Construction Inspector.

END OF SECTION

7-15 SERVICE CONNECTIONS
This section is supplemented with the following:

There are 278 water service transfers throughout the project, but this number may increase in construction due to developments. Water service transfers are the responsibility of Tacoma Water.

At the time of advertisement, there were
- 211 services at ¾” diameter
- 51 services at 1” diameter
- 5 services at 1.5” diameter
- 11 services at 2” diameter

Contractor is responsible for coordinating with Tacoma Water and their crew lead(s). Within 72 hours of the Pre-Construction meeting, the Contractor will hold a coordination meeting with Environmental Services and Tacoma Water. The Contractor will provide a map with a phasing plan, a schedule of Contractor and Water’s crews to show the water service progression. Meetings will occur bi-weekly and are the responsibility of the Contractor to schedule.

Tacoma Water will commence with service transfers following the successful completion of testing and sampling the new water main. The Contractor shall anticipate down time waiting for Tacoma Water crews to complete service transfers. For water services 1” and smaller, the Contractor shall anticipate three service transfers per working day for Tacoma Water crews to complete service transfers. For water services 1.5 to 2 inches, the Contractor shall anticipate two service transfers per working day for Tacoma Water crews to complete service transfers. For water services larger than 2-inches, the Contractor shall anticipate one service per one and one half working days for Tacoma Water crews to complete service transfers. All costs shall be included in the various bid items in the proposal and no extra compensation will be made to the
Contractor for down time due to work by City forces. No time will be charged towards the contract's time of completion while services are being transferred. Tacoma Water will provide the number of services it anticipates to install over a two-week period at each bi-weekly meeting.

Please note; service transfer work by Tacoma Water will not commence until such time as the section of water main has been placed into service and the trench has been successfully backfilled, as demonstrated through receipt of successful compaction test results for that portion of water main to be placed in service.

For water service transfers:
- For water services 1" and smaller, the Contractor shall anticipate three service transfers per one working day for Tacoma Water crews to complete service transfers.
- For water services 1.5 to 2 inches, the Contractor shall anticipate two service transfers per one working day for Tacoma Water crews to complete service transfers.
- For water services larger than 2- inches, the Contractor shall anticipate one service transfer per one and one half working days for Tacoma Water crews to complete service transfers.

All water service transfer times in this section are estimates based on transfers during the winter. Transfers during summer construction will likely take longer.

END OF SECTION

7-16.3(1) A Flange Isolation Kit

Contractor will install _____-inch Flange Isolation Kit at various locations. Materials for flange isolation kit shall consist of the following components as manufactured by PSI, Inc. or approved equal:

**Isolating and Sealing Gasket**

One full-faced isolating and sealing gasket, Line Backer Sealing Gasket - Type "E" or approved equal, 1/8" thick, phenolic retainer containing a precision tapered groove to accommodate the controlled compression of a nitrile quad-ring sealing element. Sealing element placement shall accommodate either flat, raised or RTJ face flanges. The quad-ring seal shall be pressure energized. The phenolic retainer shall have a 500 volts/mil dielectric strength and a minimum 25,000 psi compressive strength. The full faced flange isolating gasket shall be 1/8" less in I.D. than the I.D. of the flange in which it is installed.

**Full Length Bolt Isolating Sleeves**

One full length Mylar sleeve (extending half way into both steel washers) for each flange bolt. The Mylar shall be a 1/32 inch thick tube with a 4000 volts/mil dielectric strength and water absorption of 0.8% or less.
Washers

Two, 1/8 inch thick, glass clad phenolic isolating washers for each bolt. Their compressive strength shall be 33,000 psi, dielectric strength 500 volts/mil and water absorption 1.6% or less.

Two, 1/8 inch thick steel washers for each bolt. The I.D. of all washers shall fit over the isolating sleeve and the steel and isolating washers shall have the same I.D. and O.D.

Quality

Flange isolating kits shall be manufactured at a facility that has a registered ISO 9001:2000 Quality Management System. Submittals shall include copy of valid registration.

Flange Isolation Kits should be electrically inspected prior to backfilling to verify their effectiveness. The testing should include the resistance across the fitting, structure to reference electrode potentials on each side of the fitting, and a current leakage signal leakage test. An effective insulating fitting should have zero current or signal leakage through the fitting. The specific resistance value will vary depending upon the specific soil conditions and coating quality near the fitting. Does not include procuring actual water product which will be provided by contracting agency.

END OF SECTION

7-17 SANITARY SEWERS

7-17.3 Construction Requirements

This section is supplemented with the following:

Sanitary sewers may be encountered at various locations throughout this project. Prior to the start of the sanitary sewer repair, the Inspector and/or Contractor shall notify, Tacoma Public Works Inspector. C900 PVC shall be used on sanitary repairs. The repair of the sewer shall be made three feet outside of the water main trench or to the limits and material standards of Washington State Department of Ecology, Criteria for Sewer Works Design, section C1-9.1.4 If the sewer pipe falls into the unusual condition as specified by the Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-9.1.4 Unusual Conditions (Perpendicular), sub-section A, the sewer pipe shall comply with the requirements of a full length of pipe centered over the water main to the material standards of Table C1-4. No additional compensation shall be made for the extended connection and material. Mechanical couplings (Romac or equivalent) shall be installed at both ends of the sewer restoration forming a rigid connection between the new and existing pipe. Rigid PVC slip couplings for PVC pipe and Romac mechanical style for concrete pipe only. Repair/replacement/restoration will be at the inspector’s discretion and in accordance with Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-8 and C1-9.

7-17.4 Measurement

This section is revised to read:

“Storm, Sanitary, and Side Sewer Restoration” will be measured per each.
**7-17.5 Payment**  
*This section is revised to read:*

“Storm, Sanitary, and Side Sewer Restoration”, per each.

The unit bid price for “Storm, Sanitary, and Side Sewer Restoration”, includes all labor and materials required to remove and replace storm, sanitary, and side sewers. This is a per each bid item that includes all costs but is not limited to pipe, fittings, pea gravel, labor, and equipment, etc. to repair sewers, as well as Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, and compaction of Trench backfill.

**END OF SECTION**

**7-18 SIDE SEWERS**

**7-18.3 Construction Requirements**  
*This section is supplemented with the following:*

Side sewers may be encountered at various locations throughout this project. Prior to the start of the sanitary side sewer repair, the Inspector and/or Contractor shall notify Tacoma Public Works Inspector. C900 PVC shall be used on side sewer repairs. The repair of the side sewer shall be made three feet outside of the water main trench or to the limits and material standards of Washington State Department of Ecology, Criteria for Sewer Works Design, section C1-9.1.4 If the side sewer pipe falls into the unusual condition as specified by the Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-9.1.4 Unusual Conditions (Perpendicular), subsection A, the side sewer pipe shall comply with the requirements of a full length of pipe centered over the water main to the material standards of Table C1-4. No additional compensation shall be made for the extended connection and material. Mechanical couplings (Romac or equivalent) shall be installed at both ends of the sewer restoration forming a rigid connection between the new and existing pipe. Rigid PVC slip couplings for PVC pipe and Romac mechanical style for concrete pipe only. Repair/replacement/restoration will be at the inspector’s discretion and in accordance with Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-8 and C1-9.

**7-18.4 Measurement**  
*This section is revised to read:*

“Storm, Sanitary, and Side Sewer Restoration”, will be measured per each.

**7-18.5 Payment**  
*This section is revised to read:*

“Storm, Sanitary, and Side Sewer Restoration”, per each.

The unit bid price for “Storm, Sanitary, and Side Sewer Restoration”, includes all labor and materials required to remove and replace storm, sanitary, and side sewers.
This is a per each bid item that includes all costs but is not limited to pipe, fittings, pea gravel, labor, and equipment, etc. to repair sewers.

**END OF SECTION**

**8-01.3(8) STREET CLEANING**  
*This section is revised to read:*

Self-propelled pickup and vacuum street sweepers shall be used, whenever required by the Engineer to prevent transport of sediment and other debris off the project site. Street sweepers without vacuums will not be allowed. Street sweepers shall be designed and operated to meet air quality standards.

**8-01.4 Measurement**  
*The sixth sentence is replaced with the following:*

Street cleaning with self-propelled pickup and vacuum street sweeper equipment will be measured by the hour for the actual time spent cleaning pavement, as authorized by the Inspector. Time to move the equipment to or from the area on which street cleaning is required will not be measured.

**8-01.5 Payment**  
*The tenth sentence is replaced with the following:*

“Street cleaning with Self-propelled pickup and vacuum street sweeper equipment”, per hour.

The unit bid price for “Street cleaning with self-propelled pickup and vacuum street sweeper equipment” will be for a self-propelled pickup and vacuum street sweeper and operator.

**8-22 PAVEMENT MARKING**

**8-22.1 Description**  
*This section is supplemented with the following:*

The bid item for “Parking slip markings” in the Tacoma Water main bid proposal pertains only to the water main installation work in the vicinity of West Mall Terrace Apartments, 4720 S Pine Street. Installation of parking slip markings will re-establish pre-construction markings.

**8-22.3 Construction Requirements**  
*This section is supplemented with the following:*

The Contractor shall replace existing pavement markings that are disturbed by water main construction. Markings shall be equivalent to that existing prior to construction. All markings shall conform to the City of Tacoma standards.

**8-22.4 Measurement**  
*This section is supplemented with the following:*
Parking slip markings will be measured by lump sum bid item.

8-22.5 Payment
*This section is supplemented with the following:

“Parking slip Markings”, per lump sum.

The contract price per lump sum for “Parking Slip Markings” shall be full pay for re-establishing all striping for parking slips and includes all labor, equipment and materials.

END OF SECTION

9-03 AGGREGATES

9-03.21 Recycled Material
*This section is supplemented with the following:

No recycled material shall be used for trench backfill of water main.

END OF SECTION

9-30 WATER DISTRIBUTION MATERIALS
*The first paragraph of this section is revised to read:

This specification addresses pipe and appurtenances 24-inch in diameter and smaller. Water distribution material incorporated in the work shall be new. Prior to construction, the Contractor shall submit 3 copies of material submittals to the Engineer for approval.

9-30.1(1) Ductile Iron Pipe
*This section is revised to read:

Ductile iron pipe shall be centrifugally cast and meet the requirements of AWWA C151. Ductile iron pipe shall have a cement mortar lining meeting the requirements of AWWA C104. Ductile iron pipe shall be a minimum of Special Thickness Class 52 and manufactured by the following:

- Tyton Joint:
  - Pacific States Cast Iron Pipe Company
  - U.S. Pipe and Foundry Company
- Fastite Joint:
  - American Cast Iron Pipe Company
- Mechanical Joint:
  - American Cast Iron Pipe Company
  - Pacific States Cast Iron Pipe Company
  - U.S. Pipe and Foundry Company
Non-restrained joints shall be rubber gasket, push-on type, or mechanical type meeting the requirements of AWWA C111.

Restricted joints shall be as specified in Section 9-30.2(6).

*Note: When Tacoma Water Plans and Special Provisions require push-on joints to be restrained with nitrile gaskets, only American Ductile Iron Pipe and Fastite Fast-Grip® restraining gaskets are allowed.

9-30.1(3) Rubber Gaskets
This section is added with the following:

All gaskets furnished with pipe shall be styrene butadiene rubber (SBR), unless specified otherwise by the project engineer. When deemed necessary, "Nitrile" (NBR) gaskets will be required. When NBR gaskets are required they must be color-coded and/or marked in color so as to be easily identifiable as nitrile. When nitrile push-on joint restraining gaskets are required, they shall be Fastite Fast-Grip® manufactured by American Cast Iron Pipe Company or approved equal. All gaskets must conform to ANSI/AWWA C111. The gasket requirements for the specific project will be indicated on the face of the plan for the project.

9-30.2 Fittings
This section is revised to read:

Ductile iron flanges and flanged ductile iron spool pieces shall be in accordance with ANSI/AWWA C 115.

Gaskets for steel flanged joints shall be cloth inserted rubber made by Johns-Manville, JM-109 or approved equal.

Unless specified otherwise, all T-head bolts and nuts supplied for mechanical joint fittings, valves, sleeves, couplings, hydrants, tapping sleeves, etc., shall be made of high-strength, low alloy steel, conforming to ANSI/AWWA C111 (Corrosion-Resistant Steel "Cor-Ten"). All other bolts and nuts shall be hot dipped galvanized or electroplated and conform to ASTM A 307, Grade B.

All bolts shall be of sufficient length that, when assembled and tightened to proper torque, a minimum of one thread will extend outside of the nut.

Tie rods and nuts for hydrant laterals, etc., shall be made of high strength, low alloy steel conforming to ANSI/AWWA C111 ("Cor-Ten"), unless specified otherwise in the plans or Special Provisions.

All ductile iron fittings shall conform to the latest ANSI/AWWA C110 Specifications or ANSI/AWWA C153 for Mechanical Joint Compact Ductile Iron Class 350 fittings. All fittings shall have either cement-mortar lining conforming to ANSI/AWWA C104 or fusion bonded epoxy internal lining per ANSI/AWWA C153. Mechanical joint glands supplied with the above fittings shall be ductile iron in accordance with the above specifications. The mechanical joint fittings/pipe shall be installed and the bolts tightened in the sequence and to the torque specified in DIPRA.
published by the Ductile Iron Pipe Research Association. Type of joints or other special items shall be specified in section 7-10 or on the Tacoma Water Plans.

9-30.2(6) Restrained Joints

This section is supplemented with the following:

Mechanical joint restraint shall be incorporated in the design of the follower gland and shall include a restraining mechanism which, when actuated, imparts multiple wedging action against the pipe, increasing its resistance as the pressure increases. Joint flexibility shall be maintained after burial. Glands shall be manufactured of ductile iron conforming to ASTM A 536-80. Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell and tee-head bolts conforming to ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53. Twist-off nuts, sized same as tee-head bolts, shall be used to insure proper actuating of restraining devices. The mechanical joint restraint device shall have a working pressure of at least 250-psi with a minimum safety factor of 2:1 and shall be manufactured by:

- EBAA Iron, Inc., MEGALUG,
- Romac “RomaGrip”
- Uniflange Series 1400
- Stargrip® series 3000
- Tyler Union “TUFGrip Series 1000”
- or approved equal

Tyton joint restraint shall be made with Field-Lok 350® restraining gaskets or approved equal. Fastite joint restraint shall be made with Fast-Grip® restraining gaskets or approved equal.

9-30.2(7) Bolted, Sleeve Type Couplings for Plain End Pipe

The first two sentences in this section are revised to read:

Bolted, sleeve-type couplings, reducing couplings, or transition couplings will be mechanical style flexible coupling meeting AWWA C219, with minimum 7 inch center ring, epoxy coating, and stainless steel nuts and bolts.

End Cap Couplings will be mechanical style flexible coupling meeting AWWA C219, with minimum 7 inch center ring, epoxy coating, stainless steel nuts and bolts, and tapped 2-inch.

9-30.3(1) Gate Valves (3 inches to 16 inches)

This section is revised to read:

The end flanges of flanged gate valves shall conform in dimensions and drilling to the Standard ANSI B16.1 for cast iron flanges and flanged fittings, Class 125 unless specifically provided otherwise in plans or supplementary specifications. The bolt holes shall straddle the vertical centerline.

All gate valves shall be resilient seat and shall comply with the ANSI/AWWA standard as listed below:
All Resilient Seat Gate Valves shall conform to the latest revision of AWWA Standard C-509/515 and be UL listed, FM approved. They shall be as manufactured by:

- American Flow "Series 2500"
- AVK-series 25 or 65
- Clow model "2638, 2639 and 2640"
- Kennedy model "KS-FW" and "KS-RW"
- M&H: Style "4067"
- M&H: Style "7000 series"
- Mueller Style "2360"
- NIBCO 619-RW Series
- US Pipe "Metroseal 250"
- East Jordan “Flowmaster”
- or approved equal

All Resilient Seat Gate Valves shall meet the following requirements:

- Shall have the body and bonnet coated with a fusion bonded epoxy coating meeting all the application and performance requirements of AWWA C-550.
- All gate valve ends shall be as shown on the Tacoma Water Plans and conform to the applicable ANSI/AWWA standard. Flanged ends shall conform to ANSI B16.1 class 125 or C110 A21.10. Mechanical joint and push-on joint must conform to ANSI/AWWA C111, A21.11.
- All bonnet and packing nuts and bolts shall be stainless steel.

9.30.3(3) Butterfly Valves
This section is revised with the following:

All butterfly valves shall conform to ANSI/AWWA C504 for Rubber Seated Butterfly Valves, Class 150B. All nuts and bolts shall be stainless steel.

All butterfly valves shall be manufactured by:
- Henry Pratt "Groundhog"
- M&H/Clow “4500”
- Mueller “Lineseal III”
Or approved equal

12” Butterfly Valves to be installed for this project. If contractor is not able to order the 12” Butterfly Valves due to the supply chain long lead times, then the contractor can substitute the 12” Butterfly Valves to the 12” Gate Valves specified in section 9-30.3(1). Quantity changes resulting in the said substitution for Crushed Surface Top Course for Trench Backfill (Bid Item No. 6) and Trench Excavation and Disposal (Bid Item No. 11) will be reflected on the contract bid items.

9.30.3(4) Valve Boxes
This section is revised in its entirety with the following:
Cast iron valve boxes and lids shall be as indicated on the attached Tacoma Water Drawing No. 17-56-1. All buried valves shall be provided with a valve box and lid with an extension of cast iron soil pipe as necessary. The Contractor shall maintain the location and provide access to all valves within the project. No valve shall remain buried during construction.

9-30.3(8) Tapping Sleeve and Valve Assembly

The fourth sentence is revised to read:

Valves specifically designed for tapping meeting the requirement of AWWA C500, and valves meeting the requirements of AWWA C509/C515 will be permitted. All nuts and bolts shall be stainless steel.

The sixth sentence is revised to read:

Tapping sleeves shall be ductile iron, mechanical joint type or the fabricated steel type, whichever is specified in the bid proposal.

This section is supplemented with the following:

The fabricated steel sleeves shall have epoxy coating and stainless steel bolts and shall be:

- Model JCM 412 manufactured by JCM Industries*
- Model JCM 414 manufactured by JCM Industries
- Model FTS 420 manufactured by Romac Industries, Inc*
- SST III manufactured by Romac Industries, Inc.
- Smith Blair Style 623
- or approved equal

*Models JCM 412 and FTS 420 will only be allowed when tapping ductile iron pipe and the size of the tap is less than half of the size of the pipe being tapped.

Ductile iron, mechanical joint sleeves shall be:

- Model H-615 manufactured by Mueller Co.
- Model H-619 manufactured by Mueller Co.
- Or approved equal.

9-30.5 Hydrants

This section is revised to read:

Fire hydrants furnished under these Specifications shall conform to the ANSI/AWWA C502, Specifications for Dry-Barrel Fire Hydrants, with the following limitations and exceptions, and be installed per Tacoma Water Drawing 17-56-1.

a. Drawings - Drawings of adequate size showing principal dimensions, material and finish shall be furnished with the bid for fire hydrants not listed below as acceptable.

b. Make –
• Clow “Medallion”
• Kennedy “Guardian K81D”
• M&H 929, “Reliant” (casting date of 1997 or later.)
• Mueller “Super Centurion 250”
• U.S. Pipe “M-94”
• Waterous “Pacer/WB67-250, Tacoma”
c. **Capacity** - Standard size - two-hose and one-pumper nozzle.
d. **Size** - Standard size shall be 5-1/4-inch main valve with 6-inch inlet bell.
   All hose nozzles shall be 2-1/2 inches. Unless otherwise indicated in the special Provisions and/or the Drawings, all pumper nozzles and quick connect fittings shall be as specified on standard drawing 17-56-1.
e. **Length** - Contractor shall verify proper depth of bury of fire hydrant prior to installation.
f. **Hydrant Inlet** - All hydrants shall be provided with mechanical joint inlet.
g. **Operating Mechanism** - All moving contact surfaces shall be bronze on bronze or bronze on iron or steel as may be approved by the Superintendent. The hydrants shall have the main valve seat threaded into a bronze sub-seat in the shoe of the hydrant to permit easy removal of the main valve seat. The bronze sub seat shall be; threaded into the shoe of the fire hydrant, or the sub seat shall be attached to the shoe of the fire hydrant independently from the barrel to shoe connection.
h. **Direction of Opening** - All hydrants shall open by turning the operating nut to the left (counter-clockwise).
i. **Hydrant Barrels** - All hydrant barrels shall have a flange located at least 2 inches above the finished grade line and flanged extension sections shall be available in increments of 6 inches.
j. **Operating Nuts for Stem and Nozzle Caps** - The operating stem and cap nut shall be pentagonal in shape. The pentagon shall measure 1.35 inches from the point to the flat, at the base of the nut and 1.23 inches at the top. The faces shall be tapered uniformly and the height of the nut shall not be less than 1.0 inches. The point to the flat dimension shall be measured to the theoretical point where the faces would intersect were there no rounding off of the corners. All nozzles shall be fitted with cast iron threaded caps with operating nut of the same design and proportions as the stem nut. Caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable gaskets for positive water tightness.
k. **Fire Hydrant Quick Connect Coupling** – The fire hydrant quick Connect Coupling (aka Storz Coupling) shall be in compliance with the latest version of “NFPA 1963, for non-threaded Metal-Faced Hydrant Connections”. The size of the Quick Connect Coupling and hydrant pumper nozzle threads will be as shown on standard drawing 17-56-1.
l. **Nuts and Bolts** - All nuts and bolts below ground level shall be stainless steel.

**9-30.5(2) Hydrant Dimensions**

_This section is revised to read:_

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrant connection D.I. Pipe ins. dia.</td>
<td>6-inch</td>
</tr>
<tr>
<td>Standard, minimum dia.</td>
<td>6-7/8 inch</td>
</tr>
<tr>
<td>Length of 4.5 ft. bury, hydrant from bottom of hydrant</td>
<td>4 feet, 8 inches</td>
</tr>
</tbody>
</table>
connection to sidewalk ring.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve opening minimum dia.</td>
<td>5-1/4 inches</td>
</tr>
<tr>
<td>Hose Nozzles-number and size</td>
<td>2 - 2-1/2-inch</td>
</tr>
<tr>
<td>Thread (Nat. Board Fire Underwriters)</td>
<td>7-1/2 per inch</td>
</tr>
<tr>
<td>Outside dia. Finished</td>
<td>3-1/16 inch</td>
</tr>
<tr>
<td>Dia. at root of thread</td>
<td>2.8715 inch</td>
</tr>
<tr>
<td>Pattern of thread</td>
<td>60° V thread</td>
</tr>
<tr>
<td>Total length of threaded male Nipple</td>
<td>1-inch</td>
</tr>
<tr>
<td>Pumper Nozzles-number and size</td>
<td>1 - 4-inch</td>
</tr>
<tr>
<td>Thread, outside dia. finished (with .02&quot; cut off top)</td>
<td>5.09-inch</td>
</tr>
<tr>
<td>Dia. at root of thread (with .02&quot; left in valley)</td>
<td>4.74-inch</td>
</tr>
<tr>
<td>Threads (Tacoma Std.)</td>
<td>4 per inch</td>
</tr>
<tr>
<td>Pattern of thread-modified</td>
<td>60° V thread</td>
</tr>
<tr>
<td>Total length of threaded male nipple</td>
<td>1-1/8-inch</td>
</tr>
</tbody>
</table>

9-30.5(3) Hydrant Extensions

This paragraph is revised to read:

No hydrant barrel extensions are approved on new installations.

END OF SECTION

9-30.6 Water Service Connections

This section does not apply to the contract.

END OF SECTION
TACOMA WATER

STANDARD DETAILS

17-56-1
APPENDIX A

CITY OF TACOMA

AND

WSDOT STANDARD PLANS
ALL NEW PAVEMENT AND SIDEWALK CONSTRUCTION BEHIND THE NEW CURB LINE WILL BE SHADED.

ALL REMOVAL OR REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT OR SIDEWALK BEHIND THE NEW CURB LINE SHALL BE SHADED.

WHERE NO SHADING APPEARS BETWEEN THE NEW CURB LINES, REFER TO THE TYPICAL SECTIONS TO DETERMINE WHAT IS TO BE DONE IN THE SPECIFIC AREA.

THIS TYPE OF SHADING DENOTES REMOVAL AND REPLACEMENT OF EXISTING WALK.

THIS WOULD DENOTE CONSTRUCTION OF NEW CURB, SIDEWALK, AND A DRIVEWAY AS SHOWN.

ALL EXISTING IMPROVEMENTS (PAVEMENT, SIDEWALKS, ETC.) WILL BE REMOVED BETWEEN A POINT ONE (1) FOOT IN FRONT OF THE EXISTING FACE OF CURB AND THE BACK OF THE NEW CURB.

THIS WOULD DENOTE REMOVAL OF EVERYTHING BETWEEN THE OLD AND NEW CURB LINES; CONSTRUCTION OF A NEW INTEGRAL WALK AND A NEW DRIVEWAY; ALSO THE REMOVAL AND REPLACEMENT OF THE EXISTING DRIVEWAY SLAB TO THE SHADED LIMITS.

WHERE A PERMANENT PAVEMENT SURFACE EXISTS BETWEEN THE NEW CURB LINES (OTHER THAN DRIVEWAYS AND PARKING AREAS) THE PAVEMENT WILL REMAIN UNLESS SHADED.

THIS WOULD DENOTE CONSTRUCTION OF NEW CURB LINES, INCLUDING REMOVAL OF EVERYTHING BETWEEN EXISTING AND NEW CURB LINES, WITHOUT DISTURBING EXISTING WALKS. SHADING SHOWS THAT EXISTING PAVEMENT (ASPH., CONC., OR ASPH. OVER CONC.) IS TO BE REMOVED.

WHEN LINE IS LABELED IT DENOTES MEET LINE OF NEW PAVING WITH EXISTING PAVED STREETS.

WHEN LINE IS NOT LABELED IT DENOTES LIMITS OF FULL SECTION PAYING MEETING UNPAVED STREETS.

SHADED BORDER WITH SOLID LINE DENOTES ASPHALT PAVING ON UNPAVED STREETS. IT WILL ALSO BE USED TO SHOW ASPHALT PAVING OF DRIVEWAYS AND ALLEYS.

SHADED BORDER WITH DASHED LINE DENOTES GRADING REQUIRED ON DIRT STREET. IT WILL ALSO BE USED TO SHOW REQUIRED GRADING IN DIRT ALLEYS AND DRIVEWAYS.

DENOTES TOP OR TOE OF SLOPE. ALSO LIMITS OF CONST. PERMITS WHEN LABELED CONST. PERMIT.

DENOTES APPROXIMATE LIMITS OF FILL OR CUT SLOPE. SHADED TRIANGLE SHOWS TOP OF SLOPE.
NOTES:

(Position North in general direction of top or to right of sheet)

(PREPARE THIS LAYOUT PLAN FOR READING FROM BOTTOM OR THE RIGHT)

PLAN

1 inch = 20 feet
or
1 inch = 50 feet

SCALES

HORIZONTAL

1 inch = 20 feet

PROFILE

1 inch = 50 feet

VERTICAL

1 inch = 5 feet

or

1 inch = 10 feet

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

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CITY ENGINEER

FINAL PLAN FOR IMPROVEMENTS

STANDARD PLAN NO. DR-03
NOTES:

1. Use this standard for new plats and for older platted areas where there are no other developments that prohibit its use.
2. Tacoma Power and Tacoma Water agree that underground primary electrical cable will normally be in the S. or E. sides of the streets and water mains in N. or W. sides.
3. Locate transformer vault on private property as noted on Tacoma Power Standard C-UG-1300.
4. Communication pedestals to be located a minimum of 12" from transformer well, at angle 45 degrees from sides of well.
5. Electric and communications longitudinal UG cable depth depends on joint lay:
   A. When telephone company buries alone, adjusted depth and location may be agreed upon in each case.
   B. When Tacoma Power installs underground facilities alone or joint with communication utilities and/or natural gas, refer to Tacoma Power Standard C-UG-1300 for location, width, and depth of trench and associated pre-cast concrete vaults and handholes.
6. Common trench shall be located in easement inside of property line. If no easement exists, utilities in common trench shall be located in planting strip.
NOTES:

1. Use this standard for new plats and for older platted areas where there are no other developments that prohibit its use.
2. Tacoma Power and Tacoma Water agree that underground primary electrical cable will normally be in the S. or E. sides of the streets and water mains in N. or W. sides.
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   B. When Tacoma Power installs underground facilities alone or joint with communication utilities and/or natural gas, refer to Tacoma Power Standard C-UG-1300 for location, width, and depth of trench and associated pre-cast concrete vaults and handholes.
6. Cut or fill limits to begin at property line. Obtain slope easements where necessary.
7. Common trench shall be located in easement inside of property line. If no easement exists, utilities in common trench shall be located in planting strip.
NOTES:
1. Cul de sac may be graded towards center where a facility that accepts runoff such as bioretention is installed.

