



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**PROJECT MANUAL**

INVITATION FOR BIDS IFB 2334 TCP

SITE: Everett Smelter CSID No. 4298

PROJECT: Everett Smelter Uplands Residential 2020 Cleanup Group

LOCATION: Everett, Snohomish County, Washington

VIRTUAL AND IN PERSON BID OPENING TIME: **3:00 P.M.** (local time in Lacey, WA)

VIRTUAL AND IN PERSON BID OPENING DATE: **Thursday, March 16, 2023**

ECOLOGY DIRECTOR:	Laura Watson
ECOLOGY PROGRAM:	Toxics Cleanup Program
CONTRACTS OFFICER:	Erika Lindsey, P.E.
PROJECT MANAGER:	Sandra Matthews
DATE:	February 2023

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SECTION 00 01 05 – CERTIFICATIONS PAGE**

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**SECTION 00 01 05  
CERTIFICATIONS PAGE**

The registrant identified below certifies that they prepared or under their direct supervision prepared the specifications and content in these documents noted below in accordance with the rules and regulations governing engineering practice in the State of Washington (WAC 196-23-020, [4]).

Division 01: General Requirements

Sections:

- 01 10 00 Summary
- 01 11 13 Work Covered by Contract Documents
- 01 33 00 Submittal Procedures
- 01 35 04 Cultural Resource Procedures
- 01 35 29.13 Health, Safety, and Emergency Response Procedures for Contaminated Sites
- 01 41 00 Regulatory Requirements
- 01 50 00 Temporary Facilities and Controls
- 01 56 26 Temporary Fencing
- 01 56 39 Temporary Tree and Plant Protection
- 01 57 13 Temporary Erosion and Sediment Control
- 01 58 13 Temporary Project Signage
- 01 71 23 Field Engineering

Other sections of Division 01 not of an engineering nature that are not listed above have been reviewed and edited by the registrant to be in general conformance with project objectives and engineering sections.

Divisions:

- 02 Existing Conditions
- 03 Concrete
- 31 Earthwork
- 32 Exterior Improvements



**END OF SECTION 00 01 05**

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**END OF SECTION 00 01 10**

**SECTION 00 11 16  
INVITATION FOR BIDS**



**DEPARTMENT OF  
ECOLOGY**  
State of Washington

**Invitation for Bids Number: IFB 2334 TCP**

**Project Title:** Everett Smelter Uplands Residential 2020 Cleanup Group

**ALERT:** In an effort to keep our contractors and staff healthy, the Department of Ecology (Ecology) is making changes to the Public Works bid processes for pre-bid walk-through, bid submittal, and bid opening.

Ecology will be accepting mailed-in or hand-delivered bids. Ecology will accept hand delivered bids only on the day of bid opening following the directions below. Electronic bids (esubmission) will NOT be accepted. Bidders should allow sufficient time to ensure timely receipt of their bid.

**BID SUBMITTAL TIME/DATE/LOCATION:** SEALED BIDS will be accepted for **IFB 2334 TCP** the State of Washington Department of Ecology (Ecology) until **3:00 p.m. (local time in Lacey, WA), Thursday, March 16, 2023**

Clearly identify it is a “SEALED BID” on the outside of the envelope and identify the Project Title and IFB number to ensure that the bid is routed correctly.

- A. Mailed-in Bid Proposals must be received by Ecology prior to 3:00 p.m. (local time in Lacey, WA), Thursday, March 16, 2023.**

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<b>Mailed-in proposals shall be addressed as follows:</b>	
<b>U.S. Postal Service Regular Mail</b>	<b>UPS, FEDEX</b>
<b>Attn: Erika Lindsey, P.E.</b> Department of Ecology Toxics Cleanup Program PO BOX 47600 Olympia, Washington 98504-7600	Department of Ecology Toxics Cleanup Program <b>Attn: Erika Lindsey, P.E.</b> 300 Desmond Drive SE Lacey, Washington 98503

**B. Hand delivered submittals will only be accepted at Ecology’s Headquarters** between the hours of **9:00 a.m. (local time in Lacey, WA)** and prior to **3:00 p.m. (local time in Lacey, WA)** **only on Thursday, March 16, 2023.** Ecology Staff will retrieve bid proposals at bid closing to ensure proper time stamp.