OPTION 1 - SLOPE TO OUTER CURB

OPTION 2 - SLOPE TO CENTER
USE 3/4" PVC TO ATTACH WIRE TO POLE IF THE DISTANCE FROM THE SECONDARY RACK TO THE MAST ARM IS MORE THAN 24"

TRIM THROUGH BOLT TO 1" MAX. BEYOND NUT, AND FILE SMOOTH AND COLD GALV.

5/8" GALV. BOLT WITH MIN. 3" CURVED STRAIN PLATE AND SQUARE NUT

1/2" X 4" GALV. LAG BOLT BOTTOM HOLES

10' MIN. TO THE CLOSEST PART OF THE LUMINAIRE

12" MIN.

24" MIN. TO TV, TEL, ALARM

NOTES:

1. WIRE SHALL BE MINIMUM #10 AWG COPPER 2 CONDUCTOR. CONNECT TO 240 VOLT, NO NEUTRAL OR GROUND CONNECTION. USE COMPRESSION CONNECTORS APPROVED BY ENGINEER.

2. LUMINAIREs SHALL BE LEVELED AFTER INSTALLATION. SOCKET POSITION SHALL BE ADJUSTED TO ANOTHER POSITION IF REQUESTED BY THE ENGINEER BEFORE INSTALLATION.

3. ALL HARDWARE SHALL BE HOT DIP GALVANIZED LINE HARDWARE.

4. ALL WORK ON UTILITY POLES TO BE PERFORMED BY QUALIFIED LINEMEN.
TOOL FINISH TOP AND EDGES

4 EA ANCHOR BOLTS
MINIMUM TOP 8" OF BOLT SHALL BE GALvanized
(AASHTO M111)

CONDUIT SHALL BE CENTERED ON POLE
W/CLEARANCE FOR COUPLINGS/PULLING BELLS

THERE SHALL BE A MINIMUM OF TWO
CONDUITS IN EACH FOUNDATION.
CONDUIT SHALL HAVE 18" RADIUS AND
BE ORIENTED TO MINIMIZE CONDUIT
BENDS.

4.5 TO 5.0" MIN. 2 FULL THREADS
MAX. 3" ABOVE NUT

(2) HOOPS WITHIN 5" OF TOP

Scribe a circle with end
of conduit above each
conduit entering the
foundation.

PULLING BELLS
GALVANIZED HEX NUTS & WASHERS
GROUT

TOP OF FOUNDATION TO BE SET TO SIDEWALK
GRADE UNLESS OTHERWISE SPECIFIED.
TOP 6" OF FOUNDATION SHALL BE FORMED
SQUARE
1/2" WEEP HOLE ON LOWEST SIDE
4 #4 VERTICAL REBARS
#4 REBAR HOOPS 8" O.C. (QTY AS REQ'D)

NOTES:

1. FOUNDATIONS SHALL BE INSTALLED IN 24"
AUGERED HOLE IN UNDISTURBED MATERIAL.
WHERE PRE-CAST BASES ARE USED, THE
INSTALLATION SHALL BE REVIEWED AND
APPROVED BY THE ENGINEER. ENTIRE HOLE
SHALL BE BACKFILLED WITH CDF OR OTHER
COMPACTIBLE MATERIAL APPROVED BY
THE ENGINEER.

2. CALL FOR UTILITY LOCATION BEFORE DIGGING
(1-800-424-5555)

3. ALL STEEL TO HAVE 3" MINIMUM CONCRETE
COVER. HOOPS SHALL HAVE 135° HOOKS,
ANCHOR BOLTS MAY BE SECURED TO HOOPS.

4. BOND CAGE TO GROUND LUG.
NOTES:

1. INTERCEPT EXISTING CONDUIT, WHERE APPLICABLE, AND ROUTE TOWARD LIGHT STANDARD. TERMINATE CONDUIT(S) APPROXIMATELY 12" FROM BASE OF STANDARD. SEAL END OF CONDUITS WITH TAPE.

2. COIL THREE FEET OF WIRE AT END OF CONDUIT BEFORE ENTERING BASE OF STANDARD.

3. ROUTE WIRE UP TO TERMINAL BLOCK WITHOUT SPLICING.

4. MINIMUM AUGER SIZE IS 12". BACKFILL WITH CRUSHED SURFACING TOP COURSE. TAMM IN 6 INCH LIFTS.

5. SQUARE POLE TO CURB ±3 DEGREES.

* OR AS DETERMINED BY ENGINEER
THIS INSTALLATION IS FOR WOOD POLES WITH ONLY STREETLIGHTING INSTALLED ON THE POLE. DO NOT USE ON TACOMA POWER UTILITY POLES.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

CITY ENGINEER

STREETLIGHT
ON TIMBER POLE TYPICAL
INSTALLATION W/UNDERGROUND FEED

STANDARD PLAN NO. SL-04
STREETLIGHTING TAP
FOR USE IN BASE OF STANDARDS

TAPING INSTRUCTIONS

1. MAKE SPLICE AS SHOWN IN FIGURE A
2. APPLY TAPE AS SHOWN IN FIGURE A
   APPLY TAPE AND "SCOTHKOTE" MOISTURE
   RESISTANT ELECTRICAL COATING OVER
   ENTIRE SPLICE AREA.
3. ATTACH CABLE TIE A MINIMUM OF 2" FROM
   THE PRESSURE CONNECTOR AS SHOWN IN FIGURE B.
4. APPLY SECOND COAT OF VARNISH.

FIGURE A

FIGURE B
WOOD POLES:
2" NUMBERS
NAIL ON ALUMINUM NUMBERS

METAL/CONCRETE/FIBERGLASS POLES
3" NUMBERS
(C OR D SERIES)

APPLY ADDRESS NUMBERS
TO THE STREET SIDE OF
THE POLE

COLORS:

CONCRETE POLES:
BACKGROUND: LIGHT BEIGE
FOREGROUND: DARK BROWN

UNPAINTED ALUMINUM
OR GALVANIZED POLES:
BACKGROUND: NONE
FOREGROUND: BLACK

IF THERE ARE EXISTING
NUMBERS ON POLE
PAINT OVER OR REMOVE OLD NUMBERS
MAXIMUM TENSION = 100 POUNDS
TYPICAL
MAXIMUM SPAN LENGTHS

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WOOD POLE

GALVANIZED BOLT WITH SQUARE WASHER & SQUARE NUT.
TRIM THRU BOLT TO 1" MAX. BEYOND NUT & FILE SMOOTH.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

STREETLIGHT OVERHEAD TRIPLEX SPANS TYPICAL INSTALLATION

CITY ENGINEER
DATE 2/4/03
STANDARD PLAN NO. SL-07
50 AMP OR AS SPECIFIED
BACK-FED MAIN BREAKER

RETAINING CLIP

WHEN SERVING FROM TRASFORMERS LARGER THAN 50 KVA AN EVALUATION OF INTERRUPT CAPACITY OF THE SERVICE EQUIPMENT IS REQUIRED.

PANEL LAYOUT

N.T.S.

<table>
<thead>
<tr>
<th>SIZE OF BRANCH CIRCUIT CONDUCTOR</th>
<th>MAXIMUM BREAKER SIZE</th>
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<tbody>
<tr>
<td>#8 AWG COPPER</td>
<td>30AMP</td>
</tr>
<tr>
<td>#6 AWG COPPER</td>
<td>40AMP</td>
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</tbody>
</table>

* SIZE BASED ON ENSURING BREAKER WILL TRIP ON FAULTS AT END OF LONG CIRCUITS.

PROCEDURE:

1. OBTAIN ELECTRICAL PERMIT FROM TACOMA POWER FOR EACH ELECTRICAL SERVICE.
2. COMPLETE SERVICE PANEL INSTALLATION EXCEPT FOR ENTERING TRANSFORMER VAULT OR PAD, FOR SSB INSTALLATIONS, INSTALL CONDUIT AND WIRE INTO SSB.
3. PREFERRED PRACTICE IS TO OBTAIN SERVICE FROM SSB CONTACT TACOMA POWER BEFORE SERVICING STREETLIGHTS FROM TRANSFORMER.
4. ARRANGE FOR ELECTRICAL INSPECTION AND CUT-IN BY TACOMA POWER (502-8277).
5. AFTER TACOMA POWER ACCEPTANCE OF SERVICE PANEL CONTACT THE UNDERGROUND RESIDENTIAL DISTRIBUTION (URD) OFFICE (502-8232) TO ARRANGE FOR CONDUIT AND CONDUCTOR ENTERANCE INTO TRANSFORMERS.

**6. PRIMARY GRND ROD MAY BE LOCATED OUTSIDE OF SERVICE ENCLOSURE IN GROUND ROD BOX.

**7. DO NOT PENETRATE OUTER WALL OF ENCLOSURE WHEN MOUNTING EQUIPMENT HARDWARE.

APPROVED FOR PUBLICATION
CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

STREETLIGHT SERVICE DETAIL
UNDERGROUND TYPE A
STANDARD PLAN NO. SL-08
**PROCEDURE:**

1. **OBTAIN ELECTRICAL PERMIT FROM TACOMA POWER FOR EACH ELECTRICAL SERVICE.**

2. **COMPLETE SERVICE PANEL INSTALLATION EXCEPT FOR ENTERING TRANSFORMER VAULT OR PAD. FOR SSB INSTALLATIONS, INSTALL CONDUIT AND WIRE INTO SSB.**

3. **PREFERRED PRACTICE IS TO OBTAIN SERVICE FROM SSB. CONTACT TACOMA POWER BEFORE SERVICING STREETLIGHTS FROM TRANSFORMER.**

4. **ARRANGE FOR ELECTRICAL INSPECTION AND CUT-IN BY TP (502-8277).**

5. **AFTER TP ACCEPTANCE OF SERVICE PANEL CONTACT THE UNDERGROUND RESIDENTIAL DISTRIBUTION (URD) OFFICE (502-8232) TO ARRANGE FOR CONDUIT AND CONDUCTOR ENTERANCE INTO TRANSFORMERS.**

6. **DO NOT PENETRATE OUTER WALL OF ENCLOSURE WHEN MOUNTING EQUIPMENT HARDWARE.**

---

**CITY OF TACOMA**
**DEPARTMENT OF PUBLIC WORKS**

---

**APPROVED FOR PUBLICATION**

**STREETLIGHT SERVICE DETAIL**
**UNDERGROUND TYPE B**

**STANDARD PLAN NO. SL-09**
CONDUIT GROUNDING

- J-BOX
- BOND TO BOX COVER (IF METALLIC) WITH SUFFICIENT WIRE TO MOVE LID 24 INCHES.
- SPLICE WITH IRREVERSIBLE COMPRESSION CONNECTOR
- PULLING BELL
- #8 AWG COPPER ATTACHED TO OUTSIDE OF PVC CONDUIT
- DIRECT BURIAL BRONZE GROUND CLAMP (NAED NO. 01009)
- RMC/IMC
- PVC
- RMC/IMC

GROUNDING WIRE SIZED PER NEC (NO 6 MIN.)

- USE WHERE STEEL CONDUIT DOES NOT EXTEND TO JUNCTION BOX OR OTHER TERMINATION POINT.

GROUND ROD INSTALLATION

- GROUND ROD BOX MINIMUM 8" I.D.
- TWO HEAVY DUTY GROUND ROD CLAMPS (MIN. 1" CONTACT SURFACE)
- TO SECOND GROUND ROD (REQUIRED AT SERVICE)
- COPPER CLAD STEEL GROUND ROD MIN. 5/8" x 8'
- PVC 40

NOTES:

1. ALL STREETLIGHT CONDUITS SHALL INCLUDE AN EQUIPMENT GROUNDING CONDUCTOR.
2. METALLIC CONDUIT SHALL BE BONDED AT BOTH ENDS TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. EQUIPMENT GROUNDING CONDUCTORS SHALL BE STRANDED INSULATED COPPER.
NOTES:

1. Concrete base shall be poured in place. Hand mixed concrete is prohibited. Concrete base need not be formed.

2. Notice to surveyors: any monument set in the City of Tacoma must bear the land surveyor number of the surveyor setting the monument. Monuments set as part of an approved plat are exempt.

3. The surveyor is to supply the City of Tacoma with a copy of the calculations used to determine all monument positions before the monuments are set.

4. Brass marker for City of Tacoma funded projects will be supplied by the City, all other brass markers to be supplied by the contractor.

5. Monument must be magnetically locatable.

6. Prior to removing or destroying a monument, the surveyor or engineer shall apply for a permit from the Department of Natural Resources in accordance with WAC 332-120.
NOTES:
1. This detail shall be used in unpaved areas only.
2. Prior to removing or destroying a monument, the surveyor or engineer shall apply for a permit from the Department of Natural Resources in accordance with WAC 332-120.
NOTES:

A. When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The height of the curb shall be 6", unless otherwise shown on plans.

B. Flush with gutter pan at curb ramp entrance or 3/8" vertical lip at driveway entrance.

Cement concrete traffic curb & gutter

INTEGRAL CEMENT CONCRETE TRAFFIC CURB

CEMENT CONCRETE TRAFFIC CURB & GUTTER

TYPE "C" MOUNTABLE CEMENT CONCRETE CURB & GUTTER

TYPE "D" MOUNTABLE CEMENT CONCRETE CURB & GUTTER

NOTES:

1. For trench crossings, curb and gutter shall be removed to a minimum 2' cut back over undisturbed soil.
2. In all projects, any remaining sections of curb and gutter less than 5' in length between the project area and the nearest control joint shall also be removed and replaced.
3. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed.
4. Concrete finish shall match existing.
5. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Foundations shall be fully compacted prior to form placement.
7. Unsuitable foundation shall be replaced with 3/8" crushed surfacing top course.

REVIEWED BY  
DCS  
PUBLIC WORKS
N/A  
TACOMA POWER

GMS  
ENVIRONMENTAL SERVICES
N/A  
TACOMA WATER

APPROVED FOR PUBLICATION  
CITY ENGINEER  
8/10/110  
DATE

CITY OF TACOMA  
CEMENT CONCRETE CURB AND GUTTER

STANDARD PLAN NO.  
SU-03
NOTE:

Flush with gutter pan at curb ramp entrance or ¾" vertical lip at driveway entrance.

**Type "C" Mountable Integral Cement Concrete Curb**

- ½" R
- 8" CURB
- CEMENT CONCRETE PAVEMENT
- VAR.

**Type "D" Mountable Integral Cement Concrete Curb**

- ½" R
- 6" 1" R
- 6" 1" MIN. OR AS DIRECTED BY ENGINEER
- VAR.

**HMA Wedge Curb**

- 18" CURB
- ASPHALT CONCRETE PAVEMENT VAR. DEPTH

**HMA Wedge Curb Downhill Side of Full Street Warp**

- 6"

**Cement Concrete Pedestrian Curb**

- 6" PEDESTRIAN CURB PREFERRED (4" MIN.)
- 6"

**Cement Concrete Traffic Curb**

- 1/4" PREMOLDED JOINT FILLER WHEN ADJACENT TO CEMENT CONCRETE HARD SURFACE
- 7 ¾"

**NOTES:**

1. For trench crossings, curb and gutter shall be removed to a minimum 2' cut back over undisturbed soil.
2. In all projects, any remaining sections of curb and gutter less than 5' in length between the project area and the nearest control joint shall also be removed and replaced.
3. All joints shall be saw cut full depth prior to restoration and ¾" expansion joint installed.
4. Concrete finish shall match existing.
5. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
6. Foundations shall be fully compacted prior to form placement.
7. Unsuitable foundation shall be replaced with ¾" crushed surfacing top course.

**Reviewers:**

- DCS
- PUBLIC WORKS
- ENVIRONMENTAL SERVICES
- TACOMA POWER

**Approved for Publication:**

- GMS
- NA
- TACOMA WATER

**City of Tacoma:**

- CEMENT CONCRETE CURB AND GUTTER AND ASPHALT WEDGE CURB

**City Engineer:**

- NA
- NA
- CITY ENGINEER

**Date:**

- 8/16/14

**Standard Plan No.:**

- SU-03A
1. Sidewalks shall be designed and constructed in accordance with 2010 ADA Standards, 28 CFR, Part 35 and as supplemented by the Public Right of Way Accessibility Guidelines (PROWAG). City of Tacoma prefers sidewalk cross slopes to be designed to a maximum of 1.5% and a minimum of 1.0%.
2. When placing walk adjacent to existing curb and gutter, curb and gutter will be repaired as necessary before placing concrete forms for walk.
3. Staking is required where no curb is present.
4. Thickened edge shall be constructed using cement concrete on all radii. All other locations shall be backfilled and compacted.
5. Combination walk shall be 7" min. on all commercial sites and arterial streets. Combination walk shall be a minimum of 5' on non arterial streets. Dimensions are back of curb to back of walk. See contract plans for width and placement of sidewalk.
6. All expansion joints shall be full depth with 3/8" premolded joint filler.
7. All joints shall be cleaned and edged. External edges shall be 3/8" radius. Internal joints shall be 1/2" radius.
8. All soft and yielding foundation material shall be removed and replaced with crushed surfacing top course (CSTC) per Section 9-03.9(3) of the WSDOT Standard Specifications.
9. All sidewalk shall be replaced to the nearest expansion or contraction joint. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
10. For sidewalks within the North Slope Historical District area use Standard Plan HD-NS03. See Standard Plan HD-NS01 for North Slope Historic District site map.

| TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT |
| 4" SHINER AROUND 15" PANEL 3/8" EXPANSION JOINT |
| 3/4" EXPANSION JOINT TO MATCH CURB JOINTS NOT TO EXCEED 15' |
| 2" X 1/8" DEEP WESTERN GROOVER CONTRACTION JOINT (TYP.) |
| 4" SHINER AROUND 15" PANEL 3/8" EXPANSION JOINT |
| TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT |

DCS
PUBLIC WORKS
N/A

ENVIRONMENTAL SERVICES
N/A

TACOMA POWER
TACOMA WATER

APPROVED FOR PUBLICATION

CITY OF TACOMA
CEMENT CONCRETE SIDEWALK

STANDARD PLAN NO. SU-04

DATE 4/28/04
NOTES:

1. Sidewalks shall be designed and constructed in accordance with ADA standards for accessible design, 28 CFR, Part 35, as supplemented by the public right of way accessibility guidelines (PROWAG). City of Tacoma prefers sidewalk cross slopes to be designed to a maximum of 1.5% and a minimum of 1.0%.
2. When placing walk adjacent to existing curb and gutter, curb and gutter will be repaired as necessary before placing concrete forms for walk per Right-of-Way Restoration Policy.
3. Staking is required where no curb is present. Combination walk shall be 7' min. on all commercial sites and arterial streets. Combination walk shall be a minimum of 5' on non arterial streets. Dimensions are from back of curb to back of walk. See contract plans for width and placement of sidewalk.
4. All expansion joints shall be full depth with 3/8" premolded joint filler.
5. All joints shall be cleaned and edged. External edges shall be 1/2" radius. Internal joints shall be 1/4" radius.
6. Subgrade preparation shall meet APWA GSP 2-06.3(3) Subgrade for Permeable Pavements.
7. Permeable ballast shall meet APWA GSP 4-04.2 Gravel Base and 9-03.9(2).Opt1 Pavement Ballast.
8. Soil and yielding foundation material shall be removed and replaced with permeable ballast per APWA GSP 4-04.2 Gravel Base and 9-03.9(2).Opt1 Permeable Ballast.
9. Geotextile fabric may be required between native soils or amended soils and permeable ballast per the recommendation of the geotechnical professional. Geotextile shall be per WSDOT 9.33.2(1), Tables 1 and 2, nonwoven, moderate survivability.
10. For sidewalks within the North Slope Historic District area use Standard Plan ND-NS03. See Standard Plan HD-NS01 for North Slope Historic District site map.
11. For plan view refer to City of Tacoma Standard Plan SU-04.
12. Combination walk shall be 7' min. on all commercial sites and arterial streets. Combination walk shall be a minimum of 5' on non arterial streets. Dimensions are from back of curb to back of walk. See contract plans for width and placement of sidewalk.
13. All disturbed areas not covered with hard surfaces shall be stabilized by planting or mulching.
14. Where needed, adjust ballast in planting strip to accommodate plants. Keep permeable ballast a minimum 2 feet from trunk of trees.
15. Refer to Std. Plan SU-32 for subgrade terracing, as applicable.
NOTES:
1. See SU-04b(2) for Notes.
NOTES:

1. Sidewalks shall be designed and constructed in accordance with ADA standards for accessible design, 28 CFR, Part 35 and as supplemented by the public right of way accessibility guidelines (PROWAG). City of Tacoma prefers sidewalk cross slopes to be designed to a maximum of 1.5% and a minimum of 1.0%.

2. When placing walk adjacent to existing curb and gutter, curb and gutter will be repaired as necessary before placing concrete forms for walk per Right-of-Way Restoration Policy.

3. Staking is required where no curb is present.

4. Combination walk shall be 7' min. on all commercial sites and arterial streets. Combination walk shall be a minimum of 5' on non arteral streets. Dimensions are from back of curb to back of walk. See contract plans for width and placement of sidewalk.

5. All isolation joints shall be full depth with 3/8" premolded joint filler.

6. All joints shall be clean and edged. Joint edges shall be 1/2" radius.

7. Subgrade preparation shall meet APWA GSP 2-06.3(3) Subgrade for Permeable Pavements.

8. All soft and yielding foundation material shall be removed and replaced with ballast per APWA GSP 4-04.2 Gravel Base and 9-03.9(2).Opt1 Permeable Ballast.

9. Permeable ballast shall meet APWA GSP 4-04.2 Gravel Base and 9-03.9(2).Opt1 Permeable Ballast.

10. All pervious surfaces shall be vacuumed immediately after completion of sawcutting to prevent clogging per Std. Detail SU-14F.

11. Geotextile fabric may be required between native soils and permeable ballast per the recommendation of the geotechnical professional. Geotextile shall be per WSDOT 9.33.2(1) Tables 1 and 2, nonwoven, moderate survivability.

12. Planting strip soils shall be per BMP L613 (see Std. Plan GSI-01), if applicable; or scarify or till subgrade to 3 inch depth. Place 3 inches of topsoil on surface and till into 5-inches of site soil. Install 3-inches of arborist wood chip mulch or as specified on plans. Topsoil layer with a minimum organic matter content of 10% dry weight in planting beds, and 5% in turf areas, and a pH from 6.0 to 8.0 or matching the pH of the original undisturbed soil.

13. Where needed, adjust ballast in planting strip to accommodate plants. Keep permeable ballast a minimum 2 feet from trunk of trees.

14. For ballast deeper than curb, provide a geomembrane barrier per Std. Plan GSI-18 between permeable ballast and road section unless adjacent road is permeable.

15. All disturbed areas not covered with hard surfaces shall be stabilized by planting or mulching.

16. For sidewalks within the North Slope Historic District area, use Std. Plan HD-NS03. See Std. Plan HD-NS01 for North Slope Historic District site map.

17. Refer to Std. Plan SU-32 for subgrade terracing, as applicable.
GENERAL NOTES:

1. Provide a separate directional curb ramp for each marked or unmarked crosswalk. Directional curb ramps are preferred over 45 degree ramps. Curb ramp location shall be placed within the width of the associated crosswalk, or as shown on the Contract Plans. The curb ramp centerline shall be parallel to the direction of the crossing. Forty-five (45) degree curb ramps shall be installed only after approval by the City's ADA Coordinator or the Street Operations Division Manager.

2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush and perpendicular to the direction of travel. There shall be no vertical discontinuity between the base of curb ramp and gutter line.

3. Do not place grates, junction boxes, access covers, or other appurtenances in front of the curb ramp or on any part of the curb ramp or turning space. Placement on or in front of ramp flares is allowed.


5. A thickened edge shall be constructed to full depth of adjacent curb along entire curb radius.

6. For sidewalk and curb ramps within the North Slope Historical District area see North Slope Historic District Site Map, HD-NS01. Apply Lamp Black 1lb per cubic yard of cement concrete or as required for discoloration in accordance with ASTM D209-81 Standard Specifications for Lamp Black pigment.

7. The running slope of a curb ramp shall not exceed 8.3% but does not require the ramp length to exceed 15 feet to avoid chasing the slope indefinitely when connecting to steep grades.

8. Curb ramp, turning space and flares shall receive a broom finish, see WSDOT Standard Specifications 8-14.

9. Return curbs, (pedestrian curbs), may only be used with landscaping or railing. Return curbs, (pedestrian curbs), shall not be used to prevent pedestrians from crossing streets.

10. All curb ramp designs shall be stamped by a Washington State licensed Professional Engineer. If meeting the current design standards is not possible, curb ramps shall be constructed to the maximum extent feasible as indicated by an Engineer's note on the stamped drawings. Rationale supporting the design variance shall be provided by the Engineer and shall include a description of the scope of work, the site-specific factors affecting compliance, and the measures implemented to improve compliance.

11. Pedestrian traffic should be aligned to the receiving curb ramp. The existing curb ramps shall be evaluated using criteria in the City's Curb Ramp Installation Matrix.

12. Consult the City's Curb Ramp Installation Matrix and the Right Of Way Restoration Policy for additional requirements.

13. Conduit for APS equipment shall be installed during curb ramp construction at all signalized intersections and at intersections where signalization is anticipated within the next 6 years. Coordinate with Public Works - Engineering, Traffic Section.

14. A Pedestrian Accessibility Control Plan shall be developed in conjunction with each project-specific Temporary Traffic Control Plan for all work in the ROW.

15. Pedestrian traffic shall NOT be directed behind the stop bar.

16. Curb ramp alignment should be consistent with crosswalk alignment.

17. Curb ramp shall be 5' minimum in width.

18. Catch basins shall be located upstream of curb ramps outside of flare/wing for new construction or when performing storm sewer upgrades.

19. For constructability purposes, the City recommends designing to less than the maximum allowable slopes.
NOTES:
See Standard Plan SU-05 for referenced notes

LEGEND
Slope in either direction

SECTION DETAIL A-A

CITY OF TACOMA
PERPENDICULAR CURB RAMP
TYPE 'A'

STANDARD PLAN NO. SU-05A
CURB RAMP/TURNING SPACE WIDTH 5'-0" MIN.
- SEE CONTRACT PLANS

CEMENT CONCRETE SIDEWALK,
SEE STANDARD PLAN SU-04

CEMENT CONCRETE PEDESTRIAN CURB
PERMITTED ADJACENT TO LANDSCAPING,
TAPER CURB, SEE NOTE 4. IF PEDESTRIAN
CURB IS NEEDED AT OTHER LOCATIONS,
RAILING MAY BE REQUIRED TO PREVENT
CROSS TRAVEL.

PLAN VIEW
(SHOWN WITH PLANTER STRIP/LANDSCAPING)

NOTES:
See Standard Plan SU-05 for
referenced notes

LEGEND
— SLOPE IN EITHER
DIRECTION

SECTION DETAIL A-A

PERPENDICULAR CURB RAMP
TYPE 'B'

STANDARD PLAN NO. SU-05B
Curb Ramp/Turning Space Width 5'-0" Min.
- See Contract Plans

Grade breaks shall be perpendicular to the direction of travel.

3/4" Expansion Joint (Typ.)

Curb and Gutter

For sidewalk widths, see standard plan SU-04 and contract plans, or match existing (Typ.)

Taper Curb (Typ.)

Detectable Warning Surface,
See Standard Plans SU-05G
Turning space flush with gutter

Cement Concrete Pedestrian Curb, See Note 4

Varies

4" (Typ.)

Turning Space

Section Detail A-A

Detectable Warning Surface,
See Standard Plan SU-05G
Grade Break
Counter Slope 5.0% Max.
Grade Break
Top of Roadway

Grade Break
8.3% Max.

Curb & Gutter,
See Note 4

18" Thickened Edge,
See Note 5

3/4" Expansion Joint (Typ.)

Section Detail B-B

Notes:
See Standard Plan SU-05 for referenced notes

Legend
___ Slope in either direction

City of Tacoma
Paralleled Curb Ramp
Type 'A'

Standard Plan No. SU-05D

Reviewed by
GMS
Public Works
Environmental Services
Tacoma Power
Tacoma Water

Approved for Publication
City Engineer
Date 8/10/10
NOTES:
1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares) or the turning area.
2. The rows of truncated domes in a Detectable Warning Surface shall be parallel with the direction of wheelchair travel.
4. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
5. The Detectable Warning Pattern shall be installed using Vanguard ADA Systems, ADA Solutions, or Armor-Tile "Cast In Place Systems," manufactured by Engineering Plastics Inc., or approved equal. Concrete shall be blocked out as required for the installation of the Detectable Warning Pattern material.
6. The Detectable Warning Pattern area shall be yellow and shall match the color of Federal Standard 595a, color number 33538.

**TRUNCATED DOME DETAILS**

**TRUNCATED DOME SPACING**

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**SECTION DETAIL A-A**

**TRUNCATED DOME**

**DETECTABLE WARNING SURFACE DETAIL**

**Curb Ramp, Turning Space**

**Pass-Through or Walkway**

**Detectable Warning Surface**

**2.0" Min. All Applications**

**Curb and Gutter**

**Ramp or Turning Space**

**Flush with Gutter**

**Match to Width of Curb Ramp, Turning Space, Pass-Through or Walkway**

**Place at Back of Curb Line, Unless Otherwise Noted**
**Detectable Warning Placement Criteria for Single Directional Curb Ramp**

**Use Location A** if distance from back of curb to grade break is less than or equal to 5 ft.

**Use Location B** if distance from back of curb to grade break is greater than 5 ft.

**Notes:**
1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares) or the turning space.
2. The edge of the Detectable Warning Surface shall be placed along the back of the curb line unless otherwise noted.
3. The Detectable Warning Surface shall be within 2" (max.) of the edge of the ramp.
4. The rows of truncated domes in the Detectable Warning Surface shall be parallel with the direction of travel.
6. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
7. The Detectable Warning Pattern shall be installed using Vanguard ADA Systems, or Armor-Tile "Cast in Place Systems" as manufactured by Engineering Plastics Inc., or approved equal. Concrete shall be blocked out as required for the installation of the Detectable Warning Pattern material. See Standard Plan SU-05G for additional information.
8. The Detectable Warning Pattern area shall be yellow and shall match the color of Federal Standard 595a, Color Number 33538 unless otherwise noted.

---

**Detectable Warning Surface Placement Guidelines**

**Standard Plan No.** SU-05H
**FLARES**
Flared sides with a slope of 10% maximum, measured parallel to the curb line, shall be provided where a pedestrian circulation path crosses the curb ramp.

**ADVISORY FLARES**
Side of ramps may be retained, providing useful directional cues. If protected from cross travel by landscaping, street furniture, poles, or equipment.

**NOTE:** City of Tacoma prefers a return curb is used only adjacent to landscaping. If return curb is needed at other locations, railing may be required to prevent cross travel.

**DETECTABLE WARNINGS**
Detectable warning surfaces complying with R304 shall be provided. Where a curb ramp, landing, or blended transition connects to a street.

**SIZE**
Detectable warning surfaces shall extend 24 inches minimum in the direction of travel and the full width of the curb ramp (exclusive of flares), the landing, or the blended transition.

**PERPENDICULAR CURB RAMPS**
Where both ends of the bottom grade break complying with R302.3.4 are 0.50 feet or less from the back of curb, the detectable warning shall be located on the ramp surface at the bottom grade break. Where either end of the bottom grade break is more than 0.50 feet from the back of curb, the detectable warning shall be located on the lower landing.

**ALIGNMENT**
The rows of truncated domes in a detectable warning surface shall be aligned to be perpendicular or radial to the grade break between the ramp, landing, or blended transition and the street.

**GRADE BREAKS**
Grade breaks at the top and bottom of perpendicular curb ramps shall be perpendicular to the direction of ramp run. At least one end of the bottom grade break shall be at the back of curb. Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet the grade breaks shall be flush.

**CROSSWALK**

R303.5 Counter SLOpes.
The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transition shall be 2% maximum.

R303.5.2 CROSS SLOPE.
The cross slope at intersections shall be 2% maximum. The cross slope at mid-block crossings shall be permitted to be warped to meet street grade.

**NOTES:**
1. Curb ramps shall be located, constructed or retrofitted in accordance with ADA Standards for Accessible Design, 28 CFR, Part 35 as supplemented by the draft public works right of way accessibility guidelines (PROWAG), the City of Tacoma standard plans and the city's curb ramp installation matrix.

2. Conduit for APS equipment shall be installed during curb ramp construction at all signalized intersections and at intersections where signalization is anticipated within the next 6 years. Coordinate with public works - engineering, traffic section.

**PROWAG SECTION 2005 DRAFT RULE IDENTIFIED AS CURRENT BEST PRACTICE IN ACCESSIBLE PEDESTRIAN DESIGN UNDER FHWA FEDERAL AID (104) REGULATIONS.**

**TRANSITION PANEL FROM RAMP TO EXISTING SIDEWALK (WHERE REQUIRED TO MATCH EXISTING SIDEWALK CROSS SLOPE). Maximum grades are not specified by PROWAG. Adjust length as needed to provide smooth transition. If proposed match line location does not fall on an existing joint in the section of sidewalk to remain, the existing walk shall be removed back to the next joint (minimum 2 feet).**

**PERPENDICULAR CURB RAMPS**

R303.1.1 RUNNING SLOPE.
The running slope shall be 0.3% maximum but shall not require the ramp length to exceed 15.0 feet.

R303.1.2 CROSS SLOPE.
The cross slope shall be 2% maximum.

R303.1.3 WIDTH.
The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 4.5 feet minimum.

R303.1.4 SURFACES.
Surfaces of curb ramps, blended transitions, and landings shall comply with A117.1, gratings, access covers; and other appurtenances shall not be located on curb ramps, landings, blended transitions and gutters within the pedestrian access route.

**FOR INFORMATIONAL PURPOSES ONLY**

**DO NOT INCLUDE IN CONTRACT SPECIFICATIONS**

**CITY OF TACOMA**
**DEPARTMENT OF PUBLIC WORKS**

PROWAG GUIDELINES
**TYPICAL PERPENDICULAR CURB RAMPS**

**DESIGN STANDARDS**

**STANDARD PLAN NO:** SU-051
R303.2.2 PARALLEL CURB RAMPS.
R303.2.2.1 RUNNING SLOPE.
THE RUNNING SLOPE SHALL BE 8.5% MAXIMUM BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FEET.
R303.2.1.2 CROSS SLOPE.
THE CROSS SLOPE SHALL BE 2% MAXIMUM.
R303.3.1 WIDTH.
THE CLEAR WIDTH OF LANDING, BLENDED TRANSITIONS, AND CURB RAMPS, EXCLUDING FLARES, SHALL BE 4.0 FEET MINIMUM.
R303.3.3 SURFACES.
SURFACES OF CURB RAMPS, BLENDED TRANSITIONS, AND LANDINGS SHALL COMPLY WITH R301 - GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.

R303.3.2 DETECTABLE WARNINGS.
DETECTABLE WARNING SURFACES COMPLYING WITH R304 SHALL BE PROVIDED, WHERE A CURB RAMP, LANDING, OR BLENDED TRANSITION CONNECTS TO A STREET.
R303.4.1 SIZE.
DETECTABLE WARNING SURFACES SHALL EXTEND 24 IN. MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDINGS OR THE BLENDED TRANSITION.
R303.4.1.3 ALIGNMENT.
THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP, LANDINGS, OR BLENDED TRANSITION AND THE STREET.

R303.4.4 GRADE BREAKS.
GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF RAMP RUN. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMPS, BLENDED TRANSITIONS, LANDINGS, AND GUTTER AREAS WITHIN THE PEDESTRIAN ACCESS ROUTE. SURFACE SLOPES THAT MEET THE GRADE BREAKS SHALL BE FLUSH.

CROSSWALK.
R305.3.2 COUNTER SLOPES.
The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transition shall be 5% maximum.
R305.2.1 CROSS SLOPE.
The cross slope at intersections shall be 2% maximum. The cross slope at mid-block crossings shall be permitted to be warped to meet street grade.

NOTES:
1. CURB RAMPS SHALL BE LOCATED, CONSTRUCTED OR RETROFITTED IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN, 28 CFR, PART 36 AS SUPPLEMENTED BY THE DRAFT PUBLIC WORKS RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG), THE CITY OF TACOMA STANDARD PLANS AND THE CITY'S CURB RAMP INSTALLATION MATRIX.
2. CONDUIT FOR ATP EQUIPMENT SHALL BE INSTALLED DURING CURB RAMP CONSTRUCTION AT ALL SIGNALIZED INTERSECTIONS AND AT INTERSECTIONS WHERE SIGNALIZATION IS ANTICIPATED WITHIN THE NEXT 5 YEARS, COORDINATE WITH PUBLIC WORKS - ENGINEERING, TRAFFIC SECTION.
R303.2.2 REFERENCE TO PROWAG SECTION, 2005 DRAFT RULE (IDENTIFIED AS CURRENT BEST PRACTICE IN ACCESSIBLE PEDESTRIAN DESIGN UNDER FHWA FEDERAL AID (204) REGULATION).

FOR INFORMATIONAL PURPOSES ONLY
DO NOT INCLUDE IN CONTRACT SPECIFICATIONS

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS
PROWAG GUIDELINES
TYPICAL PARALLEL CURB RAMP
DESIGN STANDARDS
STANDARD PLAN NO. SU-05J
NOTES:

1. The clearance between the face of curb and any obstruction, except mail boxes, shall be a minimum of 1'-6". The front of a mail box shall be 6" to 8" from the face of curb.
2. Sidewalk cafes, artwork, poles, ramps, etc., may not reduce the width of the sidewalk to less than 5' for residential streets and 7' for arterial streets and commercial areas, excluding the curb width.
3. All obstructions shall meet requirements for cane detection. See City of Tacoma Design Manual Chapter 12.
4. The following criteria shall only be used in rare circumstance when an obstruction cannot be relocated and does not allow the minimum required sidewalk width:
   a) If the sidewalk is new or replacement construction and the sidewalk cannot meet the minimum clearance requirements due to an existing obstruction then a maximum extent feasible (MEF) is required and shall be included in the Plans. Rational supporting the MEF shall be provided by the Engineer and shall include a description of the scope of work, the site-specific factors affecting compliance, and the measures implemented to improve compliance.
   b) When placing a new obstruction in an existing sidewalk and the minimum clearance requirements cannot be met, a variance shall be submitted and approved by the City's Traffic Section prior to construction.
5. See Tacoma's Design Manual Chapter 8, Pedestrian Facilities, for additional information on Pedestrian Access Routes (PARs).
NOTES:
1. Type 1 access shall be used at driveways where the planting strip width is 5' or greater.
2. Standard Concrete shall be a minimum compressive strength of 3,000 PSI.
3. All joints shall be cleaned & edged. External joints to the driveway shall be 1/2" radius. Internal joints to the driveway shall be 1/4" radius.
4. Driveways wider or narrower than shown on this plan require approval of the Director of Public Works.
5. Standard concrete driveway section shall be a brushed finish in a transverse direction to the center line of driveway.
6. Driveways wider than 20' require a center line expansion joint.
7. All expansion or isolation joints shall be full depth.
8. When trenching through a driveway access:
   a. If driveway is 20' or less in width, a full driveway replacement is required.
   b. If driveway is greater than 20' in width, a minimum 2' wide cut back over undisturbed soil is required and replacement shall extend to the nearest control joint.
9. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(3)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
10. Transition panel from new access to sidewalk shall be a minimum of 5 feet.
11. For driveway entrances within the North Slope Historical District area use Standard Plan HD-NS02. See Standard Plan HD-NS01 for map of Historical District area limits.
12. Permeable surfacing may be allowed for driveway entrances. Refer to Standard Plans PD-01 and PD-02 as applicable. Do not compact subgrade for permeable surfacing and refer to APWA GSP 2-06.3(3) Subgrade for Permeable Pavements. A soils report is required and modeling may be necessary per SWMM BMP L633.
15. A 1-1/4" Ø PVC Sch. 80 Conduit shall be installed as shown, per TMC 10.14.070. Conduit shall be buried 24 inches below finished grade.

NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 12 AND 13.

STANDARD CONCRETE SECTION DETAIL A-A
1. Use the following as a guide of when each Entrance or Access Type should be used:
   1.a. Cement Concrete Driveway Entrances Type 1 (Entrances) or Accesses Type 1 (Accesses) shall be used at driveways where the planting strip width is 5' or greater.
   1.b. Cement Concrete Driveway Entrances Type 2 (Entrances) or Access Type 2 (Accesses) shall be used at driveways and alleys where the planting strip is less than 5' wide.
   1.c. Cement Concrete Driveway Entrances Type 3 (Entrances) or Accesses Type 3 (Accesses) shall be used at alleys where the planting strip is 5' wide or greater.

2. Standard Concrete shall be a minimum compressive strength of 3,000 PSI.

3. Concrete Joints:
   3.a. All joints shall be cleaned & edged.
   3.b. All expansion or isolation joints shall be full depth.
   3.c. External joints to the driveway shall be 1/2" radius. Internal joints to the driveway shall be 1/4" radius.
   3.d. All joints shall be saw cut full depth prior to restoration and 3/8" expansion joint installed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(6)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

4. Entrances and Accesses wider or narrower than shown on this plan require approval of the Director of Public Works.

5. Entrances and Accesses shall have a brushed finish in a transverse direction to the center line of Entrance or Access.

6. Entrances or Accesses wider than 20' require a center line expansion joint.

7. When trenching through an Entrance or Access:
   7.a. If Entrance or Access is 20' or less in width, full replacement is required.
   7.b. If Entrance or Access is greater than 20' in width, a minimum 2' wide cut back over undisturbed soil is required and replacement shall extend to the nearest control joint.

8. Transition panel from new Entrance or Access to sidewalk shall be a minimum of 5 feet.

9. For Entrances or Accesses within the North Slope Historical District area use Standard Plan HD-NS02. See Standard Plan HD-NS01 for map of Historical District area limits.

10. Permeable surfacing may be allowed for Entrances or Accesses. Refer to Standard Plans PD-01 and PD-02 as applicable. Do not compact subgrade for permeable surfacing and refer to APWA GSP 2-06.3(3) Subgrade for Permeable Pavements. A soils report is required and modeling may be necessary per SWMM BMP L603.


13. A 2"
   PVC Sch. 80 Pipe with capped ends shall be installed as shown, per TMC 10.14.070. Pipe shall be buried 24 inches below finished grade and have a pull string and location wire per WSDOT 9-29.3(2)A4.

14. Detectable Warning Surface shall be placed at alleys if the ADT is greater than 700, in the downtown area, located near a high pedestrian volume area, or where there are sight distance concerns. The detectable warning pattern, if needed, shall be placed the full width of the sidewalk in accordance with City of Tacoma Standard Plan SU-05A.

15. When an existing entrance or access does not meet current ADA standards as defined by the City of Tacoma's Design Manual, the entire entrance or access shall be replaced to current ADA standards.
FOR SIDEWALK WIDTHS, SEE STANDARD PLAN SU-04 AND CONTRACT PLANS, OR MATCH EXISTING, (TYP.)

EX. SIDEWALK, TYP.

3/8" FULL DEPTH EXPANSION JOINT (TYP.) ISOLATION JOINT FOR PERVIOUS CONCRETE (TYP.)

#4 GRADE 60 REBAR EACH SIDE, 6" ON CENTER, 3" CLEARANCE EACH CONCRETE FACE

3/4" LIP WITH 3/4" R

3/8" EXPANSION JOINT

VARIABLE

CRUSHED SURFACING

COMPACTED SUBGRADE

CRUSHED SURFACING TOP COURSE, 2" DEPTH

6" (MIN) RESIDENTIAL 8" (MIN) COMMERCIAL

1 - 2% (MAX)

NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 10 AND 11 ON SU-07A.

STANDARD CONCRETE SECTION DETAIL A-A

NTS

REVIEWED BY

APPROVED FOR PUBLICATION

CITY OF TACOMA
CEMENT CONCRETE DRIVEWAY ENTRANCE AND ACCESS TYPE 1

STANDARD PLAN NO. SU-07B
NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 10 AND 11 ON SU-07A.

STANDARD CONCRETE SECTION DETAIL A-A
NOTES:
1. For stairway handrail details, refer to Standard Plan No. SU-11.
2. Concrete shall be a minimum compressive strength of 3,000 PSI.
NOTE:
For cement concrete stairway details, refer to Standard Plan No. SU-10
1/8" MIN. THICKNESS GALVANIZED STEEL. INTERIOR SIDE DIMENSIONS 1/2" GREATER THAN POST DIMENSIONS.

CLASS 3000 CONCRETE

1/2" GALVANIZED EYE BOLT W/WASHER AND NUT. RECESS NUT AND PEEP BOLT THREADS.

500# MIN. TEST GALVANIZED CHAIN ANCHORED IN CONCRETE ANCHOR WITH 6"x3/8" STEEL ROD

3"Ø MIN. DRAIN PIPE

NOTES:
1. Timber shall be douglas fir, dense construction grade, and shall be pressure treated.
2. Steel tube shall conform to ASTM A53 or ASTM A53 Grade A.
4. All steel parts shall be galvanized.

REMOVABLE BOLLARD

PAINT TOP 5" WHITE

11/2" 1"

8"x8" S4S x 5'-6"

3/4" 1 1/2"

8"x8" S4S x 4'-0"

3/4" 1"

PAINT TOP 5" WHITE

1 1/2" 2 3/4"

3 3/4"

24"

2 3/4" 3 1/2"

3 1/2" 4"

4 1/2"

PAINT TOP 5" WHITE

1 1/2" 2 3/4"

3 3/4"

24"

2 3/4" 3 1/2"

3 1/2" 4"

4 1/2"

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

CITY ENGINEER

BOLLARD DETAILS

STANDARD PLAN NO. SU-12

12 Jan 2009
NOTES:

1. 4"x4"x8' wooden posts shall be western red cedar or pressure treated wood.
2. Hardware for mounting signs shall be hot dipped galvanized 5/16" x 2" hex head lag screws. The washers shall be USS F/W 5/16" zinc.
3. The end-of-road marker shall be one of the following:
   - a marker consisting of nine red retroreflectors with a minimum 3" diameter, mounted symmetrically on a red diamond panel 24 in. on a side (OM4-1)
   - a retroreflective red diamond panel 24 in. on a side (OM4-3).
4. Provide minimum of four posts as shown.
1. All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy. See Standard Plan SU-14D for any streets exempt from this policy.

2. Temporary Surface Restoration:
Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).

Residential and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density.
   - Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.
   - Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench.

Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City’s Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.

8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.
   Streets and courts 20 feet or less in width and all alleys are considered one-lane streets.
   Non-arterial streets and courts greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.
   Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer on a case by case basis.

9. Transverse construction joints terminate at the edge of the 2' cut back.

10. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.

11. Dowel in accordance with WSDOT Standard Plan A-60.10-00 for arterials, industrial areas, and/or roads with bus traffic. For residential streets the dowel bars may be reduced to 1-inch in diameter. In lieu of dowels, full panel replacement is acceptable.
NOTES:

1. All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy. See Standard Plan SU-14E for any streets exempt from this policy.

2. Temporary Surface Restoration:
   Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   Residential and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either hot-mix asphalt or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with hot-mix asphalt unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grading or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)(B) for cement concrete surfaces and 5-04.3(5)(C) for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density.
   Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.
   Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench.
   Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)(A) prior to placing any new pavement surfaces.

8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.
   Streets and courts 20 feet or less in width and all alleys are considered one-lane streets.
   Non-arterial streets and courts greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.
   Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer on a case by case basis.

9. Transverse construction joints terminate at the edge of the 2" cut back.

10. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.

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HMA PAVEMENT CL. 1/2" PG 64-22 MATCH EXISTING THICKNESS, 2" MIN

NEW CEMENT CONC.
BASE PAVEMENT
MATCH EXISTING
THICKNESS, 6" MAX

CONSTRUCTION JOINT,
SEE NOTES 6 & 9

EXISTING ASPHALT
PAVEMENT

EXISTING BRICK,
COBBLESTONE,
OR BRICK PAVING

EXISTING SAND CUSHION

EXISTING CEMENT
CONCRETE PAVEMENT

2" MIN. CUT BACK OVER
UNDISTURBED SOIL

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TYPICAL PAVEMENT RESTORATION FOR ASPHALT OVER RIGID BASE BRICK OR STONE BLOCK PAVEMENT
NOTES:

1. All pavement restoration work shall also meet the requirements of the City of Tacoma’s Right of Way Restoration Policy.

2. Temporary Surface Restoration:
   Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   Residential areas and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

6. Permanent Panel Replacement:
   Arterials, industrial areas and/or roads with bus traffic:
   100% panel replacement is required for all affected panels. Monolithic curbs will be poured at time of panel replacement.
   Residential and Alleys: Panels cut greater than ⅛ the panel length, width, or total area, including the 2-foot cut back, will require 100% panel replacement. Panels cut less than ⅛ the panel length, width, or total area, including the 2-foot cut back will require 50% panel replacement. Three-piece panels are not acceptable and will require 100% panel replacement.

7. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.

8. Dowel in accordance with WSDOT Standard Plan A-60.10-00 for arterials, industrial areas, and/or roads with bus traffic. In residential streets the dowel bars may be reduced to 1-inch in diameter. In lieu of dowels, full panel replacement is acceptable.
1. This Standard Plan shall only apply to streets that are exempt from the City of Tacoma's Restoration Policy. See Standard Plan SU-14A for any streets not exempt from this policy.

2. Temporary Surface Restoration:
   - Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   - Residentials and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)b for cement concrete surfaces and 5-04.3(5)c for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density. Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City’s Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. If remaining pavement adjacent to the patch is less than 3’ wide, remove and replace to match existing pavement.

8. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)a prior to placing any new pavement surfaces.

9. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.

10. Dowel in accordance with WSDOT Standard Plan A-60.10-00 for arterials, industrial areas, and/or roads with bus traffic. For residential streets the dowel bars may be reduced to 1-inch in diameter. In lieu of dowels, full panel replacement is acceptable.
NOTES:

1. This Standard Plan shall only apply to streets that are exempt from the City of Tacoma’s Restoration Policy. See Standard Plan SU-14B for any streets not exempt from this policy.

2. Temporary Surface Restoration:
   - Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   - Residential and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either hot-mix asphalt or cold-mix asphalt.
   - Temporary patches between October 1st and March 31st shall be made with hot-mix asphalt unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density.
   - Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City’s Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.

8. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.
NOTES:

1. To be used only where abutting surfaces are pervious concrete or as directed in writing by City of Tacoma. Permeable roads may be required to be patched in an alternate material as directed in writing by City of Tacoma.

2. All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy.

3. Temporary Surface Restoration:
   Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   Residential and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt.
   Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

4. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

5. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

6. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(9)B for cement concrete surfaces. Joint sealant shall not migrate beyond run-out areas.

7. All pervious surfaces shall be vacuumed immediately after completion of sawcutting to prevent clogging.

8. Permanent Panel Replacement:
   Arterials, industrial areas and/or roads with bus traffic:
   100% panel replacement is required for all affected panels. Monolithic curbs will be poured at time of panel replacement.

   Residential and Alleys: Panels cut greater than ½ the panel length, width, or total area, including the 2-foot cut back, will require 100% panel replacement. Panels cut less than ½ the panel length, width, or total area, including the 2-foot cut back will require 50% panel replacement.
   Three-piece panels are not acceptable and will require 100% panel replacement.

9. Pervious concrete pavement mix shall be approved in writing by the City of Tacoma.

10. Where geotextile fabric or geomembrane liner exist under the permeable ballast, replace with same material. Additional width of excavation may be necessary to overlay fabric or liner. Where a liner is used to create a watertight barrier, repair per manufacturer's specifications to maintain a watertight barrier.
1. All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration Policy. See Standard Plan SU-15B for any streets exempt from this policy.

2. Temporary Surface Restoration:
   - Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).
   - Residentials and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undercut edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density.
   - Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.
   - Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench.

   Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.

8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.

   Streets and courts 20 feet or less in width and all alleys are considered one-lane streets. Non-arterial streets and courts greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.

   Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer.

9. Transverse construction joints terminate at the edge of the 2' cut back.

10. HMA pavement shall not be placed over CDF until approved by the City.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>PAVEMENT REPLACEMENT DEPTH</th>
<th>IN CUT BACK ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MIN.</td>
<td>MAX. 6&quot;</td>
</tr>
<tr>
<td>ARTERIALS, INDUSTRIAL AREAS &amp; ROADS WITH BUS TRAFFIC</td>
<td>MATCH EXISTING +1&quot;, OR 4&quot;, WHICHEVER IS GREATER</td>
<td></td>
</tr>
<tr>
<td>RESIDENTIALS AND ALLEYS</td>
<td>MATCH EXISTING +1&quot;, OR 3&quot;, WHICHEVER IS GREATER</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

CUT BACK ZONE

2" MIN.

CONSTRUCTION JOINT, SEE NOTES 8 & 9

EXISTING ASPHALT OR OIL MAT PAVEMENT

CRUSHED SURFACING TOP COURSE (CSTC), MATCH EXISTING THICKNESS, 8" MIN

HMA PAVEMENT CL. 1/2" PG 64-22, SEE TABLE 1

2" MIN. CUT BACK OVER UNDISTURBED SOIL

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

12 Jan 2009

TYPICAL PAVEMENT RESTORATION FOR ASPHALT CONCRETE/OIL MAT PAVEMENT

STANDARD PLAN NO. SU-15A
1. This Standard Plan shall only apply to streets that are exempt from the City of Tacoma's Restoration Policy. See Standard Plan SU-15A for any streets not exempt from this policy.

2. Temporary Surface Restoration:
   Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA).

   Residuals and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.

3. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.

4. Where existing pavement defects are in close proximity to the new cut, the inspector may require additional pavement removal to eliminate the pavement defect.

5. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.

6. Final compaction of HMA shall be 91% of maximum density. Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City's Construction Division. Tests shall be completed and reports identifying the project number submitted to the City Construction Division within 48 hours of test.

7. All joints between the new and original asphalt pavement shall be sealed with hot asphalt or asphalt emulsion and covered with dry paving sand before the asphalt solidifies. Existing surfaces shall be prepared in accordance with WSDOT Standard Specification 5-04.3(5)A prior to placing any new pavement surfaces.

8. HMA pavement shall not be placed over CDF until approved by the City.

9. If remaining pavement adjacent to the patch is less than 3' wide, remove and replace with asphalt concrete pavement to match existing (minimum 2").