<b>Hand delivered bids shall be addressed as follows:</b>
Department of Ecology Toxics Cleanup Program Attn: Erika Lindsey, P.E. 300 Desmond Drive SE Lacey, Washington 98503

**SUBCONTRACTOR LISTING SUBMITTAL(S):** The subcontractor listing requirements are described below in Notice to Bidders, Item F., and if applicable include two submittals as follows:

Form A, (HVAC, Plumbing, Electrical): **Within one hour after** bid submittal time/date, submit Form A by email to: [tcphqpcontracts@ECY.WA.GOV](mailto:tcphqpcontracts@ECY.WA.GOV).

Form B (Structural Steel Install, Rebar Install): **Within 48 hours of** bid submittal time, submit Form B by email to: [tcphqpcontracts@ECY.WA.GOV](mailto:tcphqpcontracts@ECY.WA.GOV).

Form A and B are located in the Project Manual (Section 00 41 00 Bid Form), which can be downloaded at the link presented in BID DOCUMENTS/PROJECT MANUAL section found below in this IFB.



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**VIRTUAL AND IN PERSON PUBLIC BID OPENING.** All Ecology Public Works Bid Openings will be conducted in person and via a live stream through Zoom. A link to the live stream for bid opening is provided below. If you have questions, please contact us using Ecology's Point of Contact information provided at the end of this invitation.

**When:** 3:00 p.m. (local time in Lacey, WA), Thursday, March 16, 2023

**Join Zoom Meeting:** <https://waecy-wa-gov.zoom.us/j/89625801613?pwd=RIZHOEthQUItU2JQaGNdUjZrTEdtZz09>

**Zoom Meeting ID:** 896 2580 1613

**Passcode:** 227771

**One Tap Mobile:** +12532158782,,89625801613#,,,,\*227771# US (Tacoma)  
+12532050468,,89625801613#,,,,\*227771# US

**Find your Local Number:** <https://waecy-wa-gov.zoom.us/j/89625801613?pwd=RIZHOEthQUItU2JQaGNdUjZrTEdtZz09>

**PROJECT SCOPE/SUMMARY OF WORK:**

This project remediates soils contaminated with arsenic from operations of the former Asarco Smelter, at thirty-eight (38) single-family residential properties in north Everett, Snohomish County, Washington, shown in the Contract Drawings. All work is outdoors. Work at each property typically includes implementing temporary construction controls for environmental protections, selective demolition or temporary removal of site features, excavating soils contaminated with arsenic; disposing of excavated soils at an approved landfill; importing clean fill material; backfilling with imported material, compacting, and grading; restoring properties to preconstruction conditions; and landscape and lawn restoration and maintenance, all in accordance with the requirements of the Project Manual. See **Section 01 10 00 – Summary** for a more extensive description of the work.

**ESTIMATED BID RANGE:** \$3,500,000 to \$4,300,000.

**PRE-BID MEETING:** A voluntary pre-bid meeting will occur through Zoom.

**When:** 2:00 PM Thursday, February 23, 2023

**Join Zoom Meeting:** <https://waecy-wa-gov.zoom.us/j/82767870350?pwd=YmM3MTZteWJNNINFS0xNNzVpWWV4dz09>

**Zoom Meeting ID:** 827 6787 0350

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**Passcode:** 939557

**One Tap Mobile:** +12532050468,,82767870350#,,,,\*939557# US

+12532158782,,82767870350#,,,,\*939557# US (Tacoma)

**Find your Local Number:** <https://waecy-wa-gov.zoom.us/j/939557>

Note: Please contact Sandra Matthews at (425) 223-1999 (smat461@ecy.wa.gov) at least five working days prior to the scheduled pre-bid date if special accommodations are required for your attendance.

Questions asked at the pre-bid meeting and the list of pre-bid meeting attendees will be posted on the Department of Ecology's Box.com page:

**NOTICE TO BIDDERS:**

A. **PRE-BID SITE ACCESS:** The sites are residential properties with occupied single-family homes and Prospective Bidders will only have access to the sites from the rights-of-way.

B. **GENERAL:** Upon contract award, the construction and successful completion of this project as defined in the Project Manual shall be the responsibility of the awarded Contractor, which is registered in the State of Washington.

This responsibility extends to work accomplished by subcontractors, vendors, and material and equipment suppliers through agreements with the Contractor. The Contractor shall assure that all personnel performing work in connection with this contract are familiar with the Project Manual including applicable procedures (including payment procedures), instructions, and technical requirements of this contract to ensure that construction proceeds to Final Completion and Final Acceptance in an orderly manner.

All work shall be done in accordance with the best modern construction practices and under the supervision of capable superintendents, foremen, and workmen fully experienced in their field of work.

C. **SCHEDULE:** The schedule for the Project is as follows:

The number of calendar days to achieve Substantial Completion = **230**

The number of calendar days to achieve Final Completion = **60**

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The number of days the Project shall achieve Substantial Completion are calendar days from the date of the Notice to Proceed. The number of calendar days to achieve Final Completion are from the date of Substantial Completion.

- D. **VOLUNTARY MWBE AND VETERAN OWNED BUSINESS PARTICIPATION GOALS:** Voluntary participation goals of 10% MBE, 6% WBE, 5% Washington Small Business and 5% Veteran Owned Business have been established for this project. Achievement of these goals is encouraged. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the contract documents, no preferences will be included in the evaluation of bids, and no minimum level of participation shall be required as a condition for receiving an award or completion of the contract work, and bids will not be rejected or considered non-responsive on that basis. Bidders may contact the Office of Minority and Women's Business Enterprise to obtain information on certified MWBE firms and the Washington Department of Veteran's Affairs for information on certified Veteran owned businesses.

Bidders may contact the Office of Minority and Women's Business Enterprise (OMWBE) at <http://OMWBE.wa.gov/> to obtain information on certified firms. Bidders may also utilize Washington Small Businesses registered in WEBS at <https://pr-webs-vendor.des.wa.gov/> and Veteran-owned Businesses at <https://www.dva.wa.gov/veterans-their-families/veteran-owned-businesses/vob-search>.

- E. **APPRENTICESHIP UTILIZATION REQUIREMENTS:** The apprenticeship utilization requirement for this project is a percent of the total labor hours.

The Mandatory Apprenticeship Utilization Requirement is **15%**

RCW 39.04.320 requires 15% Apprenticeship Participation for all projects estimated to cost one million dollars or more. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530, by phone (360) 902-5320, and e-mail at [apprentice@lni.wa.gov](mailto:apprentice@lni.wa.gov), to obtain information on available apprenticeship programs.

- F. **SUBCONTRACTOR LISTS FOR THIS PROJECT:** In accordance with RCW 39.30.060, if the base bid and the sum of the additive alternates is one million dollars or more, the Bidder is required to provide the names of the Subcontractors with whom the Bidder will directly subcontract for the performance of heating, ventilation and air conditioning (HVAC), plumbing and electrical for this project on Subcontractor List Form A within one hour of the bid submittal time via email to [tcphqpcontracts@ECY.WA.GOV](mailto:tcphqpcontracts@ECY.WA.GOV). The Bidder shall also provide names of the Subcontractors with whom the Bidder will subcontract for structural steel installation

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and rebar installation on Subcontractor List Form B within 48 hours of the bid submittal time via email to [tcpqpwcontracts@ecy.wa.gov](mailto:tcpqpwcontracts@ecy.wa.gov). Form A and B are located in the Project Manual as an attachment to Section 00 41 00 Bid Proposal Form.

**Note:** The requirement for submitting both Form A and Form B applies regardless if there is NO performance of heating, ventilation and air conditioning (HVAC), plumbing and electrical (Form A Work): NOR any structural steel installation and rebar installation (Form B work) on this project. In such cases, where there is no Form A Work and no Form B work on the project, the Bidder shall indicate “**not applicable**” as appropriate on the forms. Ecology reserves the right not to VOID bids in cases were Form A Work and Form B Work are not part of the project, and when a Bidder failed to submit Form A and Form B within the time frames identified above.

- G. BIDDER RESPONSIBILITY CRITERIA WILL BE EVALUATED FOR THIS PROJECT: See **Division 00 Section 00 21 13 - “Instructions to Bidders”** and **Section 00 22 13 – “Supplemental Bidder Responsibility”** for the mandatory and supplemental bidder responsibility criteria for this project.
- H. Ecology reserves the right to accept or reject any or all bid proposals and to waive as informality any minor irregularities of any bid received.