---

**TABLE 1**

<table>
<thead>
<tr>
<th>PAVEMENT REPLACEMENT DEPTH IN CUT BACK ZONE</th>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTERIALS, INDUSTRIAL AREAS &amp; ROADS WITH BUS TRAFFIC</td>
<td>MATCH EXISTING +1&quot;, OR 4&quot;, WHICHEVER IS GREATER</td>
<td>6&quot;</td>
</tr>
<tr>
<td>RESIDENTIALS AND ALLEYS</td>
<td>MATCH EXISTING +1&quot;, OR 3&quot;, WHICHEVER IS GREATER</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

---

**CUT BACK ZONE**

**SAW CUT**

**HMA PAVEMENT**

**CRUSHED SURFACING TOP COURSE (CSTC), MATCH EXISTING THICKNESS, 8" MIN**

**EXISTING ASPHALT OR OIL MAT PAVEMENT**

**12" MIN. CUT BACK OVER UNDISTURBED SOIL**

---

**APPROVED FOR PUBLICATION**

**TYPICAL PAVEMENT RESTORATION FOR ASPHALT CONCRETE/OIL MAT PAVEMENT**

**STANDARD PLAN NO. SU-15B**

---

**CITY OF TACOMA**

**DEPARTMENT OF PUBLIC WORKS**

**CITY ENGINEER**

**DATE**

**7/17/09**
NOTES:
1. To be used only where abutting surfaces are porous asphalt or as directed in writing by City of Tacoma. Permeable roads may be required to be patched in an alternate material as directed in writing by City of Tacoma.
2. All pavement restoration work shall also meet the requirements of the City of Tacoma’s Right of Way Restoration Policy. For any streets exempt from this policy, compliance with notes 8 and 9 is not required, compliance with note 12 is required.
3. Temporary Surface Restoration: Arterials, industrial areas and/or roads with bus traffic: Temporary patches shall be compacted and leveled to a minimum of 3-inches of hot-mix asphalt (HMA). Residentials and alleys: Temporary patches shall be compacted and leveled to a minimum of 2-inches of either HMA or cold-mix asphalt. Temporary patches between October 1st and March 31st shall be made with HMA unless otherwise approved.
4. All permanent final patches shall be rectangular in shape and constructed parallel and perpendicular to the road centerline.
5. Where existing pavement defects are in close proximity to the new cut, the City Inspector may require additional pavement removal to eliminate the pavement defect.
6. The final cut edge of paved surfaces shall be smooth and straight, consistent with grinding or saw cutting devices. No jagged, broken or undermined edges are allowed. Cutting wheel run-out beyond the limits of the opening shall be filled in accordance with WSDOT Standard Specification 5-04.3(5)C for asphalt concrete surfaces. Joint sealant shall not migrate beyond run-out areas.
7. Final compaction of porous HMA shall meet APWA GSP 5-04.3(10)A General. Isolated patches: Minimum 1 test per patch up to 150 square feet, and 1 test required every additional 300 square feet, thereafter.

Trench patches: 1 test every 150 linear feet of trench with a minimum of 2 tests per trench. Testing shall be performed by a certified independent testing laboratory or certified tester, as approved by the City’s Inspector. Tests shall be completed and reports identifying the project number submitted to the City’s Inspector within 48 hours of test.

8. Longitudinal construction joints shall only be located at the center or edge of affected lanes.
Roadways 20 feet or less in width and all alleys are considered one-lane streets. Non-arterial roadways greater than 20 feet in width with no traffic channelization are considered two-lane streets with one-lane either side of the centerline of the street.
Non-arterial streets greater than 32 feet in width with no traffic channelization may be considered three lane streets upon prior approval from the City Engineer.
9. Transverse construction joints terminate at the edge of the 2’ cut back.
10. Porous HMA and Asphalt Treated Permeable Base (ATPB) pavement shall not be placed over CDF until approved by the City.
11. Where geotextile fabric or geomembrane liner exist under the permeable ballast, replace with same material. Additional width of excavation may be necessary to overlay fabric or liner. Where a liner is used to create a watertight barrier, repair per manufacturer’s specifications and to maintain a watertight barrier.
12. If remaining pavement adjacent to the patch is less than 3’ wide, remove and replace asphalt concrete pavement to match existing (minimum 2”). This note only applies to roads not subject to the City of Tacoma’s Restoration Policy.
13. All pervious surfaces shall be vacuumed immediately after completion of sawcutting to prevent clogging.

### TABLE 1

<table>
<thead>
<tr>
<th>PAVEMENT REPLACEMENT DEPTH IN CUT BACK ZONE</th>
</tr>
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<tbody>
<tr>
<td>ARTERIALS &amp; INDUSTRIAL AREAS</td>
</tr>
<tr>
<td>RESIDENTIALS AND ALLEYS</td>
</tr>
</tbody>
</table>

![Diagram of pavement restoration](image)

**CUT BACK ZONE**

**CONSTRUCTION JOINT, SEE NOTE 8**

**EXISTING POROUS ASPHALT**

**EXISTING ATPB**

**EXISTING PERMEABLE BALLAST**

**PROPOSED PERMEABLE BALLAST (MATCH EXISTING PERMEABLE BALLAST THICKNESS AND GRADATION)**

**ASPHALT TREATED PERMEABLE BASE (ATPB)**

**POROUS HMA PAVEMENT PG 70-22ER, SEE TABLE 1**

## Reviews

**REVIEWED BY**

- [M.S.](name) PUBLIC WORKS
- [M.S.](name) ENVIRONMENTAL SERVICES
- [TACOMA POWER](name)
- [TACOMA WATER](name)

**APPROVED FOR PUBLICATION**

- [CITY ENGINEER](name)
- [DATE] 4/1/2016

**CITY OF TACOMA**

**TYPICAL PAVEMENT RESTORATION FOR POROUS ASPHALT PAVEMENT**

**STANDARD PLAN NO.** SU-15C
NOTES:
1. Provide uniform support under barrel and provide pockets in bedding for pipe bells.
2. Hand tamp under haunches.
3. Trench width shall be as specified in Section 2-09.4 of the WSDOT Standard Specifications.
4. Pipe zone backfill and backfill above pipe zone shall meet the material requirements of WSDOT Standard Specification Section 9-03.12(2) for gravel backfill for walls.
5. All trenches shall be compacted in accordance with SU-28.
6. Pipe zone bedding shall meet the material requirements of WSDOT Standard Specification Section 9-03.9(3) for crushed surfacing top course.
NOTES:
1. For details showing grade ring, ladder, steps, handholds and top slabs, see Standard Plan No. SU-21.
2. Non-reinforced concrete in channel and shelf shall be Class 3000. All precast concrete shall be Class 4000.
3. Rubber gaskets shall be used in tongue and groove joints of pre-cast sections.
4. A flexible pipe-to-manhole connector shall be employed in all connections of rigid and flexible pipes to new precast concrete manholes. The connector shall be "Kor-N-Seal" with "Wedge Korband" manufactured by NPC, Inc., or approved equal.
5. Base reinforcing steel shall be per manufacturer's recommendation.

MANHOLE DIMENSION TABLE

<table>
<thead>
<tr>
<th>INSIDE DIAMETER</th>
<th>MINIMUM WALL THICKNESS</th>
<th>MINIMUM BASE THICKNESS</th>
<th>MAXIMUM HOLE SIZE</th>
<th>MINIMUM DISTANCE BETWEEN HOLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>48&quot;</td>
<td>4&quot;</td>
<td>6&quot;</td>
<td>36&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>54&quot;</td>
<td>4 1/2&quot;</td>
<td>8&quot;</td>
<td>42&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>60&quot;</td>
<td>5&quot;</td>
<td>8&quot;</td>
<td>48&quot;</td>
<td>8&quot;</td>
</tr>
</tbody>
</table>

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS
APPROVED FOR PUBLICATION

MANHOLE-TYPE 1
48", 54" AND 60"

STANDARD PLAN NO. SU-17
NOTES:
1. For details showing grade ring, ladder, steps, handholds and top slabs, see Standard Plan No. SU-21.
2. Non-reinforced concrete in channel and shelf shall be Class 3000. All precast concrete shall be Class 4000.
3. Rubber gaskets shall be used in tongue and groove joints of pre-cast sections.
4. A flexible pipe-to-manhole connector shall be employed in all connections of rigid and flexible pipes to new precast concrete manholes. The connector shall be "Kor-N-Seal" with "Wedge Korband" manufactured by NPC, Inc., or approved equal.
5. Base reinforcing steel shall be per manufacturer's recommendation.

MANHOLE DIMENSION TABLE

<table>
<thead>
<tr>
<th>MANHOLE TYPE 2</th>
<th>72&quot; AND GREATER</th>
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</thead>
<tbody>
<tr>
<td>INSIDE DIA.</td>
<td>MIN. WALL THICK.</td>
</tr>
<tr>
<td>72&quot;</td>
<td>6&quot;</td>
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<tr>
<td>84&quot;</td>
<td>8&quot;</td>
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<tr>
<td>96&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>108&quot;</td>
<td>10&quot;</td>
</tr>
<tr>
<td>120&quot;</td>
<td>11&quot;</td>
</tr>
</tbody>
</table>
NOTES:
1. For details showing grade ring and top slabs, see Standard Plan No. SU-21.
2. Non-reinforced concrete in channel and shelf shall be Class 3000. All precast concrete shall be Class 4000.
3. Rubber gaskets shall be used in tongue and groove joints of pre-cast sections.
4. A flexible pipe-to-manhole connector shall be employed in all connections of rigid and flexible pipes to new precast concrete manholes. The connector shall be "Kor-N-Seal" with "Wedge Korband" manufactured by NPC, Inc., or approved equal.
5. Manholes shall have the access hole centered over the channel on the upstream side of the manhole.
6. Base reinforcing steel shall be per manufacturer's recommendation.

MANHOLE DIMENSION TABLE

<table>
<thead>
<tr>
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<td>11&quot;</td>
<td>12&quot;</td>
<td>48&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>
NOTES:

1. Existing pipe shall be supported at all times.
2. No weight of the precast unit shall bear on the existing pipe.
3. Concrete for cast-in-place base shall be Class 4000.
4. Cast-in-place base shall be poured to encase the precast unit.
5. Precast manhole section shall be installed in accordance with the Standard Plan for the specified manhole size and type.
6. Additional manhole sections shall not be installed until concrete base has set for 12 hours.
7. The existing main shall be left in place and the top portion of the main shall be removed. The bottom portion shall be tied in as the channel of the new manhole.
8. Grout all openings to ensure water tight structure.
NOTES:
1. Covers shall have the word "SANITARY" in 2 inch raised letters when used with sanitary sewer installations, or "STORM" when installed with storm sewers. All covers shall have the words "CITY OF TACOMA" in 1-1/2 inch raised letters and the words "CONFINED SPACE" in 1-inch raised letters.
2. Lids must be interchangeable, any lid shall fit any and all frames.
3. Frame and cover shall be designed for H-20 loading.
4. Frame shall be grey-iron conforming to the requirements of AASHTO M 105, grade 30B.
5. Covers shall be ductile iron conforming to ASTM A 536, grade 80-55-06.
6. Per WSDOT Standard Specification 9-05.15, metal castings shall not be dipped, painted, welded, plugged, or repaired.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

CITY ENGINEER

MANHOLE FRAME AND COVER

STANDARD PLAN NO. SU-22
NOTES:
1. Romac style "CB" sewer saddle or approved equal.
2. Core drill sewer main.
3. Portions of the City's sanitary sewer system have been lined.
   If a lined pipe is encountered during connection of the new side sewer, the Construction Division shall be contacted at (253) 591-5760 for further instructions.
4. Sewer laterals shall not extend beyond the interior wall of the sanitary sewer main.
CAST IRON FRAME AND COVER, SEE DETAIL MATCH EXISTING GRADE

12" Ø PVC PIPE, SDR 35

6" PVC PIPE CLEANOUT RISER

6" PVC PIPE

SEVERAL CONCRETE COLLAR

TO MAIN SIDE SEWER

SEE STANDARD BEDDING DETAIL

CLEANOUT DETAIL
NOT TO SCALE

NOTE:
When no curb and gutter or sidewalk exist, locate cleanout in future planting strip.

FRAME AND COVER DETAIL
NOT TO SCALE

WEDGE CURB

CLEANOUT

TYPICAL ALLEY SECTION

CURB & GUTTER

PLANTING STRIP

SIDEWALK

TYPICAL SIDEWALK SECTION

TYPICAL COMBINATION SIDEWALK SECTION

STANDARD CLEANOUT LOCATION
NOT TO SCALE

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

SIDE SEWER CLEANOUT AND COVER DETAIL

STANDARD PLAN NO. SU-24

CITY ENGINEER

DATE

JASON PEARY

12 JAN 2009
PROGRESSION OF WORK

PRIOR TO EXCAVATING OR RESURFACING:
Contractor shall:
Remove frame and risers to a depth 8-inches below subgrade.
Install steel protective plate in accordance with Detail A.
Reference the location of the utility structure.

CONSTRUCTION OF SURFACING:
Gravel surfacing:
Install base materials and gravel over protective steel plate.
Asphalt surfacing:
Install base materials and asphalt over protective steel plate.
Concrete surfacing:
Adjust frame and grate to final grade prior to placing concrete surfacing.

UPON COMPLETION OF SURFACING:
The asphalt concrete pavement or gravel surfacing shall be removed in a neat circle in accordance with Detail B.
The location of the asphalt or gravel removal shall be based upon the reference location established by the Contractor.
Crushed surfacing and base materials shall be removed and disposed of to allow the removal of the steel protective plate.
The structure shall be adjusted to finish grade utilizing the same methods of construction as specified for new construction in Section 7-05.
For hot mix asphalt, the area shall then be backfilled with Class 3000 cement concrete to an elevation of 3 to 4 inches below the finished pavement surface. 24-hours after placing the concrete, HMA pavement Cl. 3/8" PG 64-22 shall be placed in accordance with Standard Plan No. SU-15.
For non-paved surfaces, the area shall be backfilled with Class 3000 cement concrete to an elevation of 3 to 4 inches below the top of the casting and then backfilled with crushed surfacing top course and compacted.

NOTE:
All general provisions, construction and warranty requirements of the Right of Way Restoration Policy will be followed.
EXISTING SURFACES SHALL BE PREPARED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 5-04.3(5) PRIOR TO PLACING ANY NEW PAVEMENT SURFACES

NOTES:

1. The existing pavement shall be cut full depth with an eight inch diameter core drill. The subbase material shall be removed using a vacuum excavator, keeping the excavation as minimal as possible.

2. Backfill the excavation with a six inch cushion of crushed rock over the utility then place the remaining void with CDF or compacted CSTC.

3. For asphalt concrete streets, repair the cored pavement section with HMA Class ½" PG 64-22 and seal the joint.

4. For cement concrete pavement streets, replace the cored section with Class 6000 cement concrete.

5. If excavation is larger than 8" core, restoration shall comply with the Right of Way Restoration Policy.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

POTHOLING

CITY ENGINEER

STANDARD PLAN NO. SU-27
COMPACTION TESTING REQUIREMENTS

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>TESTING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURFACE (BELOW HMA)</td>
<td>N/A</td>
</tr>
<tr>
<td>1 TO 4 FEET (OR MIN 18 IN. ABOVE PIPE)</td>
<td>1 EVERY 12 INCHES</td>
</tr>
<tr>
<td>&gt; 4 FEET TO BOTTOM OF TRENCH</td>
<td>NO SPECIFIC REQUIREMENT - MAY BE REQUIRED BY COT INSPECTOR FOR VERIFICATION OF COMPACTION</td>
</tr>
</tbody>
</table>

A. TESTING SHALL BE PERFORMED BY A CERTIFIED INDEPENDENT TESTING LABORATORY OR A CERTIFIED TESTOR AS APPROVED BY THE CITY'S CONSTRUCTION DIVISION. THE COST OF TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. TESTS SHALL BE COMPLETED AND REPORTS IDENTIFYING THE PROJECT NUMBER SUBMITTED TO THE CONSTRUCTION DIVISION WITHIN 48 HOURS OF TESTS.

B. ONLY ONE COMPACTION TEST WILL BE REQUIRED FOR MULTIPLE TRENCHES WITHIN A 150 SF AREA PROVIDED COMPACTION PROCEDURES ARE THE SAME.

C. EACH LIFT SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY, AS VERIFIED BY COMPACTION TESTING, BEFORE PROCEEDING TO THE NEXT LIFT. COT INSPECTOR MAY REQUIRE EXCAVATION AND REMOVAL OF SOIL WHERE COMPACTION IS IN QUESTION.

NOTES:
1. Compact backfill material in max. 12 in. lifts. Compact backfill material to 95% max. modified proctor density (ASTM 1557) except directly over pipe, hand tamp only.
2. Native backfill will require laboratory testing to determine max. modified proctor density. Imported backfill will require submittal of proctor test results from supplier.
3. See WSDOT Standard Specification Section 2-09.3(1)E for material requirements on "Controlled Density Fill" (CDF). CDF may be used for trenches less than 24 in. wide or as approved by the City Engineer. CDF shall be vibrated/compacted.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

TRENCH BACKFILL
COMPACTION REQUIREMENTS

CITY ENGINEER
DATE

STANDARD PLAN NO. SU-28
NOTES:
1. For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.
2. No mesh reinforcement to be used for pervious sidewalks.
3. Storm pipe shall be per the City Stormwater Management Manual Volume 3 for pipes within the right-of-way.

REVIEWS BY

PUBLIC WORKS
NA
TACOMA POWER
NA
TACOMA WATER

ENVIRONMENTAL SERVICES

APPROVED FOR PUBLICATION

CITY OF TACOMA
STORM PIPE THROUGH
CONCRETE CURB

STANDARD PLAN NO. SU-29
NOTES

1. For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.

2. No mesh reinforcement shall be used in pervious sidewalks.

3. Storm pipe material shall be ductile iron per the City Stormwater Management Manual Volume 3, for pipes within the Right-of-Way.
NOTES:
1. The intent of this design is to facilitate the compaction of hot mix asphalt pavement adjacent to a drainage structure.
2. The centerline of the drainage structure may differ from the centerline of the frame and grate.

SECTION DETAIL A-A

FACE OF CURB
2'-10½'

CENTERLINE OF FRAME & GRATE - SEE NOTE 2

MATCH ROADWAY SLOPE
SLOPE THE GUTTER PAN DOWN TO THE RECTANGULAR FRAME

TOP OF ROADWAY
VARIES

RECESS ¾"

ADJUSTMENT SECTION - NOT INCLUDED IN CURB AND GUTTER BID ITEM

DRAINAGE STRUCTURE - NOT INCLUDED IN CURB AND GUTTER BID ITEM

CEMENT CONCRETE CURB AND GUTTER PAN

CITY OF TACOMA

APPROVED FOR PUBLICATION

CITY ENGINEER

DATE

8/16/16

STANDARD PLAN NO. SU-30

REVIEWED BY

GMS

PUBLIC WORKS

ENVIROMENTAL SERVICES

TACOMA POWER

TACOMA WATER

NA

NA
NOTES:

1. Permeable ballast shall meet APWA GSP 4-04.2 Gravel Base and 9-03.9(2) Permeable Ballast: Opt1 and shall be installed per APWA GSP 4-04.3(3) Shaping and Compaction.
2. Minimum surface longitudinal slope shall be 0.5%.
3. Geomembrane barrier shall provide an impermeable barrier between standard and permeable section. Geomembrane may also be required at the shoulder side of the road. It shall be installed 1" below finished grade of surfacing, as shown. Alternatively, the liner shall fold over the permeable ballast a minimum of 6". Geomembrane barrier seams shall overlap at least 18" or per manufacturer's recommendations. Geomembrane barrier shall extend the length of the permeable section when adjacent to standard pavement. See Std. Plan GSI-18.
4. Geotextile to be provided when recommended by geotechnical professional and shall be required when fines in native subgrade exceed 7% on the #200 sieve.
5. Geotextile for separation per WSDOT 9.33.2(1), woven, Table 3 and installed per WSDOT 2-12.3(1). Geotextile under sidewalk may be same as under road or WSDOT 9.33.2(1), Tables 1 and 2, nonwoven, moderate survivability.
6. See Std. Plan PD-01 for minimum pavement section.
7. Planting strip soils shall be per BMP L613 (see Std. Plan GSI-01), if applicable; or scarify or till subgrade to 3-inch depth; place 3-inches of topsoil on surface and till into 5-inches of site soil. Install 3-inches of arborist wood chip mulch or as specified on plans. Topsoil layer with a minimum organic matter content of 10% dry weight in planting beds, and 5% in turf areas, and a pH from 6.0 to 8.0 matching the pH of the original undisturbed soil.
8. Permeable pavement surfacing shall meet APWA GSP 5-04.3 Construction Requirements Porous Asphalt (PiINA/PFWA) Acceptance Infiltration Test for porous asphalt or 5-08.3(6)A Infiltration Rate of the Placed Pavement for pervious concrete.
9. Permeable ballast may be extended under curb and sidewalk when approved.
NOTES:

1. Permeable ballast shall meet APWA GSP 4-04.2 Gravel Base and 9-03.9(2) Permeable Ballast Opt1 and shall be installed per APWA GSP 4-04.3(5) Shaping and Compaction.

2. Minimum surface longitudinal slope shall be 0.5%.

3. Geomembrane barrier shall provide an impermeable barrier between standard and permeable section. Geomembrane may also be required at the shoulder side of the road. It shall be installed 1" below finished grade of surfacing, as shown. Alternatively, the liner shall fold over the permeable ballast a minimum of 6". Geomembrane barrier seams shall overlap at least 18" or per manufacturer's recommendations. Geomembrane barrier shall extend the length of the permeable section when adjacent to standard pavement. See Std. Plan GSI-18.

4. Geotextile to be provided when recommended by geotechnical professional and shall be required when fines in native subgrade exceed 7% on the #200 sieve.

5. Geotextile for separation per WSDOT 9.33.2(1), woven, Table 3 and installed per WSDOT 2-12.3(1). Geotextile under sidewalk may be same as under road or WSDOT 9.33.2(1), Tables 1 and 2, nonwoven, moderate survivability.

6. See Std. Plan PD-01 for minimum pavement section.

7. Planting strip soils shall be per BMP L013 (see Std. Plan GSI-01), if applicable; or scarify or till subgrade to 3-inch depth; place 3-inches of topsoil on surface and till into 5-inches of site soil. Install 3-inches of arborist wood chip mulch or as specified on plans. Topsoil layer with a minimum organic matter content of 10% dry weight in planting beds, and 5% in turf areas, and a pH from 6.0 to 8.0 or matching the pH of the original undisturbed soil.

8. Permeable pavement surfacing shall meet APWA GSP 5-04.3 Construction Requirements Porous Asphalt (PHMA/PWMA) Acceptance Infiltration Test for porous asphalt or 5-06.3(6)A Infiltration Rate of the Placed Pavement for pervious concrete.

9. Permeable ballast may be extended under curb and sidewalk when approved, see Std. Plan SU-31b.
NOTES:
1. For finish grade no steeper than 10%.
2. Geotextile to be provided between native soil and permeable ballast when recommended by geotechnical professional and shall be required when fines in native subgrade exceed 7% on the #200 sieve.
3. Geotextile for separation under roadways shall be per WSDOT 9.33.2(1), woven, Table 3 and installed per WSDOT 2-12.3(1). Geotextile under sidewalk may be same as under road or WSDOT 9.33.2(1), Tables 1 and 2, nonwoven, moderate survivability.
4. See Std. Plans SU-31a, b and c for permeable roadway sections.
5. See Std. Plans SU-04a and b for permeable sidewalk sections.
NOTES:
1. Location on mains per plan sheet.
2. Review design with the City for utilities greater than 36 inches in diameter.
3. For service lines, install trench dams at approximate back of walk where utility services are installed beyond the permeable ballast section.
4. Ductile iron pipe shall be encased in a polyethylene sleeve, meeting the requirements of American Waterworks Association (AWWA).
NOTES:
1. Surface mounting of sign posts, especially within traffic islands or medians, is only allowable with special authorization from the city's traffic engineering group. (Exception: Surface mounting of flexible post object markers within islands or medians is permitted).
2. If finished ground line is a hard surface, then compacted native backfill material shall be concrete with the top of foundation being smooth, dense, and uniform to finished ground line.

SIGN SUPPORT DETAIL FOR STEEL SIGN POST

- SIGN POST - 2" SQ, 12-GAGE STEEL TUBE
- SIGN BRACE - WHEN REQUIRED
- DRIVE RIVET OR CORNER BOLT WITH NUT AND WASHERS - TWO REQUIRED
- TOP OF LOWER SQUARE TUBE
- FINISHED GROUND LINE SEE NOTE 2
- BOLT STOP FOR SIGN POST
- LOWER SIGN POST SUPPORT - 2½" SQ, 12-GAGE STEEL TUBE
- COMPACTED NATIVE BACKFILL MATERIAL OR ALLOWABLE ALTERNATIVE PER WSDOT SPECIFICATIONS (9-03.2(3) OR 9-04.2(4))
  ALSO SEE NOTE 2.

BASE PLATE DETAIL FOR STEEL SIGN POST SURFACE MOUNTING (SEE NOTE 1)

- Ø½" HOLES 4 PLACES
- 2½"
- 2½"
NOTES:

1. Barricades shall meet the design criteria of MUTCD section 6F.68 for a Type 3 barricade, except that the colors of the stripes shall be retroreflective (Type IV or better) white and retroreflective (Type IV or better) red.

2. Barricade section shall extend to limits of the roadway surface relying on the least number of posts while still providing equidistant-spacing in accordance with the above detail.

3. Sign sheet shall be bolted to (or integral to) the cross member using 5/8-inch galvanized bolts with fender washers. Securing hardware shall not consist of or include nails, lag bolts, or screws.

4. Panel material shall be high density polyethylene (HDPE), or approved equivalent such as #2 or better Douglas Fir (Untreated).

CITY OF TACOMA

PERMANENT ROADWAY TERMINUS
TYPE 3 BARRICADE

STANDARD PLAN NO. SU-35
SEE STANDARD PLANS SU-05 SERIES FOR CURB RAMP SPECIFICATIONS

CURBING MAY BE USED WHEN ADJACENT TO LANDSCAPING

DISABILITY PARKING OR PASSENGER LOADING ONLY POLE & SIGN, PER STANDARD PLAN SU-34 AND SU-36E

4" WHITE/YELLOW PARKING STALL "T" MARKERS (TYP.)

SEE STANDARD PLANS SU-05 SERIES FOR CURB RAMP SPECIFICATIONS

FLARES/WINGS SHALL BE USED WHEN ADJACENT TO CONCRETE

DISABILITY PARKING OR PASSENGER LOADING ONLY POLE & SIGN, PER STANDARD PLAN SU-34 AND SU-36E

4" WHITE/YELLOW PARKING STALL "T" MARKERS (TYP.)

DISABILITY SYMBOL FOR DISABILITY PARKING ONLY, PER STANDARD SU-36E

INSTALL VALLEY GUTTER, PER STANDARD PLAN SU-03.

4" WHITE/YELLOW PARKING STALL "T" MARKERS (TYP.)

CURB & GUTTER PARKING LANE

CITY OF TACOMA
PARALLEL DISABILITY PARKING STALL OR PASSENGER LOAD ZONE WITH BULB-IN ACCESS AISLE

STANDARD PLAN NO. SU-36C
BACK-IN ANGLE PARKING
ADJACENT SIDEWALK SHOWN

10.33" (TYP.)
105"
60"
16"
16" WHITE STRIPE
4" WHITE STRIPE
8' MIN.

SUPPLEMENTAL FACE OF CURB (FULL OR PARTIAL HEIGHT) PAINT. WHITE FOR DISABILITY PARKING, YELLOW FOR PASSENGER LOAD ZONE.
4" YELLOW STRIPE ADJACENT TO STALL STRIPING FOR PASSENGER LOAD ZONE.
DISABILITY SYMBOL FOR DISABILITY PARKING ONLY, PER STANDARD SU-36E

HEAD-IN ANGLE PARKING
ADJACENT PLANTING STRIP SHOWN

10.33" (TYP.)
105"
60"
16"
16" WHITE STRIPE
4" WHITE STRIPE
8' MIN.

SUPPLEMENTAL FACE OF CURB (FULL OR PARTIAL HEIGHT) PAINT. WHITE FOR DISABILITY PARKING, YELLOW FOR PASSENGER LOAD ZONE.
4" YELLOW STRIPE ADJACENT TO STALL STRIPING FOR PASSENGER LOAD ZONE.
DISABILITY SYMBOL FOR DISABILITY PARKING ONLY, PER STANDARD SU-36E

CITY OF TACOMA ANGLED DISABILITY PARKING STALL OR PASSENGER LOAD ZONE
STANDARD PLAN NO. SU-36D

REVIEWED BY
DCS
PUBLIC WORKS
N/A
TACOMA POWER

APPROVED FOR PUBLICATION
ENVIRONMENTAL SERVICES
N/A
TACOMA WATER

CITY ENGINEER
DATE
8/22/17
TOTAL MARKING AREA = 10 SQ. FT.
WHITE = 1 SQ. FT.
BLUE = 9 SQ. FT.

DISABILITY PARKING SPACE SYMBOL
WITH OPTIONAL BLUE BACKGROUND

PARALLEL PARKING/LOADING SPACE
ACCESS AISLE STRIPING

NO PARKING
PASSENGER LOADING ONLY
30 MIN LIMIT
8 AM - 6 PM

$450 FINE

(BEGIN/END TIMES MAY VARY
DEpending ON location)

PASSenger LOADING ZONE
SIGN
(RED ON WHITE)

DISABILITY PARKING STALL
SIGNS
(WHITE ON BLUE)

CITY OF TACOMA
DISABILITY PARKING &
PASSENGER LOAD ZONE
STRIPING & SIGNING DETAILS
STANDARD PLAN NO. SU-36E
NOTES:

Class 3000 cement concrete shall be placed, 1 3/8" min, below the finished pavement surface.

24-hours after placing the cement collar, HMA Class 3/4 PG 64-22 shall be placed in accordance with Standard Plan SU-15.

If the valve chamber being adjusted belongs to Tacoma Water, the Contractor shall contact Tacoma Water, Operations, at 253-502-8742 for final inspection.
**LEGEND**

1. 1/2" STAINLESS STEEL NUT WITH LOCK WASHERS (STAINLESS STEEL OR BRONZE).
2. 9" CABLE SADDLE (BRONZE), PAINTED GREEN, TO FIT 1/4" TO 1/2" SPAN WIRE.
3. SPAN WIRE.
4. 1/2" "J" CABLE CLAMPS (STAINLESS STEEL).
5. BRONZE BALANCE ADJUSTER DIRECTIONAL LOCK, PAINTED GREEN, WITH STAINLESS STEEL BOLTS AND WASHERS.
6. 5/8" PINS (STAINLESS STEEL) WITH BRASS OR STAINLESS STEEL COTTER PIN. INSTALL BRASS OR STAINLESS STEEL WASHERS ON EACH SIDE OF COTTER PIN.
7. BRONZE ENTRANCE FITTING, PAINTED GREEN.
8. 1-1/2" INSULATED CHASE NIPPLE.
9. 1-1/2" GALVANIZED DROP PIPE PAINTED SILVER. SEE NOTE BELOW. BOTTOM THREADS TO ACCOMMODATE FULL NUT AND LOCKING WIRE.
10. 1-1/2" MALLEABLE LOCK NUT—JAM TIGHT BEFORE INSTALLING HEAD.
11. (NON-CORROSIVE) SERRATED LOCKING WASHER.
13. SIGNAL HEAD WITH AUTOCAULKING IN LOCKING HOLES AT TOP OF THE VEHICLE HEAD.
14. 1-1/2" DIAMETER FLAT CORK GASKET. (NEOPRENE OK)
15. 1-1/2" NON-CORROSIVE SLIP RING.
16. 1-1/2" MALLEABLE NUT.
17. SAFETY LOCKING WIRE, #14TW OR EQUAL.
18. NUT (NO GASKET).
19. PINNACLE (NO WASHER) BOTTOM OF LOWEST SECTION.
20. 1-1/2" GALVANIZED 90° ELBOW, PAINTED GREEN.
21. STAINLESS STEEL SET SCREW WITH HEX HEAD.
22. 1-1/2" GALVANIZED NIPPLE, PAINTED GREEN.
23. TWO-WAY HOUSING WITH BOTTOM COVER, PAINTED GREEN.

**NOTE:**

ALL METAL THREADS AND BRACKETS SHALL BE PAINTED WITH A HIGH QUALITY RUST PREVENTATIVE PAINT. A COAT OF GALVANIZED BONDBINDING PRIMER SHALL BE APPLIED AND THOROUGHLY DRY BEFORE APPLYING FINISH COAT OF PAINT. ANY PAINTED HARDWARE DAMAGED DURING ASSEMBLY OR SHIPPING SHALL BE PAINTED AGAIN.

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**ASSEMBLED HEAD DETAIL**

NOTE: A FIVE POSITION TERMINAL BLOCK SHALL BE MOUNTED INSIDE AT THE BACK OF THE YELLOW SECTION HOUSING.

**MULTIPLE HEAD BRACKET DETAIL**

(SHALL INCLUDE LOWER TIE BRACE)

SEE ASSEMBLED HEAD DETAIL (ABOVE)

PLACE AUTOCAULKING DUCT SEAL BETWEEN ALL TOP EXTERIOR COMPRESSION JOINTS.

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**CITY OF TACOMA**
**DEPARTMENT OF PUBLIC WORKS**

**APPROVED FOR PUBLICATION**

**VEHICLE TRAFFIC SIGNAL**
**(SINGLE & MULTIPLE)**
**HANGER ASSEMBLY**

**STANDARD PLAN NO.** TS-01
(5) 1/2"-13x³" (A307) GALVANIZED HEX. HEAD BOLTS, EACH WITH HEX. NUT AND LOCK WASHER

5/16" HOT-DIPPED GALVANIZED STEEL (A36)

9/16" DIA. HOLE
2 HOLES IN LINE
4 REQUIRED

9/16" DIA. HOLE IN LUGS

1 1/4"
2 1/2"

3 1/4"

3/16" TYP

2"
1"

7/8"
1/4" GUSSET

3/8"
CONSTRUCTION NOTES

1. FD-1-50-A CAST ALUMINUM BOX
2. 5/16 INCH STAINLESS HEX BOLT WITH LOCK WASHER. DRILL & TAP POLE FOR 5/16 INCH STAINLESS STEEL BOLT.
3. H-TYPE EXTRUDED ALUMINUM OR FABRICATED APPROVED EQUAL
4. BUTTON, PLATE, STAINLESS STEEL FASTENERS & GASKET. PUSHBUTTON MECHANISM MUST HAVE MINIMUM OF 1/8 INCH OVER TRAVEL. REES #1371-412 OR APPROVED EQUAL.
5. SIGN TO BE SCREENED ON BOTH FACES OF EXTRUDED ALUMINUM OR ON SEPARATE PANELS.
6. 1/2 INCH CHASE NIPPLE W/NPT
7. 1/2 INCH ALUMINUM PLUG (DRILL 1/8 INCH DRAIN HOLE)

SIGN DETAILS

ONE EACH PER PUSHBUTTON ASSEMBLY R10-4B

TYPICAL INSTALLATION

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

H-TYPE PEDESTRIAN PUSHBUTTON ASSEMBLY

STANDARD PLAN NO. TS-03
THIMBLE EYE (2 PLACES)
RIGID SLEEVE AROUND BOLT
to protect thimble eye

USE TAIL OF ONE SPAN TO BOND TO ADJACENT SPAN.

MESSENGER CABLE SHALL BE BONDED TO STEEL STRAIN POLES BY MEANS OF A #10 MINIMUM GREEN BOND STRAP CONNECTED BETWEEN AN APPROVED CONNECTOR ON THE SPAN AND THE MANUFACTURERS SUPPLIED POLE BONDING LUG AT THE HAND HOLE.

SPAN WIRE BONDING GROUND Clamp (Galvanized to Galvanized).

5 STRAND GALVANIZED STEEL PREFE-TWISTED GUY STRAND DEAD END (2 PLACES)

5/16" 7 STRAND SPAN WIRE CLASS 'B' GALV.

GALVANIZED BOLT (3 PLACES)
NOTE:
CLEARANCE REQUIREMENTS BETWEEN THE TOP OF WEATHERHEAD, OR ANY PART OF THE COMMUNICATION RISER ASSEMBLY, SHALL BE AS FOLLOWS:
SECONDARY— MINIMUM 40 INCHES TO LOWEST PART OF SECONDARY OR NEUTRAL.
PRIMARY— MINIMUM OF 10 FEET 2 INCHES.
STREETLIGHT MAST ARM— MINIMUM OF 20 INCHES.
DRIP LOOP TO STREETLIGHT— MINIMUM OF 12 INCHES.
FACE OF FLANGE SHALL BE PARALLEL TO C & OF POLE

23/32" DIA.
(3) HOLES

ARM FLANGE

POLE FLANGE

5/8" NC THREAD
(3) HOLES

STREETLIGHT
MAST ARM MOUNTING
FLANGE DETAIL

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

CITY ENGINEER
DATE 2/4/03
STANDARD PLAN NO. TS-07
NOTES:

1. Junction boxes shall be concrete and in conformance with WSDOT's Type 1 and 2 Locking Lid Standard Duty Junction Box. Box and lid will be load rated for traffic and shall have a nonskid surface. The lid shall be marked "TS", "LT", or other designation as called for on the proposal.
2. All junction boxes containing interconnect cable will be Type 2 or larger.
3. Boxes shall be set on a base of 6 inch crushed surfacing top course for drainage.
4. Metal lids will be grounded. Ground conductor shall be a minimum 24 inches long.
5. Care shall be taken to place junction boxes outside of areas heavily used by pedestrians, especially near crosswalks and corners.
6. Junction boxes shall not be placed in curb ramps or areas subject to vehicular traffic.
7. Adjacent junction boxes will be separated by a minimum of 3 inches.
8. Install pulling bells or bushings on conduit ends.

CONCRETE BORDER APPLICATION AND DIMENSION:

1. For junction boxes bordered by less than 12 inches wide of concrete or asphalt section, a concrete border is required.
2. Junction boxes located in asphalt will be secured on all sides with a minimum 12 inch wide by 6 inch deep concrete section.
3. Junction boxes located in concrete will be secured on all sides with a minimum 12 inch wide concrete section. The depth of the concrete shall meet the depth of the adjacent concrete. The concrete will be finished in the same manner as the adjacent concrete, where applicable.
4. Junction boxes located in a planter strip, landscaped area, or other non-hardened surface will be secured on all sides with a minimum 6 inch wide by 12 inch deep concrete section flush with the top of the junction box.
CONDUIT SHALL BE CENTERED IN 8 INCH DIAMETER CIRCLE WITH SPACING FOR COUPLINGS. CONDUIT SHALL BE STRAIGHT AND VERTICAL IN POLE. THERE SHALL BE A MINIMUM OF 4 CONDUITS IN EACH FOUNDATION.

#6 STRANDED GROUND CABLE. BOND CAGE TO GROUND LUG.

LEVELING NUT AND WASHER TOP AND BOTTOM OF PLATE

GROUTING WITH WEEP HOLE

SCRIBE A CIRCLE WITH END OF CONDUIT ABOVE EACH CONDUIT ENTERING THE FOUNDATION

NOTE:

FOUNDATION

TOP ELEVATION SET BY ENGINEER. TOP 6 INCHES SHALL BE FORMED SQUARE.

ANCHOR BOLTS

SPACING AS PER TEMPLATE SUPPLIED BY POLE SUPPLIER. TOP OF BOLTS TO BE LEVEL. SEE SECTION 9-29.14 OF THE CITY AMENDMENTS. ANCHOR BOLTS SHALL EXTEND 6.0 TO 6.5 INCHES ABOVE THE FOUNDATION UNLESS OTHERWISE SPECIFIED.
NOTES:

1. CONDUIT SHALL HAVE MINIMUM 18" RADIUS BENDS.

2. CONDUITS SHALL EXTEND 1" ABOVE TOP OF BASE. INSTALL PULLING BELLS ON CONDUIT ENDS.

3. CONDUITS TO BE INSTALLED PER ENGINEER'S INSTRUCTIONS.

4. 15 FEET OF SLACK CABLE SHALL BE PROVIDED AT THE CONTROLLER END OF ALL CABLES TERMINATING IN THE CONTROLLER CABINET.

5. CABINET ANCHORS SHALL BE EXPANSION ANCHORS (5/8" x 4-1/2").

6. 4" THICK CONCRETE APRON SHALL EXTEND 12" AROUND REAR AND SIDES AND 36" IN FRONT. INSTALL EXPANSION JOINT BETWEEN FOUNDATION AND APRON.

PLAN VIEW

M - CABINET FOUNDATION
A = 32", B = 19"

P - CABINET FOUNDATION
A = 46", B = 28"

1/2" RADIUS TYP.

5/8" x 8' GROUND ROD

CABINET FOUNDATION

APRON AT SIDEWALK GRADE

EXPANSION JOINT TYP.

FRONT VIEW

SIDE VIEW

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

FOUNDATION & APRON FOR "M" AND "P" CONTROLLER CABINETS

STANDARD PLAN NO. TS-10
CONSTRUCTION NOTES:

1. CHANGE FROM 2 INCH CUT TO APPROXIMATELY A 4 INCH CUT AT ABOUT 12 INCHES FROM CURB.

2. LEAD-IN CUT SHALL BE THE SAME AS LOOP CUT EXCEPT AS INDICATED ON THE PLANS. IN THE LAST 12 TO 18 INCHES FROM THE GUTTER SECTION THE CUT SHALL GRADUALLY TRANSITION TO A FULL DEPTH CUT WHERE THE CONDUIT STUBS OUT UNDER THE CURB AND GUTTER. THIS WILL ALLOW THE LEAD-IN WIRE TO EXIT THE CONDUIT AND ENTER THE SAW CUT WITH NO SHARP EDGES.

3. METHOD SAME FOR CONCRETE OR ASPHALT PAVEMENTS.

4. INSTALL 5 CONDUCTOR CABLE SHEATHING OVER INDIVIDUAL PAIRS. EXTEND 6 INCHES INTO SAWCUTS AND 6 INCHES INTO CONDUIT. LEAVE SLACK AS DIRECTED BY ENGINEER.

5. ALL SAWCUTS SHALL BE CLEANED WITH A HIGH PRESSURE WASHER AND DRIED WITH 100 PSI MINIMUM AIR PRESSURE. ALL WASH WATER AND SLURRY SHALL BE VACUUMED UP AND PROHIBITED FROM LEAVING THE IMMEDIATE CUT AREA.

6. ONLY THOSE LOOPS THAT CAN BE COMPLETELY FINISHED, HAVING LOOP WIRE, ROPE AND SEALANT INSTALLED, IN ONE WORKING DAY, SHALL BE SAW-CUT IN THAT WORKING DAY. NO CONTINUOUS TRAFFIC SHALL BE ALLOWED TO TRAVEL OVER OPEN SAW-CUTS BEFORE LOOP WIRE, ROPE AND SEALANT HAVE BEEN INSTALLED. ALL ROADWAY SURFACES SHALL BE THOROUGHLY CLEANED UPON COMPLETION OF ANY LOOP WORK.

7. LOOP SPlicing PROCEDURE SHALL BE TO TWIST THE WIRE, SOLDER IT, WRAP WITH ELECTRICIAN’S TAPE TO 4 INCHES PAST THE SPICE EACH WAY, AND COAT WITH MOISTURE-RESISTANT VARNISH. LOOP SPlicing SHALL BE PERFORMED BY CITY OF TACOMA CREWS.

8. ALL LOOPS SHALL BE COMPLETELY INSTALLED BY THE CONTRACTOR INCLUDING SAW-CUTTING, LAYING WIRE, TESTING AND SEALANT.

9. A MINIMUM OF THREE (3) FEET OF SLACK LOOP WIRE OR LEAD-IN WIRE SHALL BE LEFT AT JUNCTION BOX.
POLE HALF  SIGNAL HALF

MATERIAL: CAST ALUMINUM ALLOY

STANDARD PAINT FINISHES: DARK OLIVE GREEN

DIMENSIONS: 11–1/4” H MAXIMUM x5–1/2” W MAXIMUM x2–3/4” D MAXIMUM

WEIGHT: TOTAL WEIGHT SHALL NOT EXCEED 7–1/2 LBS.

CONSTRUCTION: THE CLAMSHHELL CONSISTS OF A TWO PART MOUNTING ASSEMBLY. THE HINGE PINS ON THE POLE MOUNTED HALF SHALL BE STAINLESS STEEL AND FIT INTO THE EARS ON THE SIGNAL MOUNTED HALF.

MOUNTING: THE POLE HALF OF THE ASSEMBLY SHALL BE DESIGNED TO FIT THE CURVATURE OF POLES 4” IN DIAMETER AND LARGER.

THE CLAMSHHELL SHALL BE MECHANICALLY DESIGNED TO ALLOW FOR VARIOUS TYPES OF MOUNTING SUCH AS BANDING, THRU–BOLT OR LAG SCREW MOUNTING. THE BOLT HOLES SHALL BE ELONGATED HORIZONTALLY TO ALLOW FOR ROTATION ON THE POLE.

THE SIGNAL HALF OF THE ASSEMBLY SHALL BE SECURED TO THE POLE HALF THROUGH USE OF A FLATHEAD SOCKET BOLT AND TIGHTENED USING A 3/16” ALLEN WRENCH.

THE POLE HALF SHALL BE MOUNTED TO THE STRAIN POLE USING BOLTS EXCEPT AS DIRECTED BY THE ENGINEER.

THE BOTTOM OF THE PEDESTRIAN SIGNAL HEAD SHALL BE 8’ ABOVE THE FINISHED SIDEWALK GRADE.

WIRING: THE FIELD WIRING SHALL BE TERMINATED ON A HORIZONTALLY MOUNTED 3 POSITION TERMINAL BLOCK LOCATED IN THE UPPER HALF OF THE SIGNAL HALF.

A NEOPRENE GASKET WILL PROVIDE A RAIN–TIGHT SEAL

MISCELLANEOUS: DRILL AND TAP HOLE IN STEEL POLE FOR 3/4” INSULATED CHASE NIPPLE FOR WIRING.
NOTES:

1. ALL METAL THREADS SHALL BE PAINTED WITH A HIGH QUALITY RUST PREVENTATIVE PAINT AND DRIED BEFORE ASSEMBLY. AFTER ASSEMBLY, A COAT OF GALVANIZED BONDING PRIMER PAINT SHALL BE APPLIED (AND THOROUGHLY DRY BEFORE PAINTING). COMPLETE BRACKET ASSEMBLY SHALL HAVE A FINISH COAT OF EXTERIOR QUALITY GREEN PAINT. ANY PAINTED HARDWARE DAMAGED DURING ASSEMBLY OR SHIPPING SHALL BE PAINTED AGAIN.

2. ALL TEES AND ELBOWS SHALL BE MADE FLAT AND LEVEL AT CONTACT POINTS, FOR WATERTIGHT SEAL.

3. THE BOTTOM BRACKET FLANGE ON A STEEL POLE SHALL HAVE A 5/16" X 3/4" FLATHEAD BRASS OR BRONZE SCREW LOCATED IN THE TOP OF THE FLANGE. THE SCREW SHALL BE TAPPED INTO THE CENTERLINE OF THE POLE BEFORE BANDING.

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LEGEND:

1. 1-1/2" GALVANIZED NIPPLE TO PROVIDE FULL NUT, (REAMED AND PRIMED) WITH 1" LONG PIECE OF PVC CONDUIT USED AS SPACER.
2. 1-1/2" DIAMETER NON-CORROSIVE SLIP RING.
3. 1-1/2" MALLEABLE NUT, NON-CORROSIVE.
4. 1-1/2" DIAMETER FLAT CORK GASKET, (NEOPRENE OK)
5. 1-1/2" GALVANIZED TEE.
6. 1-1/2" GALVANIZED ELBOW.
7. GALVANIZED PIPE PLUG.
8. FOR STEEL OR WOOD POLES 1-1/2" GALVANIZED NIPPLE 12" LONG.
9. FOR CONCRETE POLES, SEE CONCRETE POLE MOUNTING DETAIL.
10. DRILL AND TAP HOLE IN STEEL POLE FOR 3/4" INSULATED CHASE NIPPLE FOR WIRING.
11. ALUMINUM POLE FLANGE, SEE NOTE #3.
12. 1-1/2" GALVANIZED NIPPLE TO PROVIDE FULL NUT, (REAMED AND PRIMED) WITH 3" LONG PIECE OF PVC CONDUIT USED AS SPACER.
NOTE:

THIS STANDARD DEPICTS A VEHICLE HEAD PLACEMENT AS IT RELATES TO THE LANE LINES ON THE APPROACH TO THE GIVEN HEADS.

SIGNAL HEADS MUST BE LEVELED TO SPEC FROM A POINT 80 FEET FROM THE STOP BAR.

OVERHEAD SIGNS SHALL BE PLACED 2 FEET FROM VEHICLE HEAD.
PEDESTRIAN SIGNAL WIRING
RED     N/S - DW
GREEN   N/S - WK
ORANGE  E/W - DW
BLACK   E/W - WK
WHITE   NEUTRAL

PEDESTRIAN PUSH BUTTON WIRING
RED     N/S
GREEN   SPARE
ORANGE  SPARE
*BLACK  E/W
WHITE   COMM BETWEEN PUSH BUTTONS

*BLACK USED WHEN ONLY ONE PUSH BUTTON
IS USED FOR CROSSING EITHER STREET.
NOTES:
1. (DISTANCE TO CENTER OF ROUND LOOP)
2. ALL DISTANCES MEASURED FROM FRONT EDGE OF STOP BAR.
3. VEHICLE LOOPS ARE 6' X 6' SQUARE OR 6' DIAMETER ROUND.
FOUNDATION DETAILS

ANCHOR BOLT, NUT, & WASHER SIZES

<table>
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<th>MARK</th>
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<tr>
<td>S</td>
<td>TYPE PPB</td>
<td>4 - 1/2&quot; DIA x 12&quot; x 2&quot;</td>
</tr>
<tr>
<td>S</td>
<td>TYPE PS &amp; I</td>
<td>4 - 3/4&quot; DIA x 30&quot; x 4&quot;</td>
</tr>
<tr>
<td>S</td>
<td>TYPE FB &amp; RM</td>
<td>3 - 3/4&quot; DIA x 30&quot; x 4&quot;</td>
</tr>
</tbody>
</table>

SIGNAL STANDARD TYPE DESIGNATIONS AND TYPE PPB, PS, I, RM, & FB DETAILS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>TYPE PPB</th>
<th>TYPE PS</th>
<th>TYPE I</th>
<th>TYPE RM</th>
<th>TYPE FB</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEIGHT</td>
<td>4&quot; - 6&quot;</td>
<td>8&quot; - 0&quot;</td>
<td>10&quot; - 0&quot;</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>POLE BASE DIA</td>
<td>2 1/2&quot;</td>
<td>*</td>
<td>*</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>PLATE THICKNESS</td>
<td>1/2&quot;</td>
<td>1/2&quot;</td>
<td>1/2&quot;</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>PLATE WIDTH</td>
<td>5&quot;</td>
<td>9&quot;</td>
<td>9&quot;</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>HOLE DIA</td>
<td>5/8&quot;</td>
<td>1&quot;</td>
<td>1&quot;</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>BOLT CIRCLE</td>
<td>4 1/2&quot;</td>
<td>8 1/2&quot;</td>
<td>8 1/2&quot;</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>FOUNDATION DEPTH</td>
<td>1&quot; - 6&quot;</td>
<td>3&quot; - 0&quot;</td>
<td>3&quot; - 0&quot;</td>
<td>3&quot; - 0&quot;</td>
<td>3&quot; - 0&quot;</td>
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<tr>
<td>FOUNDATION WIDTH</td>
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<td>2&quot; - 0&quot;</td>
<td>2&quot; - 0&quot;</td>
<td>2&quot; - 0&quot;</td>
<td>2&quot; - 0&quot;</td>
</tr>
<tr>
<td>NUT &amp; WASHER</td>
<td>FOUR 1/2&quot; x 3/4&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>GROUT PAD THICKNESS</td>
<td>NONE</td>
<td>**</td>
<td>**</td>
<td>SHEET 2</td>
<td>SHEET 2</td>
</tr>
<tr>
<td>PLASTIC DRAIN TUBE DIA</td>
<td>NONE</td>
<td>3/8&quot;</td>
<td>3/8&quot;</td>
<td>3/8&quot;</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>VERTICAL RE-BAR</td>
<td>NONE</td>
<td>EIGHT #4</td>
<td>EIGHT #4</td>
<td>EIGHT #4</td>
<td>EIGHT #4</td>
</tr>
<tr>
<td>HORIZ. RE-BAR HOOP</td>
<td>NONE</td>
<td>SIX #4</td>
<td>SIX #4</td>
<td>SIX #4</td>
<td>SIX #4</td>
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<tr>
<td>HAND-HOLE SIZE</td>
<td>NONE</td>
<td>3-1/2&quot; x 4&quot;</td>
<td>3-1/2&quot; x 4&quot;</td>
<td>3-1/2&quot; x 4&quot;</td>
<td>3-1/2&quot; x 4&quot;</td>
</tr>
<tr>
<td>SLIPFITTER DIA (I.D.)</td>
<td>NONE</td>
<td>4&quot;</td>
<td>4&quot;</td>
<td>4&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td>CAP DIA</td>
<td>2 1/2&quot;</td>
<td>NONE</td>
<td>NONE</td>
<td>NONE</td>
<td>NONE</td>
</tr>
</tbody>
</table>

* TAPERED ROUND OR OCTAGONAL SHAFT, 11 GAGE, 4" OD AT SLIPFITTER WELD.
** LEVELING NUT HEIGHT 1" MAXIMUM.
LEVELING NUTS NOT REQUIRED FOR TYPE PPB STANDARD

APPROVED FOR PUBLICATION
CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

SIGNAL STANDARD TYPE

CITY ENGINEER
DATE 2/4/03
STANDARD PLAN NO. TS-17
ISOLATION JOINTS

PCC PAVEMENT

STANDARD PLAN A-40.15-00

CONDITION A

CONDITION B

CONDITION C

CONDITION D

CONDITION E

CONDITION F

CONDITION G

CONDITION H

CONDITION I

CONDITION J

NOTE

ALL CONDITIONS ARE SHOWN IN PLAN VIEW
**TYPICAL ISOLATION JOINT GUIDELINES**

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>FEATURE</th>
<th>EDGES, FLANGES OR LIPS IN THE PAVEMENT SECTION</th>
<th>CONTINUOUS VERTICAL FACE THROUGH THE PAVEMENT SECTION</th>
<th>DISTANCE FROM NEAREST TRANSVERSE JOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CATCH BASIN OR COMBINATION GRATE</td>
<td>USE</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>B</td>
<td>CATCH BASIN OR COMBINATION GRATE</td>
<td>USE</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>C</td>
<td>CATCH BASIN OR COMBINATION GRATE</td>
<td>USE</td>
<td>---</td>
<td>&gt; 4 FT FROM JOINT</td>
</tr>
<tr>
<td>D</td>
<td>GRATE INLET, CATCH BASIN OR CONCRETE INLET</td>
<td>---</td>
<td>USE</td>
<td>&lt; 4 FT FROM JOINT</td>
</tr>
<tr>
<td>E</td>
<td>GRATE INLET, CATCH BASIN OR CONCRETE INLET</td>
<td>---</td>
<td>USE</td>
<td>&lt; 4 FT FROM JOINT</td>
</tr>
<tr>
<td>F</td>
<td>GRATE INLET, CATCH BASIN OR CONCRETE INLET</td>
<td>---</td>
<td>USE</td>
<td>&gt; 4 FT FROM JOINT</td>
</tr>
<tr>
<td>G</td>
<td>MANHOLE OR CATCH BASIN TYPE 2</td>
<td>USE</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>H</td>
<td>MANHOLE OR CATCH BASIN TYPE 2</td>
<td>USE</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I</td>
<td>MANHOLE OR CATCH BASIN TYPE 2</td>
<td>USE</td>
<td>---</td>
<td>&lt; 4 FT FROM JOINT</td>
</tr>
<tr>
<td>J</td>
<td>MANHOLE OR CATCH BASIN TYPE 2</td>
<td>USE</td>
<td>---</td>
<td>&gt; 4 FT FROM JOINT</td>
</tr>
</tbody>
</table>

* WITH RECTANGULAR GRATE CAST INTO ADJUSTMENT SECTION.
**NOTES**

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot, shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.

2. The knockout shall not be greater than 26” (in), in any direction. Knockouts shall have a wall thickness of 2” (in) minimum to 2.5” (in) maximum. Provide a 1.5” (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification Section 9-04.3.

3. The maximum depth from the finished grade to the lowest pipe invert shall be 5’ (ft).

4. The frame and grate may be installed with the flange down or integrally cast into the adjustment section with flange up.

5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.

6. The opening shall be measured at the top of the Precast Base Section.

7. All pickup holes shall be grouted full after the basin has been placed.

---

**PIPE ALLOWANCES**

<table>
<thead>
<tr>
<th>PIPE MATERIAL</th>
<th>MAXIMUM INSIDE DIAMETER (INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REINFORCED OR PLAIN CONCRETE</td>
<td>1/8”</td>
</tr>
<tr>
<td>ALL METAL PIPE</td>
<td>2 1/4”</td>
</tr>
<tr>
<td>CRISP STAR (STD. SPEC. SECT. 9-06.20)</td>
<td>1 1/8”</td>
</tr>
<tr>
<td>SOLID WALL PVC (STD. SPEC. SECT. 9-04.12(1))</td>
<td>2 1/4”</td>
</tr>
<tr>
<td>PROFILE WALL PVC (STD. SPEC. SECT. 9-04.12(2))</td>
<td>2 1/4”</td>
</tr>
</tbody>
</table>

* CORRUGATED POLYETHYLENE STORM SEWER pipe

---

**CATCH BASIN TYPE 1L**

**STANDARD PLAN B-5.40-02**
NOTES

1. This inlet requires the precast catch basin unit to be rotated 90 degrees so that the narrow side is parallel to the curb line. When calculating offsets from curb to centerline (CL) of the precast catch basin, please note that the CL of the grate is not the CL of the precast catch basin. See Section A.

2. The dimensions of the frame and hood may vary slightly among different manufacturers. The frame may have cast features intended to support a debris guard. Hood units may be mounted inside or outside of the frame. The methods for fastening the safety bar / debris guard rod to the hood may vary. The hood may include casting lugs. The top of the hood may be cast with a pattern.

3. Attach the hood to the frame with two 3/4" (in) × 2" (in) hex head bolts, nuts, and oversize washers. The washers shall have diameters adequate to ensure full bearing across the slots.

4. Bolt-down capability is required on all frames, grates and covers, unless specified otherwise in the Contract. Provide two holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer. See BOLT-DOWN DETAIL, Standard Plan B-30.10.

5. Only ductile iron Vaned Grates shall be used. See Standard Plans B-30.30 and B-30.40 for grate details. Refer to Standard Specification Section 9-05.15(2) for additional requirements.

6. This plan is intended to show the installation details of a manufactured product. This plan is not intended to show the specific details necessary to fabricate the castings depicted in this drawing.
NOTES

1. This frame is designed to accommodate 20" (in) x 24" (in) grates or covers as shown on Standard Plans B-30.20, B-30.30, B-30.40, and B-30.50.

2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

3. Refer to Standard Specification Section 9-06.15 and 9-06.15(2) for additional requirements.
NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) Allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.

2. Refer to Standard Specification Section 9-05.15 and 9-05.15(2) for additional requirements.

3. For frame details, see Standard Plan B-30.10.
APPENDIX B

NPDES CONSTRUCTION STORMWATER

GENERAL PERMIT
July 6, 2021

Amy Anderson  
City of Tacoma  
326 E D St  
Tacoma, WA 98421

RE: Coverage under the Construction Stormwater General Permit

Permit number: WAR310287  
Site Name: Madison District Green Infrastructure District  
Location: Encompasses 16 blocks directly west of the Tacoma Mall  
Tacoma, WA  
County: Pierce  
Disturbed Acres: 5.2

Dear Amy Anderson:

The Washington State Department of Ecology (Ecology) received your Notice of Intent for coverage under Ecology’s Construction Stormwater General Permit (CSWGP). This is your permit coverage letter. Your permit coverage is effective July 6, 2021.

Retain this letter as an official record of permit coverage for your site. You may keep your records in electronic format if you can easily access them from your construction site. You can get the CSWGP, permit forms, and other information at www.ecology.wa.gov/eCoverage-packet. Contact your Permit Administrator, listed below, if you want a copy of the CSWGP mailed to you. Please read the permit and contact Ecology if you have any questions.

Electronic Discharge Monitoring Reports (WQWebDMR)  
This permit requires you to submit monthly discharge monitoring reports (DMRs) for the full duration of permit coverage (from the first full month of coverage to termination). DMRs must be submitted electronically using Ecology’s secure online system, WQWebDMR. To sign up for WQWebDMR go to www.ecology.wa.gov/programs/wq/permits/paris/webdmr.html. If you have questions, contact the portal staff at (360) 407-7097 (Olympia area), or (800) 633-6193/option 3, or email WQWebPortal@ecy.wa.gov.
Appeal Process
You have a right to appeal coverage under the general permit to the Pollution Control Hearing Board (PCHB). Appeals must be filed within 30 days of the date of receipt of this letter. Any appeal is limited to the general permit’s applicability or non-applicability to a specific discharger. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. “Date of receipt” is defined in RCW 43.21B.001(2). For more information regarding your right to appeal, go to https://apps.ecology.wa.gov/publications/summarypages/1710007.html to view Ecology’s Focus Sheet: Appeal of General Permit Coverage.

Annual Permit Fees
RCW 90.48.465 requires Ecology to recover the costs of managing the permit program. Permit fees are invoiced annually until the permit is terminated. Termination conditions are described in the permit. For permit fee related questions, please contact the Water Quality Fee Unit at wqfee_unit@ecy.wa.gov or (800) 633-6193, Option 2.

Ecology Field Inspector Assistance
If you have questions regarding stormwater management at your construction site, please contact your Regional Inspector, Jess Eakens of Ecology’s Southwest Regional Office in Lacey at jess.eakens@ecy.wa.gov, or (360) 407-0246.

Questions or Additional Information
Ecology is here to help. Please review our web page at www.ecology.wa.gov/constructionstormwaterpermit. If you have questions about the Construction Stormwater General Permit, please contact your Permit Administrator, Melinda Wilson at melinda.wilson@ecy.wa.gov, or (360) 407-7229.

Sincerely,

Jeff Killelea, Manager
Program Development Services Section
Water Quality Program
APPENDIX C

CONSTRUCTION QUALITY ASSURANCE PLAN
1. Qualifications.

The following individuals will be providing quality control and quality assurance inspection and testing for the entire project. \[This shall include all relevant contractors, subcontractors, city personnel and consultants\]

<table>
<thead>
<tr>
<th>Organization</th>
<th>Role</th>
<th>Responsible Party</th>
<th>Certifications</th>
<th>College Degree</th>
<th>Years of Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

2. Authority.

\[Insert Name Here\] is the Construction Superintendent for this project. The Construction Superintendent will be coordinating all activities with the onsite foreman and various subcontractors. He has the authority to stop all work (including that of subcontractors and suppliers).

All testing is completed by the City of Tacoma through the Construction Inspector. Issues that arise are forwarded to the City’s Associate Project manager. Both the Construction Inspector and Associate Project Manager have the authority to stop work.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Role</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tacoma</td>
<td>Associate Project Manger</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing</td>
<td></td>
</tr>
</tbody>
</table>

3. Chart of Inspections

Appendix A contains a chart of inspections (both Quality Control and Quality Assurance) that details the definable features of work, the responsible inspector and the frequency and method of inspections. It also includes the testing method (if applicable) and corrective procedures if the test fails.

4. Quality Assurance

4-1. The first part of the Quality Assurance Plan is to develop a list of definable features of work for this project. The list of definable features for this project follows: \[This list of features should match the features in Appendix A of this Quality Control Plan. The following items are included as an example. Features should be added/removed for the specifics of this project\]

<table>
<thead>
<tr>
<th>Submittals</th>
<th>Electrical</th>
<th>Seeding/Mulching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>Embankment</td>
<td>Base Rock</td>
</tr>
<tr>
<td>Clearing and Grubbing</td>
<td>Wall Installation</td>
<td>Paving Porous &amp; Standard HMA</td>
</tr>
<tr>
<td>Erosion Control Devices</td>
<td>Fencing</td>
<td>Traffic Control</td>
</tr>
<tr>
<td>Excavation</td>
<td>Finishing Subgrade</td>
<td>Pavement Markings &amp; Permanent Signs</td>
</tr>
<tr>
<td>Utility Installation</td>
<td>Landscape Planting</td>
<td>Redline Drawings</td>
</tr>
</tbody>
</table>
4-2. The second part of the Quality Assurance Plan is to hold “progress” meetings. On the project as work progresses, prior to the start of each definable feature of work, a “progress” meeting will be held with the foreman and crew.

- The Owner will be invited to the meetings.
- Each meeting will cover the applicable specifications of the contract and the expectations from the crew for the work.
- Any work requiring specialized training will be reviewed prior to start up to assure the work crew is qualified and prepared to complete the work in compliance with the contract.

These “progress” meetings may occur prior to starting work for the day, during a lunch break or at the end of the day as needed.

5. Record Management.
The Construction Superintendent will have overall responsibility for managing all paperwork associated with the quality system. A chart of the paperwork to be maintained along with person responsible for completion, timeframe for completion and submission and location of the contractor copy of the paperwork is found below.

Unless otherwise indicated, originals will be provided to the Owner upon completion. All reports will be used per contract specifications. [The following items are provided as examples. The contractor should update per project specifications]

<table>
<thead>
<tr>
<th>Paperwork</th>
<th>Person Responsible for Collection</th>
<th>Timeframe for Completion and Submission</th>
<th>Location of Contractor Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Reports</td>
<td>City Construction Inspector</td>
<td>48 hrs</td>
<td>Contractor Main Office</td>
</tr>
<tr>
<td>Submittals &amp; Certification</td>
<td>City Construction Associate Project Manager</td>
<td>10 days maximum</td>
<td>Contractor Main Office</td>
</tr>
<tr>
<td>Tracking Report</td>
<td>Construction Superintendent</td>
<td>During Construction</td>
<td>Contractor Main Office</td>
</tr>
<tr>
<td>Final Inspection</td>
<td>City Construction Inspector</td>
<td>At project completion</td>
<td>Contractor Main Office</td>
</tr>
</tbody>
</table>

6. Modifications to the Quality Control and Assurance Plan.
The Associate Project Manager, City Construction Inspector and Construction Superintendent will have responsibility for modifying the Quality Control and Assurance Plan as needed during construction. Modifications will be made if definable features are added, removed for substantially modified during construction. Furthermore, modifications to testing procedures and/or corrective action can be made at any time at the discretion of the Associate Project Manager, City Construction Inspector or Construction Tester.
<table>
<thead>
<tr>
<th>Definable Features</th>
<th>Inspection Responsibilities</th>
<th>Process and Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quality Control</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td></td>
<td>City Chief Surveyor</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Clearing &amp; Grubbing</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Erosion Control Devices</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Excavation</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Utility Installation</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Electrical</td>
<td>Tacoma Public Utility Inspector</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Embankment</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Wall Installation</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Fencing</td>
<td>City Construction Inspector</td>
<td></td>
</tr>
<tr>
<td>Landscape Planting</td>
<td>City Construction Inspector</td>
<td></td>
</tr>
<tr>
<td>Seeding/ Mulching</td>
<td>City Construction Inspector</td>
<td></td>
</tr>
<tr>
<td>Definable Features</td>
<td>Inspection Responsibilities</td>
<td>Process and Frequency</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>----------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Quality Control</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>Base Rock</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Paving Porous &amp; Standard HMA</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Traffic Control</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
<tr>
<td>Pavement Markings &amp; Permanent Signs</td>
<td>Construction Superintendent</td>
<td>City Construction Inspector</td>
</tr>
</tbody>
</table>
APPENDIX D

PLAN AND PROCEDURES FOR THE UNANTICIPATED DISCOVERY OF

CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS
INADVERTENT DISCOVERY PLAN
PLAN AND PROCEDURES FOR THE DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

To request ADA accommodation, including materials in a format for the visually impaired, call Ecology at 360-407-6000 or visit https://ecology.wa.gov/accessibility. People with impaired hearing may call Washington Relay Service at 711. People with a speech disability may call TTY at 877-833-6341.

Site Name(s): Location:

Project Lead/Organization: County:

If this Inadvertent Discovery Plan (IDP) is for multiple (batched) projects, ensure the location information covers all project areas.

1. INTRODUCTION

The IDP outlines procedures to perform in the event of a discovery of archaeological materials or human remains, in accordance with applicable state and federal laws. An IDP is required, as part of Agency Terms and Conditions for all grants and loans, for any project that creates disturbance above or below the ground. An IDP is not a substitute for a formal cultural resource review (Executive 21-02 or Section 106).

Once completed, the IDP should always be kept at the project site during all project activities. All staff, contractors, and volunteers should be familiar with its contents and know where to find it.

2. CULTURAL RESOURCE DISCOVERIES

A cultural resource discovery could be prehistoric or historic. Examples include (see images for further examples):

- An accumulation of shell, burned rocks, or other food related materials.
- Bones, intact or in small pieces.
- An area of charcoal or very dark stained soil with artifacts.
- Stone tools or waste flakes (for example, an arrowhead or stone chips).
- Modified or stripped trees, often cedar or aspen, or other modified natural features, such as rock drawings.
- Agricultural or logging materials that appear older than 50 years. These could include equipment, fencing, canals, spillways, chutes, derelict sawmills, tools, and many other items.
- Clusters of tin cans or bottles, or other debris that appear older than 50 years.
- Old munitions casings. Always assume these are live and never touch or move.
- Buried railroad tracks, decking, foundations, or other industrial materials.
- Remnants of homesteading. These could include bricks, nails, household items, toys, food containers, and other items associated with homes or farming sites.
The above list does not cover every possible cultural resource. When in doubt, assume the material is a cultural resource.

3. ON-SITE RESPONSIBILITIES

If any employee, contractor, or subcontractor believes that they have uncovered cultural resources or human remains at any point in the project, take the following steps to Stop-Protect-Notify. If you suspect that the discovery includes human remains, also follow Sections 5 and 6.

STEP A: Stop Work.
All work must stop immediately in the vicinity of the discovery.

STEP B: Protect the Discovery.
Leave the discovery and the surrounding area untouched and create a clear, identifiable, and wide boundary (30 feet or larger) with temporary fencing, flagging, stakes, or other clear markings. Provide protection and ensure integrity of the discovery until cleared by the Department of Archaeological and Historical Preservation (DAHP) or a licensed, professional archaeologist.

Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site. Do not allow work to resume within the boundary until the requirements of this IDP are met.

STEP C: Notify Project Archaeologist (if applicable).
If the project has an archaeologist, notify that person. If there is a monitoring plan in place, the archaeologist will follow the outlined procedure.

STEP D: Notify Project and Washington Department of Ecology (Ecology) contacts.

Project Lead Contacts

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<tr>
<th>Primary Contact</th>
<th>Alternate Contact</th>
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Ecology Contacts (completed by Ecology Project Manager)

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<tr>
<th>Ecology Project Manager</th>
<th>Alternate or Cultural Resource Contact</th>
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STEP E: Ecology will notify DAHP.

Once notified, the Ecology Cultural Resource Contact or the Ecology Project Manager will contact DAHP to report and confirm the discovery. To avoid delay, the Project Lead/Organization will contact DAHP if they are not able to reach Ecology. DAHP will provide the steps to assist with identification. DAHP, Ecology, and Tribal representatives may coordinate a site visit following any necessary safety protocols. DAHP may also inform the Project Lead/Organization and Ecology of additional steps to further protect the site.

Do not continue work until DAHP has issued an approval for work to proceed in the area of, or near, the discovery.

DAHP Contacts:

Name: Rob Whitlam, PhD  
Title: State Archaeologist  
Cell: 360-890-2615  
Email: Rob.Whitlam@dahp.wa.gov  
Main Office: 360-586-3065

Human Remains/Bones:

Name: Guy Tasa, PhD  
Title: State Anthropologist  
Cell: 360-790-1633 (24/7)  
Email: Guy.Tasa@dahp.wa.gov

4. TRIBAL CONTACTS

In the event cultural resources are discovered, the following tribes will be contacted. See Section 10 for Additional Resources.

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Please provide contact information for additional tribes within your project area, if needed, in Section 11.

5. FURTHER CONTACTS (if applicable)

If the discovery is confirmed by DAHP as a cultural or archaeological resource, or as human remains, and there is a partnering federal or state agency, Ecology or the Project Lead/Organization will ensure the partnering agency is immediately notified.
6. SPECIAL PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL MATERIAL

Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect. Follow the steps under **Stop-Protect-Notify**. For specific instructions on how to handle a human remains discovery, see: RCW 68.50.645: Skeletal human remains—Duty to notify—Ground disturbing activities—Coroner determination—Definitions.

**Suggestion:** If you are unsure whether the discovery is human bone or not, contact Guy Tasa with DAHP, for identification and next steps. Do not pick up the discovery.

Guy Tasa, PhD State Physical Anthropologist
Guy.Tasa@dahp.wa.gov
(360) 790-1633 (Cell/Office)

For discoveries that are confirmed or suspected human remains, follow these steps:

1. Notify law enforcement and the Medical Examiner/Coroner using the contacts below. **Do not call 911** unless it is the only number available to you.

Enter contact information below (required):
   - Local Medical Examiner or Coroner name and phone:

   - Local Law Enforcement main name and phone:

   - Local Non-Emergency phone number (911 if without a non-emergency number):

2. The Medical Examiner/Coroner (with assistance of law enforcement personnel) will determine if the remains are human or if the discovery site constitutes a crime scene and will notify DAHP.

3. **DO NOT** speak with the media, allow photography or disturbance of the remains, or release any information about the discovery on social media.

4. If the remains are determined to be non-forensic, Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection and to shield them from being photographed by others or disturbed.
Further activities:

- Per RCW 27.44.055, RCW 68.50, and RCW 68.60, DAHP will have jurisdiction over non-forensic human remains. Ecology staff will participate in consultation. Organizations may also participate in consultation.
- Documentation of human skeletal remains and funerary objects will be agreed upon through the consultation process described in RCW 27.44.055, RCW 68.50, and RCW 68.60.
- When consultation and documentation activities are complete, work in the discovery area may resume as described in Section 8.

If the project occurs on federal lands (such as a national forest or park or a military reservation) the provisions of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) apply and the responsible federal agency will follow its provisions. Note that state highways that cross federal lands are on an easement and are not owned by the state.

If the project occurs on non-federal lands, the Project Lead/Organization will comply with applicable state and federal laws, and the above protocol.

7. DOCUMENTATION OF ARCHAEOLOGICAL MATERIALS

Archaeological resources discovered during construction are protected by state law RCW 27.53 and assumed eligible for inclusion in the National Register of Historic Places under Criterion D until a formal Determination of Eligibility is made.

The Project Lead/Organization must ensure that proper documentation and field assessment are made of all discovered cultural resources in cooperation with all parties: the federal agencies (if any), DAHP, Ecology, affected tribes, and the archaeologist.

The archaeologist will record all prehistoric and historic cultural material discovered during project construction on a standard DAHP archaeological site or isolate inventory form. They will photograph site overviews, features, and artifacts and prepare stratigraphic profiles and soil/sediment descriptions for minimal subsurface exposures. They will document discovery locations on scaled site plans and site location maps.

Cultural features, horizons, and artifacts detected in buried sediments may require the archaeologist to conduct further evaluation using hand-dug test units. They will excavate units in a controlled fashion to expose features, collect samples from undisturbed contexts, or to interpret complex stratigraphy. They may also use a test unit or trench excavation to determine if an intact occupation surface is present. They will only use test units when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site’s significance. They will conduct excavations using standard archaeological techniques to precisely document the location of cultural deposits, artifacts, and features.

The archaeologist will record spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material, and depth to sterile soil, regolith, or bedrock for each unit on a standard form. They will complete test excavation unit level forms, which will include plan maps for each excavation level and artifact counts and material types, number, and vertical provenience (depth below
surface and stratum association where applicable) for all recovered artifacts. They will draw a stratigraphic profile for at least one wall of each test excavation unit.

The archaeologist will screen sediments excavated for purposes of cultural resources investigation through 1/8-inch mesh, unless soil conditions warrant 1/4-inch mesh.

The archaeologist will analyze, catalogue, and temporarily curate all prehistoric and historic artifacts collected from the surface and from probes and excavation units. The ultimate disposition of cultural materials will be determined in consultation with the federal agencies (if any), DAHP, Ecology, and the affected tribe(s).

Within 90 days of concluding fieldwork, the archaeologist will provide a technical report describing any and all monitoring and resultant archaeological excavations to the Project Lead/Organization, who will forward the report to Ecology, the federal agencies (if any), DAHP, and the affected tribe(s) for review and comment.

If assessment activities expose human remains (burials, isolated teeth, or bones), the archaeologist and Project Lead/Organization will follow the process described in Section 6.

8. PROCEEDING WITH WORK
The Project Lead/Organization shall work with the archaeologist, DAHP, and affected tribe(s) to determine the appropriate discovery boundary and where work can continue.

Work may continue at the discovery location only after the process outlined in this plan is followed and the Project Lead/Organization, DAHP, any affected tribe(s), Ecology, and the federal agencies (if any) determine that compliance with state and federal laws is complete.

9. ORGANIZATION RESPONSIBILITY
The Project Lead/Organization is responsible for ensuring:

- This IDP has complete and accurate information.
- This IDP is immediately available to all field staff at the sites and available by request to any party.
- This IDP is implemented to address any discovery at the site.
- That all field staff, contractors, and volunteers are instructed on how to implement this IDP.

10. ADDITIONAL RESOURCES
Informative Video
Ecology recommends that all project staff, contractors, and volunteers view this informative video explaining the value of IDP protocol and what to do in the event of a discovery. The target audience is anyone working on the project who could unexpectedly find cultural resources or human remains while excavating or digging. The video is also posted on DAHP’s inadvertent discovery language website.

Ecology's IDP Video (https://www.youtube.com/watch?v=ioX-4cXfbDY)
Informational Resources

DAHP (https://dahp.wa.gov)
Washington State Archeology (DAHP 2003)
(https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf)
Association of Washington Archaeologists (https://www.archaeologyinwashington.com)

Potentially Interested Tribes

Interactive Map of Tribes by Area
(https://dahp.wa.gov/archaeology/tribal-consultation-information)
WSDOT Tribal Contact Website
(https://wsdot.wa.gov/tribal/TribalContacts.htm)

11. ADDITIONAL INFORMATION
Please add any additional contact information or other information needed within this IDP.
Implement the IDP if you see...

Chipped stone artifacts.

Examples are:

- Glass-like material.
- Angular material.
- "Unusual" material or shape for the area.
- Regularity of flaking.
- Variability of size.

Stone artifacts from Oregon.

Stone artifacts from Washington.

Biface-knife, scraper, or pre-form found in NE Washington. Thought to be a well knapped object of great antiquity. Courtesy of Methow Salmon Rec. Foundation.
Implement the IDP if you see...

Ground stone artifacts.

Examples are:

- Unusual or unnatural shapes or unusual stone.
- Striations or scratching.
- Etching, perforations, or pecking.
- Regularity in modifications.
- Variability of size, function, or complexity.

Above: Fishing Weight - credit CRITFC Treaty Fishing Rights website.

Artifacts from unknown locations (left and right images).
Implement the IDP if you see…

**Bone or shell artifacts, tools, or beads.**

Examples are:

- Smooth or carved materials.
- Unusual shape.
- Pointed as if used as a tool.
- Wedge shaped like a “shoehorn”.
- Variability of size.
- Beads from shell (‘coon’ or tusk.

---

Upper Left: *Bone Awls from Oregon.*

Upper Center: *Bone Wedge from California.*


Implement the IDP if you see…

Culturally modified trees, fiber, or wood artifacts.

Examples are:

- Trees with bark stripped or peeled, carvings, axe cuts, de-limbing, wood removal, and other human modifications.
- Fiber or wood artifacts in a wet environment.
- Variability of size, function, and complexity.

Left and Below: Culturally modified tree and an old carving on an aspen (Courtesy of DAHP).

Right, Top to Bottom: Artifacts from Mud Bay, Olympia: Toy war club, two strand cedar rope, wet basketry.
Implement the IDP if you see…
Strange, different, or interesting looking dirt, rocks, or shells.

Human activities leave traces in the ground that may or may not have artifacts associated with them. Examples are:

- “Unusual” accumulations of rock (especially fire-cracked rock).
- “Unusual” shaped accumulations of rock (such as a shape similar to a fire ring).
- Charcoal or charcoal-stained soils, burnt-looking soils, or soil that has a “layer cake” appearance.
- Accumulations of shell, bones, or artifacts. Shells may be crushed.
- Look for the “unusual” or out of place (for example, rock piles in areas with otherwise few rocks).

Shell Midden pocket in modern fill discovered in sewer trench.

Shell midden with fire cracked rock.

Underground oven. Courtesy of DAHP.

Hearth excavated near Hamilton, WA.
Implement the IDP if you see...

Historic period artifacts (historic archaeology considered older than 50 years).

Examples are:

- Agricultural or logging equipment. May include equipment, fencing, canals, spillways, chutes, derelict sawmills, tools, etc.
- Domestic items including square or wire nails, amethyst colored glass, or painted stoneware.

Left: Top to Bottom: Willow pattern serving bowl and slip joint pocket knife discovered during Seattle Smith Cove shantytown (45-K1-1200) excavation.

Right: Collections of historic artifacts discovered during excavations in eastern Washington cities.
Implement the IDP if you see...

Historic period artifacts (historic archaeology considered older than 50 years).

Examples are:

- Railway tokens, coins, and buttons.
- Spectacles, toys, clothing, and personal items.
- Items helping to understand a culture or identity.
- Food containers and dishware.

Main Image: Dishes, bottles, workboot found at the North Shore Japanese bathhouse (ofuro) site, Courtesy Bob Muckle, Archaeologist, Capilano University, B.C. This is an example of an above ground resource.

Right, from Top to Bottom: Coins, token, spectacles and Montgomery Ward pitchfork toy discovered during Seattle Smith Cove shantytown (45-KI-1200) excavation.
Implement the IDP if you see...

- Old munition casings – if you see ammunition of any type – always assume they are live and never touch or move!
- Tin cans or glass bottles with an older manufacturer's technique – maker's mark, distinct colors such as turquoise, or an older method of opening the container.

Far Left: .303 British cartridge found by a WCC planting crew on Skagit River. Don't ever touch something like this!
Left: Maker's mark on bottom of old bottle.

Right: Old beer can found in Oregon. ACME was owned by Olympia Brewery. Courtesy of Heather Simmons.

Logo employed by Whithall Tatum & Co. between 1924 to 1938 (Lockhart et al. 2016).

Can opening dates, courtesy of W.M. Schroeder.
Implement the IDP if you see...
You see historic foundations or buried structures.
Examples are:

- Foundations.
- Railroad and trolley tracks.
- Remnants of structures.

Counter Clockwise, Left to Right: Historic structure 45K1924, in WSDOT right of way for SR99 tunnel. Remnants of Smith Cove shantytown (45-KI-1200) discovered during Ecology CSO excavation. City of Spokane historic trolley tracks uncovered during stormwater project, intact foundation of historic home that survived the Great Ellensburg Fire of July 4, 1889, uncovered beneath parking lot in Ellensburg.
Implement the IDP if you see...

Potential human remains.

Examples are:

- Grave headstones that appear to be older than 50 years.
- Bones or bone tools--intact or in small pieces. It can be difficult to differentiate animal from human so they must be identified by an expert.
- These are all examples of animal bones and are not human.

Center: Bone wedge tool, courtesy of Smith Cove Shantytown excavation (45KI1200).

Other images (Top Right, Bottom Left, and Bottom) Center: Courtesy of DAHP.

Directly Above: This is a real discovery at an Ecology sewer project site.

What would you do if you found these items at a site? Who would be the first person you would call?

Hint: Read the plan!
Arborist Report

To: City of Tacoma, c/o Amy Anderson
Site: Madison District Green Infrastructure Project
Re: Tree Inventory
Date: February 5, 2021
Project Arborist: Josh Petter
ISA Certified Arborist #PN- 8406A
ISA Qualified Tree Risk Assessor
Tyler Bunton
ISA Certified Arborist #PN- 8715A
ISA Qualified Tree Risk Assessor

Referenced Documents: 60% Design Submittal, City of Tacoma Environmental Services Department,
Dated December 2020

Attached: Table of Trees
Tree Site Map

Summary
We assessed 29 trees in the Right-of-way (ROW) and 32 trees that are overhanging the ROW. Based on
the proposed plans and conditions of trees we recommend removing 12 trees. Of these 12 trees, 11
appear to be in the ROW (AA and BB were not surveyed), and one is on private property (CC). We
recommend retaining 20 ROW trees and the remaining adjacent off-site trees.

Assignment and Scope of Work
This report outlines the site inspection by Josh Petter and Tyler Bunton, of Tree Solutions Inc, on January
29, 2021. We were asked to visit the site and assess trees that are in close proximity to construction and
highlighted on the attached plan set. We were asked to produce an Arborist Report documenting our
findings and management recommendations. Amy Andersen, Professional Engineer at the City of
Tacoma, requested these services to determine impacts to trees in close proximity to the ROW
improvements.

Observations
Site
The project involves ROW construction along: South Puget Sound Ave, South 45th Street, South Cedar
Street, and South Junett Street. In some areas there are existing sidewalks, however, in many areas
there are no sidewalks. In many areas the ROW is compacted gravel and is being used as parking.
In some areas there are small gardens or shrubs planted in the ROW.

Proposed Plans
The most recent plans (60% Design Submittal, City of Tacoma Environmental Services Department, Dated December 2020) propose installing a porous asphalt street, planting strip, and sidewalks in areas where there are no sidewalks.

Trees
In general, the trees assessed were relatively small and widely spaced, leaving numerous available planting locations. Trees ranged widely in health and structural condition, from poor to good.

We have included an annotated survey of the site to serve as the site map and attached a table of trees that has detailed information about each tree.

Discussion—Construction Impacts
The small gardens and shrubs that line the ROW should be protected with fencing at their edges. If this is feasible the vegetation can be successfully retained throughout construction. Along South Puget Sound Ave there are a number of small diameter paperbark maple (Acer griseum) trees that are in decline (Photo 1, Photo 2). While these are unlikely to be impacted by construction they are unlikely to provide substantial benefits and could be replaced to maximize the planting areas. We have provided some additional comments directly on the attached plans.

Based on the proposed plans we recommend that 12 trees be removed. One of these trees is an off-site tree, labeled FF, and discussed in greater detail below. There are some trees that will require design modifications or special construction methods which we elaborate on below.

Where specific recommendations are not provided trees should be protected as detailed in Appendix F.

Site Trees
Tree 13 is a bigleaf maple (Acer macrophyllum) that appears to be within the footprint of a new sidewalk. This tree will have to be removed to accommodate the new sidewalk.

A new curb will be installed next to trees 23 and 24. The existing curb should be carefully removed and if roots are encountered during excavation for the new curb they should be cut cleanly at the extent of excavation; roots must be kept wet until backfilled. If roots greater than 2-inches in diameter must be cut to accommodate the new curb an International Society of Arboriculture (ISA) certified arborist should conduct a site visit to assess the structural stability of the trees.

Tree 25 is a flowering cherry (Prunus sp.) that is in poor health and structural condition. This tree is unlikely to survive for long and should be removed and replaced.

Tree 28 is a flowering cherry that is uplifting the sidewalk. These cherry trees are commonly grafted to aggressive root stock that routinely cause infrastructure conflicts. We recommend removing and replacing this tree with a different trees species in order to repair the sidewalk.
Trees 29 through 31 are sweetgums (*Liquidambar styraciflua*) that were not on the survey. These trees are all below 8-inches diameter at standard height (DSH) that will likely survive construction if fenced at their driplines. These three trees have all been topped, however, since they are relatively young it is possible to establish a new dominant leader with selective pruning.

Tree 36 is a 17.9-inch DSH Austrian pine (*Pinus nigra*) that has surface roots lifting the sidewalk (*Photo 3*). Based on the proximity of the new sidewalk and presence of surface roots it will be difficult to retain this tree. Retention could be reassessed when sidewalk panels are removed, allowing an ISA arborist to assess the impacts based on the location and depth of roots.

Trees 37 through 40 are paper birch (*Betula papyrifera*). Based on the condition of tree 37 and proximity to construction disturbances it is unlikely to survive. Trees 38 through 40 will not be substantially impacted by construction; however, they are highly susceptible to bronze birch borer (*Agrilus anxius*) when planted in harsh growing environments such as a ROW. These trees are not good long-term street trees and we recommend replacing them with more resilient tree species.

Tree 41 is a paper birch in fair health and structural condition. This tree is a couple feet away from a new sidewalk. Due to the declining condition and presence of bronze birch borer this tree is unlikely to be a good long-term candidate for retention and should be removed and replaced.

**Off-site Trees**

Tree A is a western redcedar (*Thuja plicata*) that has a sparse top (*Photo 4*), which could be from compacted soils or drought. A driveway entryway and sidewalk are proposed in close proximity to this tree. While the soils are already compacted, these impacts will negatively impact this tree. In order to retain this tree, we recommend installing a curb-tight sidewalk to provide additional tree protection. Supplemental irrigation and woodchip mulch would also be beneficial in order to help mitigate the impacts to the tree’s fine root system.

Tree C is a cedar of Lebanon (*Cedrus libani*) that is growing above the grade of the proposed sidewalk. If the retaining wall remains in place this tree should remain viable throughout construction.

Trees D through F are London Plane (*Platanus x acerifolia*) trees that are in close proximity to a new sidewalk. If the grade is mostly raised in this area it is feasible to retain these trees as they are relatively tolerant to construction disturbance.

Tree G is a Sawara cypress (*Chamaecyparis pisifera*) in good health and structural condition. The area proposed to be disturbed is compacted gravel, the tree should remain viable throughout construction.

Tree H is an English holly (*Ilex aquifolium*) that is on the state of Washington’s noxious weed monitor list, and thrives in disturbed environments. This tree should remain viable throughout construction.

Tree I is a Douglas-fir (*Pseudostuga menziesii*) that is growing above street grade; this tree should remain viable if the retaining wall remains in place.

Tree J is a Norway maple (*Acer platanoides*) in good health and fair structural condition that has been previously topped; a new and stable canopy has regrown. There are surface roots and cars parked in the dripline. This tree will remain viable if grade change is under 6 inches.
Tree T is a large Douglas-fir that has been maintained as a hedge on the lower portion of its canopy (Photo 5). This tree is further from the sidewalk than it appears and will likely remain viable if excavation for the sidewalk is conducted carefully. Branches could be pruned once construction is completed to provide additional sidewalk clearance.

Tree U is a shore pine (Pinus contorta var. contorta) that has a low canopy over the proposed sidewalk and will likely require selective pruning in order to achieve the necessary clearance. This should be done prior to construction to prevent damage from machinery.

Trees V and W are black locust (Robinia pseudoacacia) that are in close proximity to a new sidewalk and driveway entry. These trees will likely remain viable through construction if the grade change is under 6 inches as the area is already compacted gravel.

Trees AA, BB, and CC are black locust in fair to good health and fair structural condition. Trees AA and BB appear to be in the ROW, but were not surveyed, and have been topped for utility line clearance. Due to their structure and proximity to new construction these trees should be removed and replaced. Tree CC appears to be on private property. If excavation is conducted carefully with a flat-fronted bucket within the dripline and roots are cut cleanly at the extent of excavation it is feasible to retain this tree.

Tree EE is one of the larger trees assessed, at 28.3 inches DSH. There is a new sidewalk being installed towards the southeastern portion of its dripline. This tree is feasible for retention provided that roots are cut cleanly at the extent of excavation and kept moist until backfilled. This tree would benefit from woodchip mulch and supplemental irrigation.

Tree FF is a western redcedar that has been topped and has numerous branches growing vertically to create a new canopy. There is a treehouse constructed in the middle of the topping cuts, which may have been the initial reason for topping (Photo 6, Photo 7). The tree has fungal fruiting bodies present in at least three locations and likely has internal decay. Additionally, the tree’s canopy is relatively low over the proposed sidewalk. We recommend approaching the owner to remove and replace this tree as it has a short, safe, useful life expectancy.

**Recommendations**

- Provide Tree Solutions with revised plans to assess final impacts to trees.
- Add tree numbers per Tree Solutions table of trees to all plans.
- Follow Tree Protection Specifications detailed in this report and Appendix F. Use these specifications for soliciting bids for the work.
Appendix A Photographs

**Photo 1.** Small-diameter paperbark maple trees in front of 4527 South Puget Sound Ave.

**Photo 2.** Paperbark maples in front of 4522 South Puget Sound Ave were dead or in serious decline.
Photo 3. Tree 36 is in close proximity to the sidewalk and has surface roots that appear to be raising the sidewalk.
**Photo 4.** Tree A, a western redcedar tree, would require a curb-tight sidewalk in order to successfully retain

**Photo 5.** Tree T, a Douglas-fir that has been hedged; arborist for scale.
Photo 6. Western redcedar tree is pushing on the fence and has a treehouse in it. This tree has a low canopy, arborist for scale.

Photo 7. Fungal fruiting bodies, which could have entered the trunk when cuts were made to accommodate the treehouse.
Appendix B  Glossary

ANSI A300: American National Standards Institute (ANSI) standards for tree care

Basic assessment: detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (ISA 2013)

Bending moment: a turning, bending or twisting force exerted by a lever, defined as the force (acting perpendicular to the lever) multiplied by the length of the lever (see moment) (ISA 2013)

Chlorotic: foliage with whitish or yellowish discoloration caused by lack of chlorophyll

Codominant stems: stems or branches of nearly equal diameter, often weakly attached (Matheny et al. 1998)

Cracks: defects in trees that, if severe, may pose a risk of tree or branch failure (Lilly 2001)

Crown: the aboveground portions of a tree (Lilly 2001)

DBH or DSH: diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade (Council of Tree and Landscape Appraisers 2019)

Deciduous: tree or other plant that loses its leaves sometime during the year and stays leafless generally during the cold season (Lilly 2001)

Epicormic: arising from latent or adventitious buds (Lilly 2001)

Evergreen: tree or plant that keeps its needles or leaves year round; this means for more than one growing season (Lilly 2001)

Force: any action or influence causing an object to accelerate/decelerate. Calculated as mass multiplied by acceleration. Is a vector quantity (ISA 2013)

Increment: the amount of new wood fiber added to a tree in a given period, normally one year. (Dunster 1996)

ISA: International Society of Arboriculture

Included bark: bark that becomes embedded in a crotch between branch and trunk or between codominant stems and causes a weak structure (Lilly 2001)

Landscape function: the environmental, aesthetic, or architectural functions that a plant can have (Lilly 2001)

Lateral: secondary or subordinate branch (Lilly 2001)

Level(s) of assessment: categorization of the breadth and depth of analysis used in an assessment (ISA 2013)

Lever arm: the distance between the applied force (or center of force) and the point where the object will bend or rotate (ISA 2013)

Limited visual assessment: a visual assessment from a specified perspective such as foot, vehicle, or aerial (airborne) patrol of an individual tree or a population of trees near specified targets to identify specified conditions or obvious defects (ISA 2013)

Mitigation: process of reducing damages or risk (Lilly 2001)
moment: a turning, bending, or twisting force exerted by a lever, defined as the force (acting perpendicular to the lever) multiplied by the length of the lever (ISA 2013)

monitoring: keeping a close watch; performing regular checks or inspections (Lilly 2001)

owner/manager: the person or entity responsible for tree management or the controlling authority that regulates tree management (ISA 2013)

pathogen: causal agent of disease (Lilly 2001)

phototropic growth: growth toward light source or stimulant (Harris et al. 1999)

retain and monitor: the recommendation to keep a tree and conduct follow-up assessments after a stated inspection interval (ISA 2013)

soil structure: the arrangement of soil particles (Lilly 2001)

structural defects: flaws, decay, or other faults in the trunk, branches, or root collar of a tree, which may lead to failure (Lilly 2001)

Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth (Mattheck & Breloer 1994)

walk-by (assessment): a limited visual inspection, usually from one side of the tree, performed as the tree risk assessor walks by the tree(s) (ISA 2013)
Appendix C References


Appendix D Assumptions & Limiting Conditions

1 Consultant assumes that the site and its use do not violate, and is in compliance with, all applicable codes, ordinances, statutes or regulations.

2 The consultant may provide a report or recommendation based on published municipal regulations. The consultant assumes that the municipal regulations published on the date of the report are current municipal regulations and assumes no obligation related to unpublished city regulation information.

3 Any report by the consultant and any values expressed therein represent the opinion of the consultant, and the consultant’s fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event, or upon any finding to be reported.

4 All photographs included in this report were taken by Tree Solutions, Inc. during the documented site visit, unless otherwise noted. Sketches, drawings and photographs (included in, and attached to, this report) are intended as visual aids and are not necessarily to scale. They should not be construed as engineering drawings, architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.

5 Unless otherwise agreed, (1) information contained in any report by consultant covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring.

6 These findings are based on the observations and opinions of the authoring arborist, and do not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described and assessed.

7 Measurements are subject to typical margins of error, considering the oval or asymmetrical cross-section of most trunks and canopies.

8 Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site’s soil should be obtained by a qualified professional if an additional understanding of the site’s characteristics is needed to make an informed decision.

9 Our assessments are made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
Appendix E  Methods

Measuring
I measured the diameter of each tree at 54 inches above grade, diameter at standard height (DSH). If a tree had multiple stems, I measured each stem individually at standard height and determined a single-stem equivalent diameter by using the method outlined in the Guide for Plant Appraisal, 10th Edition Second Printing published by the Council of Tree and Landscape Appraisers. A tree is regulated based on this single-stem equivalent diameter value. Because this value is calculated in the office following field work, some trees in our data set may have diameters smaller than 6 inches. These trees are included in the tree table for informational purposes only and not factored into tree totals discussed in this report.

Tagging
I tagged each tree with a circular aluminum tag at eye level. I assigned each tree a numerical identifier on our map and in our tree table, corresponding to this tree tag. I used alphabetical identifiers for trees off-site.

Evaluating
I evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. An understanding of the uniform stress allows the arborist to make informed judgments about the condition of a tree.

Rating
When rating tree health, I took into consideration crown indicators such as foliar density, size, color, stem and shoot extensions. When rating tree structure, I evaluated the tree for form and structural defects, including past damage and decay. Tree Solutions has adapted our ratings based on the Purdue University Extension formula values for health condition (Purdue University Extension bulletin FNR-473-W - Tree Appraisal). These values are a general representation used to assist arborists in assigning ratings.

Excellent - Perfect specimen with excellent form and vigor, well-balanced crown. Normal to exceeding shoot length on new growth. Leaf size and color normal. Trunk is sound and solid. Root zone undisturbed. No apparent pest problems. Long safe useful life expectancy for the species.

Good - Imperfect canopy density in few parts of the tree, up to 10% of the canopy. Normal to less than ¼ typical growth rate of shoots and minor deficiency in typical leaf development. Few pest issues or damage, and if they exist they are controllable or tree is reacting appropriately. Normal branch and stem development with healthy growth. Safe useful life expectancy typical for the species.

Fair - Crown decline and dieback up to 30% of the canopy. Leaf color is somewhat chlorotic/necrotic with smaller leaves and “off” coloration. Shoot extensions indicate some stunting and stressed growing conditions. Stress cone crop clearly visible. Obvious signs of pest problems contributing to lesser condition, control might be possible. Some decay areas found in main stem and branches. Below average safe useful life expectancy

Poor - Lacking full crown, more than 50% decline and dieback, especially affecting larger branches. Stunting of shoots is obvious with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe and uncontrollable. Extensive decay or hollows in branches and trunk. Short safe useful life expectancy.
Appendix F Tree Protection Specifications

The following is a list of protection measures that must be employed before, during and after construction to ensure the long-term viability of retained trees. These protection measures are in addition to the requirements in chapter 7 of the City of Tacoma Urban Forest Manual (UFM Ch. 7). If any of these specifications conflicts with the requirements in UFM Ch. 7, the requirements of UFM Ch. 7 or these specifications providing the most protection for retained trees shall be used.

1. **Project Arborist**: The project arborists shall at minimum have an International Society of Arboriculture (ISA) Certification and ISA Tree Risk Assessment Qualification.

2. **Tree Protection Zone (TPZ)**: The City of Tacoma requires a TPZ of 1 radial foot for every 1-inch DSH or the dripline, whichever is greater. Work within the TPZ must be approved and monitored by the project arborist.

3. **Tree Protection Fencing**: Tree protection shall consist of 6-foot chain-link fencing installed at the TPZ as approved by the project arborist. Fence posts shall be anchored into the ground or bolted to existing hardscape surfaces.
   a. Where trees are being retained as a group the fencing shall encompass the entire area including all landscape beds or lawn areas associated with the grove.
   b. Per arborist approval, TPZ fencing may be placed at the edge of existing hardscape within the TPZ to allow for staging and traffic.
   c. Where work is planned within the TPZ, install fencing at edge of TPZ and move to limits of disturbance at the time that the work within the TPZ is planned to occur. This ensures that work within the TPZ is completed to specification.
   d. Where trees are protected at the edge of the project boundary, construction limits fencing shall be incorporated as the boundary of tree protection fencing.

4. **Access Beyond Tree Protection Fencing**: In areas where work such as installation of utilities is required within the TPZ, a locking gate will be installed in the fencing to facilitate access. The project manager or project arborist shall be present when tree protection areas are accessed.

5. **Tree Protection Signage**: Tree protection signage shall be affixed to fencing every 20 feet. Signage shall be fluorescent, at least 2’ x 2’ in size, with 3” tall text. Signage will note: “Tree Protection Area – Do Not Enter: Entry into the tree protection area is prohibited unless authorized by the project manager.” Signage shall include the contact information for the project manager and instructions for gaining access to the area.

6. **Filter / Silt Fencing**: Filter / silt fencing within the TPZ of retained trees shall be installed in a manner that does not sever roots. Install so that filter / silt fencing sits on the ground and is weighed in place by sandbags or gravel. Do not trench to insert filter / silt fencing into the ground.

7. **Monitoring**: The project arborist shall monitor all ground disturbance at the edge of or within the TPZ, including where the TPZ extends beyond the tree protection fencing.

8. **Soil Protection**: No parking, foot traffic, materials storage, or dumping (including excavated soils) are allowed within the TPZ. Heavy machinery shall remain outside of the TPZ. Access to the tree protection area will be granted under the supervision of the project arborist. If project arborist allows, heavy machinery can enter the area if soils are protected from the load. Acceptable methods of soil protection include applying 3/4-inch plywood over 4 to 6 inches of wood chip mulch or use of AlturnaMats® (or equivalent product approved by the project arborist). Retain existing paved surfaces within or at the edge of the TPZ for as long as possible.

9. **Soil Remediation**: Soil compacted within the TPZ of retained trees shall be remediated using pneumatic air excavation according to a specification produced by the project arborist.
10. **Canopy Protection:** Where fencing is installed at the limits of disturbance within the TPZ, canopy management (pruning or tying back) shall be conducted to ensure that vehicular traffic does not damage canopy parts. Exhaust from machinery shall be located five feet outside the dripline of retained trees. No exhaust shall come in contact with foliage for prolonged periods of time.

11. **Duff/Mulch:** Apply 6 inches of arborist wood chip mulch or hog fuel over bare soil within the TPZ to prevent compaction and evaporation. TPZ shall be free of invasive weeds to facilitate mulch application. Keep mulch 1 foot away from the base of trees and 6 inches from retained understory vegetation. Retain and protect as much of the existing duff and understory vegetation as possible.

12. **Excavation:** Excavation done at the edge of or within the TPZ shall use alternative methods such as pneumatic air excavation or hand digging. If heavy machinery is used, use flat front buckets with the project arborist spotting for roots. When roots are encountered, stop excavation and cleanly sever roots. The project arborist shall monitor all excavation done within the TPZ.

13. **Fill:** Limit fill to 1 foot of uncompacted well-draining soil, within the TPZ of retained trees. In areas where additional fill is required, consult with the project arborist. Fill must be kept at least 1 foot from the trunks of trees.

14. **Root Pruning:** Limit root pruning to the extent possible. All roots shall be pruned with a sharp saw making clean cuts. Do not fracture or break roots with excavation equipment.

15. **Root Moisture:** Root cuts and exposed roots shall be immediately covered with soil, mulch, or clear polyethylene sheeting and kept moist. Water to maintain moist condition until the area is back filled. Do not allow exposed roots to dry out before replacing permanent back fill.

16. **Hardscape Removal:** Retain hardscape surfaces for as long as practical. Remove hardscape in a manner that does not require machinery to traverse newly exposed soil within the TPZ. Where equipment must traverse the newly exposed soil, apply soil protection as described in section 8. Replace fencing at edge of TPZ if soil exposed by hardscape removal will remain for any period of time.

17. **Tree Removal:** All trees to be removed that are located within the TPZ of retained trees shall not be ripped, pulled, or pushed over. The tree should be cut to the base and the stump either left or ground out. A flat front bucket can also be used to sever roots around all sides of the stump, or the roots can be exposed using hydro or air excavation and then cut before removing the stump.

18. **Irrigation:** Retained trees with soil disturbance within the TPZ will require supplemental water from June through September. Acceptable methods of irrigation include drip, sprinkler, or watering truck. Trees shall be watered three times per month during this time.

19. **Pruning:** Pruning required for construction and safety clearance shall be done with a pruning specification provided by the project arborist in accordance with American National Standards Institute ANSI-A300 2017 Standard Practices for Pruning. Pruning shall be conducted or monitored by an arborist with an ISA Certification.

20. **Plan Updates:** All plan updates or field modification that result in impacts within the TPZ or change the retained status of trees shall be reviewed by the senior project manager and project arborist prior to conducting the work.

21. **Materials:** Contractor shall have the following materials onsite and available for use during work in the TPZ:
   - Sharp and clean bypass hand pruners
   - Sharp and clean bypass loppers
   - Sharp hand-held root saw
   - Reciprocating saw with new blades
   - Shovels
   - Trowels
   - Clear polyethylene sheeting
   - Burlap
   - Water
### Table of Trees

*Madison District Green Infrastructure Project, Tacoma*

<table>
<thead>
<tr>
<th>Tree ID</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>DSH (inches)</th>
<th>DSH Multistem</th>
<th>Health Condition</th>
<th>Structural Condition</th>
<th>Dripline Radius (feet)</th>
<th>Proposed Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Acer macrophyllum</td>
<td>Bigleaf Maple</td>
<td>14.0</td>
<td>11.6,7.8</td>
<td>Good</td>
<td>Good</td>
<td>13.6</td>
<td>Remove</td>
<td>Very close to the sidewalk; compacted soils and driveway within dripline; powerlines overhead</td>
</tr>
<tr>
<td>14</td>
<td>Thuja occidentalis</td>
<td>Arborvitae</td>
<td>2.8</td>
<td>1.1,1,1,2</td>
<td>Good</td>
<td>Good</td>
<td>5.1</td>
<td>Retain</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Thuja occidentalis</td>
<td>Arborvitae</td>
<td>3.0</td>
<td>2,2,1</td>
<td>Good</td>
<td>Good</td>
<td>4.1</td>
<td>Remove</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Thuja occidentalis</td>
<td>Arborvitae</td>
<td>3.6</td>
<td>3</td>
<td>Good</td>
<td>Good</td>
<td>4.2</td>
<td>Remove</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Thuja occidentalis</td>
<td>Arborvitae</td>
<td>2.4</td>
<td>1,1,1,1,1,1</td>
<td>Good</td>
<td>Good</td>
<td>4.1</td>
<td>Retain</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Malus sp.</td>
<td>Apple</td>
<td>6.5</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>9.3</td>
<td>Remove</td>
<td>Will likely have to remove</td>
</tr>
<tr>
<td>19</td>
<td>Cercis canadensis</td>
<td>Redbud</td>
<td>5.7</td>
<td>3,4,3,2,2,2</td>
<td>Good</td>
<td>Fair</td>
<td>7.2</td>
<td>Retain</td>
<td>Narrow branch unions</td>
</tr>
<tr>
<td>20</td>
<td>Acer griseum</td>
<td>Paperbark Maple</td>
<td>2.0</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>3.1</td>
<td>Retain</td>
<td>Undeveloped root system; add mulch and irrigation</td>
</tr>
<tr>
<td>21</td>
<td>Carpinus betulus</td>
<td>European Hornbeam</td>
<td>2.0</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>2.1</td>
<td>Retain</td>
<td>Not tagged due to size</td>
</tr>
<tr>
<td>22</td>
<td>Carpinus betulus</td>
<td>European Hornbeam</td>
<td>2.0</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>2.1</td>
<td>Retain</td>
<td>Not tagged due to size</td>
</tr>
<tr>
<td>23</td>
<td>Cercis canadensis</td>
<td>Redbud</td>
<td>11.5</td>
<td>3,7,3,4,4,4,6</td>
<td>Good</td>
<td>Good</td>
<td>12.5</td>
<td>Retain</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Laburnum x Watereri,</td>
<td>Golden chain tree</td>
<td>14.8</td>
<td>6,5,5,4,5,6,</td>
<td>Good</td>
<td>Good</td>
<td>9.6</td>
<td>Retain</td>
<td>Golden chain tree, narrow unions with included bark</td>
</tr>
<tr>
<td></td>
<td>Laburnum Vossii</td>
<td></td>
<td></td>
<td>4,5,5,7,3,5,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6,3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Prunus spp. (serrula,</td>
<td>Flowering Cherry</td>
<td>6.0</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>6.3</td>
<td>Remove</td>
<td>Gummosis; wound at base; remove and replace</td>
</tr>
<tr>
<td></td>
<td>serrulata)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Acer x Freemanii</td>
<td>Freeman maple</td>
<td>4.6</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>8.2</td>
<td>Retain</td>
<td>Wound and fungi at base</td>
</tr>
<tr>
<td>27</td>
<td>Acer x Freemanii</td>
<td>Freeman maple</td>
<td>4.4</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>7.2</td>
<td>Retain</td>
<td>Surface roots girdling tree</td>
</tr>
<tr>
<td>28</td>
<td>Prunus spp. (serrula,</td>
<td>Flowering Cherry</td>
<td>11.7</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>15.5</td>
<td>Remove</td>
<td>Sidewalk cracked and raising</td>
</tr>
<tr>
<td></td>
<td>serrulata)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Liquidambar styraciflua</td>
<td>Sweetgum</td>
<td>7.6</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>11.3</td>
<td>Retain</td>
<td>Topped; could reestablish dominant leader</td>
</tr>
<tr>
<td>30</td>
<td>Liquidambar styraciflua</td>
<td>Sweetgum</td>
<td>7.1</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>11.3</td>
<td>Retain</td>
<td>Surface roots; previously topped; could regrow dominant leader</td>
</tr>
<tr>
<td>31</td>
<td>Liquidambar styraciflua</td>
<td>Sweetgum</td>
<td>8.8</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>13.4</td>
<td>Retain</td>
<td>Surface roots; previously topped; could regrow dominant leader</td>
</tr>
<tr>
<td>32</td>
<td>Pyrus calleryana</td>
<td>Callery Pear</td>
<td>5.2</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>10.2</td>
<td>Retain</td>
<td>Not on survey</td>
</tr>
<tr>
<td>33</td>
<td>Pyrus calleryana</td>
<td>Callery Pear</td>
<td>6.8</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>12.3</td>
<td>Retain</td>
<td>Not on survey</td>
</tr>
<tr>
<td>34</td>
<td>Pyrus calleryana</td>
<td>Callery Pear</td>
<td>5.0</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>8.2</td>
<td>Retain</td>
<td>Not on survey</td>
</tr>
<tr>
<td>35</td>
<td>Pyrus calleryana</td>
<td>Callery Pear</td>
<td>6.4</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>14.3</td>
<td>Retain</td>
<td>Not on survey</td>
</tr>
<tr>
<td>36</td>
<td>Pinus nigra</td>
<td>Austrian Black Pine</td>
<td>17.9</td>
<td>9,4,8,3,8,5,</td>
<td>Good</td>
<td>Good</td>
<td>14.7</td>
<td>Remove</td>
<td>Surface roots; raising sidewalk; low canopy; some dieback</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Betula papyrifera</td>
<td>Paper Birch</td>
<td>3.2</td>
<td>2,2.5</td>
<td>Fair</td>
<td>Fair</td>
<td>6.1</td>
<td>Remove</td>
<td>Coadominant; low vigor; white birch not a good longterm tree due to bronze birch borer</td>
</tr>
<tr>
<td>38</td>
<td>Betula papyrifera</td>
<td>Paper Birch</td>
<td>5.2</td>
<td>3,4,3,2,5</td>
<td>Good</td>
<td>Good</td>
<td>9.2</td>
<td>Retain</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Betula papyrifera</td>
<td>Paper Birch</td>
<td>5.9</td>
<td>2,5,5,3</td>
<td>Good</td>
<td>Good</td>
<td>8.2</td>
<td>Retain</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Betula papyrifera</td>
<td>Paper Birch</td>
<td>6.2</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>8.3</td>
<td>Retain</td>
<td>Small diameter trunk removed near base</td>
</tr>
<tr>
<td>41</td>
<td>Betula papyrifera</td>
<td>Paper Birch</td>
<td>4.0</td>
<td>2,3,5</td>
<td>Fair</td>
<td>Fair</td>
<td>6.2</td>
<td>Remove</td>
<td></td>
</tr>
</tbody>
</table>

DSH (Diameter at Standard Height) is measured 4.5 feet above grade, or as specified in the *Guide for Plant Appraisal, 10th Edition*, published by the Council of Tree and Landscape Architects. DSH for multi-stem trees are noted as a single stem equivalent, which is calculated using the method defined in the *Guide for Plant Appraisal, 10th Edition*. Letters are used to identify trees on neighboring property with overhanging canopies.

Dripline is measured from the center of the tree to the outermost extent of the canopy.
### Table of Trees
Madison District Green Infrastructure Project, Tacoma

<table>
<thead>
<tr>
<th>Tree ID</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>DSH (inches)</th>
<th>DSH Multistem</th>
<th>Health Condition</th>
<th>Structural Condition</th>
<th>Dripine Radius (feet)</th>
<th>Proposed Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Thuja plicata</td>
<td>Western Redcedar</td>
<td>34.1</td>
<td>26,22</td>
<td>Fair</td>
<td>Good</td>
<td>14.4</td>
<td>Retain</td>
<td>Top decline which could be from drought and compaction; 3 feet of top broken</td>
</tr>
<tr>
<td>B</td>
<td>Chamaecyparis lawsoniana</td>
<td>Lawson Cypress</td>
<td>15.0</td>
<td>Good</td>
<td>Good</td>
<td>12.6</td>
<td>Retain</td>
<td>Compacted gravel in dripline</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Cedrus libani</td>
<td>Cedar of Lebanon</td>
<td>14.0</td>
<td>Good</td>
<td>Good</td>
<td>14.6</td>
<td>Retain</td>
<td>If retaining wall stays this tree will remain viable</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Platanus acerifolia</td>
<td>London Plane</td>
<td>12.1</td>
<td>6,6,5,7</td>
<td>Good</td>
<td>Good</td>
<td>13.5</td>
<td>Retain</td>
<td>Multistem at base; leaves piled at base; compacted soils in right of way; if raising grade should remain viable</td>
</tr>
<tr>
<td>E</td>
<td>Platanus acerifolia</td>
<td>London Plane</td>
<td>14.0</td>
<td>Good</td>
<td>Good</td>
<td>15.6</td>
<td>Retain</td>
<td>If raising grade should remain viable</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Platanus acerifolia</td>
<td>London Plane</td>
<td>12.0</td>
<td>Good</td>
<td>Good</td>
<td>15.5</td>
<td>Retain</td>
<td>If raising grade should remain viable</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Chamaecyparis pisifera</td>
<td>Sawara Cypress</td>
<td>15.6</td>
<td>12,10</td>
<td>Good</td>
<td>Good</td>
<td>13.7</td>
<td>Retain</td>
<td>Compacted gravel driveway</td>
</tr>
<tr>
<td>H</td>
<td>Ilex aquifolium</td>
<td>English holly</td>
<td>19.2</td>
<td>12,15</td>
<td>Good</td>
<td>Good</td>
<td>13.8</td>
<td>Retain</td>
<td>Resilient to disturbance</td>
</tr>
<tr>
<td>I</td>
<td>Pseudotsuga menziesii</td>
<td>Douglas-fir</td>
<td>13.0</td>
<td>Good</td>
<td>Good</td>
<td>12.5</td>
<td>Retain</td>
<td>Raised above street grade; ivy at base; should remain viable if retaining wall stays in place</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Acer platanoides</td>
<td>Norway maple</td>
<td>0.0</td>
<td>26.0</td>
<td>Good</td>
<td>Fair</td>
<td>22.0</td>
<td>Retain</td>
<td>Previously topped; surface roots; cars parked in dripline; will remain viable if grade change is minimal</td>
</tr>
<tr>
<td>K</td>
<td>Acer palmatum</td>
<td>Japanese Maple</td>
<td>15.6</td>
<td>10,12</td>
<td>Good</td>
<td>Fair</td>
<td>16.7</td>
<td>Retain</td>
<td>Narrow unions; included bark; likely ok due to distance</td>
</tr>
<tr>
<td>L</td>
<td>Pseudotsuga menziesii</td>
<td>Douglas-fir</td>
<td>15.0</td>
<td>Good</td>
<td>Good</td>
<td>9.6</td>
<td>Retain</td>
<td>Sidewalk raising in dripline</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Chamaecyparis lawsoniana</td>
<td>Lawson Cypress</td>
<td>11.6</td>
<td>5,5,6,7</td>
<td>Good</td>
<td>Good</td>
<td>9.5</td>
<td>Retain</td>
<td>Low canopy; hedge form</td>
</tr>
<tr>
<td>N</td>
<td>Prunus spp. (serrula, serrulata)</td>
<td>Flowering Cherry</td>
<td>9.0</td>
<td>Good</td>
<td>Good</td>
<td>10.4</td>
<td>Retain</td>
<td>Surface roots</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>Prunus spp. (serrula, serrulata)</td>
<td>Flowering Cherry</td>
<td>6.0</td>
<td>Good</td>
<td>Good</td>
<td>8.3</td>
<td>Retain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Acer rubrum</td>
<td>Red Maple</td>
<td>7.0</td>
<td>Good</td>
<td>Fair</td>
<td>8.3</td>
<td>Retain</td>
<td>Large tear out at 6 feet</td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>Acer rubrum</td>
<td>Red Maple</td>
<td>5.0</td>
<td>Good</td>
<td>Good</td>
<td>8.2</td>
<td>Retain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Prunus spp. (serrula, serrulata)</td>
<td>Flowering Cherry</td>
<td>7.0</td>
<td>Good</td>
<td>Good</td>
<td>8.3</td>
<td>Retain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Prunus spp. (serrula, serrulata)</td>
<td>Flowering Cherry</td>
<td>7.0</td>
<td>Good</td>
<td>Good</td>
<td>8.3</td>
<td>Retain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>Pseudotsuga menziesii</td>
<td>Douglas-fir</td>
<td>18.0</td>
<td>Good</td>
<td>Good</td>
<td>15.8</td>
<td>Retain</td>
<td>Hedged Douglas-Fir; probably can retain</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>Pinus contorta var. contorta</td>
<td>Shore pine</td>
<td>12.0</td>
<td>Good</td>
<td>Fair</td>
<td>17.5</td>
<td>Retain</td>
<td>Low canopy over new walk, selective canopy raising required; codominant at 5 feet</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Robinia pseudoacacia</td>
<td>Black locust</td>
<td>20.6</td>
<td>16,13</td>
<td>Good</td>
<td>Good</td>
<td>19.9</td>
<td>Retain</td>
<td>Ok if grade raising grade; compacted soils already</td>
</tr>
<tr>
<td>W</td>
<td>Robinia pseudoacacia</td>
<td>Black locust</td>
<td>30.0</td>
<td>Good</td>
<td>Good</td>
<td>26.3</td>
<td>Retain</td>
<td>Ok if grade raising grade; compacted soils already</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Cercis canadensis</td>
<td>Redbud</td>
<td>7.0</td>
<td>Good</td>
<td>Good</td>
<td>7.3</td>
<td>Retain</td>
<td>In row of trees; similar size; unlikely to be impacted</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Pyrus calleryana</td>
<td>Callery Pear</td>
<td>5.0</td>
<td>Good</td>
<td>Good</td>
<td>7.2</td>
<td>Retain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Table of Trees

**Madison District Green Infrastructure Project, Tacoma**

<table>
<thead>
<tr>
<th>Tree ID</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>DSH (inches)</th>
<th>DSH Multistem</th>
<th>Health Condition</th>
<th>Structural Condition</th>
<th>Dripline Radius (feet)</th>
<th>Proposed Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>Robinia pseudoacacia</td>
<td>Black locust</td>
<td>23.0</td>
<td>Good</td>
<td>Good</td>
<td>20.0</td>
<td>Retain</td>
<td>Heavy ivy on trunk and base</td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>Robinia pseudoacacia</td>
<td>Black locust</td>
<td>12.0</td>
<td>Fair</td>
<td>Fair</td>
<td>16.5</td>
<td>Remove</td>
<td>Topped for power lines; possibly in ROW</td>
<td></td>
</tr>
<tr>
<td>BB</td>
<td>Robinia pseudoacacia</td>
<td>Black locust</td>
<td>12.0</td>
<td>Fair</td>
<td>Fair</td>
<td>14.5</td>
<td>Remove</td>
<td>Topped for power lines; possibly in ROW</td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>Robinia pseudoacacia</td>
<td>Black locust</td>
<td>34.1</td>
<td>26,22</td>
<td>Good</td>
<td>20.4</td>
<td>Retain</td>
<td>Codominant at base with included bark; heavy ivy</td>
<td></td>
</tr>
<tr>
<td>DD</td>
<td>Pinus contorta var. contorta</td>
<td>Shore pine</td>
<td>19.0</td>
<td>Good</td>
<td>Good</td>
<td>17.8</td>
<td>Retain</td>
<td>Will likely be ok; low canopy over new sidewalk</td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>Thuja plicata</td>
<td>Western Redcedar</td>
<td>28.3</td>
<td>Good</td>
<td>Good</td>
<td>18.2</td>
<td>Retain</td>
<td>Indiscriminate pruning cuts for clearance; careful construction required</td>
<td></td>
</tr>
<tr>
<td>FF</td>
<td>Thuja plicata</td>
<td>Western Redcedar</td>
<td>29.2</td>
<td>18,23</td>
<td>Fair</td>
<td>17.2</td>
<td>Remove</td>
<td>Treehouse in canopy; topped; fungal fruiting bodies present; compacted soils; included bark</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX F

CITY OF TACOMA

INSURANCE REQUIREMENTS
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
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:

4.1.1 A per project aggregate policy limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

4.1.2

4.2 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.

4.3 Workers’ Compensation

4.3.1 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.

4.4 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.

4.5 Professional Liability Insurance or Errors and Omissions

Contractor and/or its subcontractor shall maintain Professional Liability or Errors and Omissions with limits of One Million Dollars ($1,000,000) per claim and Two Million Dollars ($2,000,000) in the aggregate covering acts, errors and omissions arising out of the professional services under this Contract.

If the policy limit includes the payment of claims or defense costs, from the policy limit, the per claim limit shall be Two Million Dollars ($2,000,000).

If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability policy shall include Pollution Liability coverage.

If provided on a “claims-made” basis, such coverage shall be maintained by policy renewals or an extended reporting period endorsement for not less than three years following the end of the Contract.

4.6 Excess or Umbrella Liability Insurance

Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than Ten Million Dollars ($10,000,000) 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 Owners and Contractors Protective Liability Insurance
Contactor shall maintain during the performance of all work pursuant to the Contract, an ISO form Owners and Contractors Protective Liability policy, on which City of Tacoma shall be a named insured. Said policy shall provide coverage for bodily injury and property damage arising from the work to be performed under the Contract, and shall have policy limits of no less than Ten Million Dollars ($10,000,000) combined single limit of liability with a dedicated aggregate limit of no less than Ten Million Dollars ($10,000,000).

4.9 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.
APPENDIX G

CITY OF TACOMA

TRAFFIC CONTROL HANDBOOK
TRAFFIC CONTROL HANDBOOK

MUST MAINTAIN PEDESTRIAN AND DISABILITY ACCESS AT ALL TIMES
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Special Traffic Requirements

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Shoulder Work with Minor Encroachment
Two Lane Road with Center Closure
Two-Way Lane Shift with Parking
Right Lane Closure
Right Lane Closure at Intersection
Left Lane Closure At Intersection
One Way Street Multi-Lane Closure
Four Lane Road – Two Lane Closure
Five Lane Road Multi-Lane Closure
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Mid-Block Lane Closure
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Traffic Control for Portable Dumpsters
Traffic Control for Moving Van
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SURVEY CREWS

Survey Two Lane Arterial Intersection
Survey Two Lane Arterial Mid Block
Survey Multi-Lane Arterial

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”

The City of Tacoma Traffic Control Handbook will open up in a new screen.

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.

This manual shall be used in conjunction with Part VI of The Manual on Uniform Traffic Control Devices (MUTCD) for the installation of temporary traffic control and the Access Board's Guidelines for Accessible Public Rights-of-Way (2002), (www.access-board.gov),

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/Inter/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.

<table>
<thead>
<tr>
<th>Department</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
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<tbody>
<tr>
<td>Traffic Engineering</td>
<td>591-5500</td>
<td>591-5533</td>
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<tr>
<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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<tr>
<td>Tacoma Police –Ops</td>
<td>591-5932</td>
<td>594-7842</td>
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<td>LESA</td>
<td>798-4721</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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<tr>
<td>School Trans Office</td>
<td>571-1853</td>
<td>571-1932</td>
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<td>Durham School Services</td>
<td>475-0422</td>
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<td>First Students</td>
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<td>UWT Facilities Services</td>
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<td>692-5705</td>
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<tr>
<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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<tr>
<td>Tacoma Refuse</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.
SINGLE LANE NON-ARTERIAL WITH FLAGGER

☐ 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 30-40 MPH SIGNS MUST BE PLACED 150 APART.
CBD RIGHT LANE CLOSURE

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 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 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 Thursday morning through Saturday night.

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.

Offset cones 1 foot maximum.
### Shoulder Work with Minor Encroachment

- **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.

### Notes:
- **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 Beaver Business District 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.
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: ______________________________________________________________

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 35-40 MPH signs must be placed 300' 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:________________________

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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 on 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.
RIGHT LANE CLOSURE

☐ 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
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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 Phoenix 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.
RIGHT LANE CLOSURE AT INTERSECTION

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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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 120' 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
(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 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 150' APART.
SAMPLE SETUP

One Way Multi-Lane Closure

Works Zone

RESIDENTIAL STREET

RESIDENTIAL STREET

Residential Street

RESIDENTIAL STREET

RESIDENTIAL STREET

Merger Taper Lengths for Cone Pattern

(All Minimums)

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Number of Channelization Devices (Cones)

Offset cones 1 foot maximum.

Note 1: Maintain legal 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 150' apart.
FOUR LANE ROAD
TWO LANE CLOSURE
ARTERIAL STREET

☐ 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)
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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: All work shall be scheduled on streets or walkways within the city of Tacoma business districts from November 25 through December 25.
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

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MERGING TAPER LENGTHS
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NUMBER OF CHANNELIZATION DEVICES (CONES)
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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 INDIAN BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR’S DAY.

NOTE 3: SIGN SPACING. URBAN LOW SPEED 20-30 MPH SIGNS MUST BE PLACED 100’ APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 300’ 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 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 leaving 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.
LEhend
1. Night work requires additional roadway lighting & flagging stations.
2. Protective vehicle recommended - may be a work vehicle.
3. Each roundabout location is unique and 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.

Typical Roundabout Traffic Control with Flaggers

Approved 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

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Number of channelization devices (cones):

Offset cones 1 foot maximum.

Notes:
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.
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.
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.
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**

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**Offset Cones** 1 foot maximum.

**Notes:**

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.

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.

Nose cones for truck optional.

Workers must be protected by vehicle equipped with auxiliary beacons/strobes and a high visibility illuminated arrow device.

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:

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 Rockwood 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.
Workers must be protected by vehicle equipped with auxiliary beacons/strbes and a high visibility illuminated arrow device.

LANE CLOSURE AT INTERSECTION 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)

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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 zone. 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 Indian business districts during Thanksgiving Day and/or New Year's Day.

NOTE 3: Sign Spacing: Urban low speed 25-30 MPH signs must be placed 130' apart. Urban high speed 35-40 MPH signs must be placed 150' apart.
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)

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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 long beach 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.
Traffic Control Recommendations
For Truck Crossing

☑ 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 legal access and protected sidewalk 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 and/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 150' 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:__________________________

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 SACRAMENTO 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.

MERGING TAPER LENGTHS FOR CONE PATTERN

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NUMBER OF CHANNELIZATION DEVICES (Cones)

Offset cones 1 foot maximum.
TRAFFIC CONTROL FOR MOVING VAN

- Place no-park signs 24hrs in advance
- Cones

| 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 of 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 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:
☐ 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 TRAILED 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 350' 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:
☐ 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.
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

TIME: 9:16:39 AM
DATE: 9/16/2012
PLOTTED BY: Cyntia
REVISION: 10 WASH

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
PEDESTRIAN CONTROL AND PROTECTION
SIDEWALK CLOSURE

☐ 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

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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 clear of debris dropped or tracked by vehicles entering or exiting the work site. Failure to comply will result in 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.
A flagger must be with the surveyor to direct turning traffic with the signal indications.

SURVEY
TWO LANE ARTERIAL 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: ____________________________

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(All minimums)

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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 [insert city name] 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.
SAMPLE SETUP

SURVEY CREW AHEAD

SURVEY
TWO LANE ARTERIAL MID-BLOCK

☐ 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: __________________________
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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 Tamaqua 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.
Flagger or vehicle with arrow board to protect survey equipment operator in nonpeak traffic.
### Traffic Control Recommendations

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

**Start Traffic Control Setup Date:**

**Must Be Out of the Road by Date:**

**Evening and Weekends Only**

**Start Traffic Control Setup 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:**

- **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 [Name] 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

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: ____________________________

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 Idaho Business Districts from Thanksgiving Day through New Year's Day.

Note 3: Sign spacing: Urban low speed 20-30 mph signs must be placed 100' apart. Urban high speed 35-40 mph signs must be placed 300' 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
START TRAFFIC CONTROL SET UP DATE & TIME: __________________________
MUST BE OUT OF THE ROAD BY DATE & TIME: __________________________

MERGING TAPER LENGTHS
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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 LEFT CLEAR OF DEBRIS DROPPED OR TRACED 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 300' APART.
SAMPLE SETUP

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

START TRAFFIC CONTROL SET UP DATE & TIME: __________________________

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

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MERGING TAPER LENGTHS FOR CONE PATTERN
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NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.
TRAFFIC CONTROL
RECOMMENDATIONS

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☐ APPROVED WITH CONDITIONS BY: ___________________________ DATE:

START TRAFFIC CONTROL SET UP DATE: ___________ OFF PEAK 9:00 AM WEEKDAYS
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EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME:
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## 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

Start traffic control set up date & time:

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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- Offset cones 1 foot maximum.

**Notes:**

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.

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.

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.
PART III

FEDERAL WAGE RATES
Superseded General Decision Number: WA20210072

State: Washington

Construction Type: Heavy
including water and sewer line construction

County: Pierce County in Washington.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

<table>
<thead>
<tr>
<th>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</th>
<th>. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</td>
<td>. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.</td>
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The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at https://www.dol.gov/agencies/whd/government-contracts.

Modification Number 0
Publication Date 01/07/2022
ASBE0007-001 06/01/2021

Rates Fringes

ASBESTOS WORKER/HEAT & FROST
INSULATOR (Pipe and Duct Insulation)..............................$ 61.87 17.96

CARP0030-014 06/01/2020

Rates Fringes

Carpenter (Including Formwork).... $46.92 18.02
Millwright............................ $48.42 18.02
Piledriverman....................... $47.17 18.02

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - ALL CLASSIFICATIONS EXCEPT MILLRIGHT AND PILERIVER)

Hourly Zone Pay shall be paid on jobs located outside of the free zone computed from the city center of the following listed cities:

Seattle  Olympia  Bellingham
Auburn  Bremerton  Anacortes
Renton  Shelton  Yakima
Aberdeen-Hoquiam  Tacoma  Wenatchee
Ellensburg  Everett  Port Angeles
Centralia  Mount Vernon  Sunnyside
Chelan  Pt. Townsend

Zone Pay:
0 - 25 radius miles  Free
26 - 35 radius miles  $1.00/hour
36 - 45 radius miles  $1.15/hour
46 - 55 radius miles  $1.35/hour
Over 55 radius miles  $1.55/hour

(HOURLY ZONE PAY: WESTERN AND CENTRAL WASHINGTON - MILLRIGHT AND PILERIVER ONLY)

Hourly Zone Pay shall be computed from Seattle Union Hall, Tacoma City center, and Everett City center

Zone Pay:
0 - 25 radius miles  Free
26-45 radius miles  $.70/hour
Over 45 radius miles  $1.50/hour

ELEC0076-005 08/31/2021

Rates Fringes

Electrician..............................$ 51.77 24.23

ELEC0077-001 02/01/2021

Rates Fringes

Line Construction:
Linemen...............................$ 55.43 21.06+1.5%
ENGI0612-020 06/01/2020

Rates Fringes

POWER EQUIPMENT OPERATOR
GROUP 1A.................$ 49.50  22.47
GROUP 1AA................$ 50.22  22.47
GROUP 1AAA..............$ 50.94  22.47
GROUP 1...................$ 48.77  22.47
GROUP 2...................$ 48.15  22.47
GROUP 3...................$ 47.60  22.47
GROUP 4...................$ 44.55  22.47

Zone Differential (Add to Zone 1 rates):
Zone 2 (26-45 radius miles) = $1.00
Zone 3 (Over 45 radius miles) - $1.30

BASEPOINTS: CENTRALIA, OLYMPIA, TACOMA

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1AAA - Cranes-over 300 tons, or 300 ft of boom
(including jib with attachments)

GROUP 1AA - Cranes 200 to 300 tons, or 250 ft of boom
(including jib with attachments); Tower crane over 175 ft in
height, base to boom; Excavator/Trackhoe: Over 90 metric
tons

GROUP 1A - Cranes, 100 tons thru 199 tons, or 150 ft of boom
(including jib with attachments); Crane-overhead, bridge
type, 100 tons and over; Tower crane up to 175 ft in height
base to boom; Loaders-overhead, 8 yards and over;
excavator/Trackhoe: over 50 metric tons to 90 metric tons;
Backhoe- 6 yards and over with attachments

GROUP 1 - Cranes 45 tons thru 99 tons, under 150 ft of boom
(including jib with attachments); Crane-overhead, bridge
type, 45 thru 99 tons; Derricks on building work;
Excavator/Trackhoe: over 30 metric tons to 50 metric tons;
Loader- overhead 6 yards to, but not including 8 yards;
Dozer D-10; Screedman; Scrapers: 45 yards and over;
Grader/Blade

GROUP 2 - Cranes, 20 tons thru 44 tons with
attachments; Crane-overhead, bridge type-20 tons through 44
tons; Drilling machine; Excavator/Trackhoe: 15 to 30 metric
tons; Horizontal/directional drill operator;
Loaders-overhead under 6 yards; Crane Oilier-100 Tons and
Over; Scraper: under 45 tons; Backhoe- 3 yards and under;
Mechanic; Piledriver; Boring Machine

GROUP 3 - Cranes-thru 19 tons with attachments; A-frame crane
over 10 tons; Dozers-D-9 and under; Motor patrol
grader-nonfinishing; Roller-Plant Mix; Crane Oilier under
100 tons; Excavator/Trackhoe: under 15 metric tons; Service
Oilier; Conveyors; Backhoe 75 hp and under; Forklift-3,000
lbs. and over with attachments; Boom Truck over 10 tons

GROUP 4 - Cranes-A frame-10 tons and under; Roller-other than
plant mix; Rigger/Bellman; Grade Checker; Drill Assistant;
Forklift-under3,000 lbs. with attachments: Boom Truck 10
tons and under
### Rates Fringes

**IRONWORKER (Reinforcing, Structural and Ornamental)**

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**LAB00252-011 06/10/2021**

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**Laborers:**

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<td>5</td>
<td>$42.98</td>
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**ZONE DIFFERENTIAL (ADD TO ZONE 1 RATES):**

- **ZONE 2** - $1.00
- **ZONE 3** - $1.30

**BASE POINTS:** BELLINGHAM, MT. VERNON, EVERETT, SEATTLE, KENT, TACOMA, OLYMPIA, CENTRALIA, ABERDEEN, SHELTON, PT. TOWNSEND, PT. ANGELES, AND BREMERTON

**ZONE 1** - Projects within 25 radius miles of the respective city hall
**ZONE 2** - More than 25 but less than 45 radius miles from the respective city hall
**ZONE 3** - More than 45 radius miles from the respective city hall

**LABORERS CLASSIFICATIONS**

**GROUP 2:** Flagman

**GROUP 3:** General Laborer; Form Stripping; Sign Erector/Installer

**GROUP 4:** Pipe Layer; Handheld Drill; Jackhammer

**GROUP 5:** Mason Tender-Brick; Mason Tender-Cement/Concrete; High Scaler; Grade Checker

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**PAY0005-008 07/01/2020**

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<thead>
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<th>Fringes</th>
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**PAINTER (Brush, Roller and Spray)**

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**PLAS0528-004 06/01/2021**

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**CEMENT MASON/CONCRETE FINISHER**

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**PLUM0026-003 01/01/2022**

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**Plumbers and Pipefitters**

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<td>$52.72</td>
<td>27.25</td>
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Truck drivers:

ZONE A:
  GROUP 1: .....................$ 40.38      20.46
  GROUP 2: .....................$ 39.54      20.46

ZONE B (25-45 miles from center of listed cities*): Add $.70 per hour to Zone A rates.
ZONE C (over 45 miles from center of listed cities*): Add $1.00 per hour to Zone A rates.

*Zone pay will be calculated from the city center of the following listed cities:

BELLINGHAM      CENTRALIA      RAYMOND      OLYMPIA
EVERETT         SHELTON        ANACORTES     BELLEVUE
SEATTLE         PORT ANGELES    MT. VERNON    KENT
TACOMA          PORT TOWNSEND   ABERDEEN      BREMERTON

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Dump Trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with 16 yards to 30 yards capacity; Over 30 yards $.15 per hour additional for each 10 yard increment.; Water Truck-3,000 gallons and over; Semi-Trailer Truck

GROUP 2 - Dump trucks, side, end and bottom dump, including semi-trucks and trains or combinations thereof with less than 16 yards capacity; Water Truck- less than 3,000 gallons

HAZMAT PROJECTS

Anyone working on a HAZMAT job, where HAZMAT certification is required, shall be compensated as a premium, in addition to the classification working in as follows:
LEVEL C: +$.25 per hour - This level uses an air purifying respirator or additional protective clothing.
LEVEL B: +$.50 per hour - Uses same respirator protection as Level A. Supplied air line is provided in conjunction with a chemical "splash suit."
LEVEL A: +$.75 per hour - This level utilizes a fully-encapsulated suit with a self-contained breathing apparatus or a supplied air line.

---------------------------------------------------------------------------------

* SUWA2009-063 08/07/2009

rates Fringes

LABORER: Landscape &
Irrigation.....................$ 11.44 **      1.80

OPERATOR: Asphalt Plant........$ 34.14      0.68

OPERATOR: Bobcat/Skid
Steer/Skid Loader.............$ 10.63 **      0.00

OPERATOR: Broom/Sweeper........$ 30.39      3.77

OPERATOR: Power Shovel........$ 25.12      7.83
TRUCK DRIVER: Flatbed Truck.....$ 22.74 6.29
TRUCK DRIVER: Lowboy Truck......$ 22.89 5.72

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($15.00) or 13658 ($11.25). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the
most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.
With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party’s position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION
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.