**BID DOCUMENTS/PROJECT MANUAL:**

- A. Bidders can access bid documents including the Project Manual as fully useable electronic documents thru the Department of Ecology’s Box.com page. The Project Manual includes bid specifications, appendices, plans, and addenda. Download all files in the folder: <https://app.box.com/s/5yums0zn266jp9bhldf7ykq0iju8inq8>
- B. In the event it becomes necessary to revise any part of the Project Manual, amendments will be placed as addenda on the Department of Enterprise Service’s [Washington's Electronic Business \(WEBS\) Solution, WEBS for Vendors](#) website.

**ECOLOGY’S POINT(S) OF CONTACT**

- A. Project Technical Questions or Comments: Direct all questions to the Ecology project team by email. The email should include all members of the Ecology Project team. These members are listed in the following table.

Team Member	Email
Erika Lindsey, P.E. TCP Contracts Officer	<a href="mailto:erli461@ecy.wa.gov">erli461@ecy.wa.gov</a>

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Sandra Matthews Project Manager Northwest Regional Office	<a href="mailto:smat461@ecy.wa.gov">smat461@ecy.wa.gov</a>
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- B. Bidding Questions for Ecology’s Contract Officer: Bidders with bidding questions and/or experiencing trouble accessing the TCP Public Share site can contact Erika Lindsey, P.E., TCP Contracts Officer, at (360) 280-5697 or by email at [erli461@ecy.wa.gov](mailto:erli461@ecy.wa.gov) for assistance.

**END OF SECTION 00 11 16**

**SECTION 00 21 13**

**INSTRUCTIONS TO BIDDERS**

**1.01 BIDDERS - GENERAL**

- A. **“Bidder”** is an entity or person who submits a bid proposal for the work stipulated in the contract documents.

The Bidder must be registered by the Washington State Department of Labor and Industries in accordance with RCW 18.27.020. Insert the contractor registration number, expiration date, Uniform Business Identifier (UBI) number, and federal tax identification number on the Bid Proposal Form in the applicable spaces.

- B. **“Employee”** means an individual who is employed in the business of his employer whether by way of manual labor or otherwise.
- C. **“Physical Office”** is the space that a bidder owns or rents in conducting the business of the services required for completing the work described in these documents. The “physical office” is staffed by employees of the bidder. The “physical office” is accessible to the general public, and dedicated solely to conducting the business of the services provided by the bidder

**1.02 EXPLANATION TO PROSPECTIVE BIDDERS**

- A. In accordance with [RCW 39.04.380 effective March 30, 2012](#), the State of Washington is enforcing a **Reciprocal Preference for Resident Contractors**. Any public works bid received from a nonresident contractor from a state that provides an in- state percentage bidding preference, a comparable percentage disadvantage must be applied to the bid of that nonresident contractor.

A nonresident contractor from a state that provides a percentage bid preference means a contractor that:

1. Is from a state that provides a percentage bid preference to its resident contractors bidding on public works contracts.
2. At the time of bidding on a public works project, does not have a physical office located in Washington.

The state of residence for a nonresident contractor is the state in which the contractor was incorporated or, if not a corporation, the state where the contractor's business entity was formed.

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All nonresident contractors will be evaluated for out of state Bidder preference. If the state of the nonresident contractor provides an in-state contractor preference, a comparable percentage disadvantage will be applied to their bid prior to contract award.

This section does not apply to public works procured pursuant to [RCW 39.04.155](#), [39.04.280](#), or any other procurement exempt from competitive bidding.

- B. Any prospective Bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must submit a request in writing to Ecology no later than seven (7) calendar days before the bid due date. The Invitation for Bids (Section 00 11 00) contains the contact information for Ecology. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective Bidder concerning a solicitation will be furnished promptly to all other prospective Bidders by addendum to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective Bidders.
- C. In accordance with the legislative findings and policies set forth in [RCW 39.19](#) the State of Washington encourages participation in all of its contracts by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this invitation or as a subcontractor to a Bidder. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the contract documents, no preference will be included in the evaluation of bids, no minimum level of MWBE participation shall be required as a condition for receiving an award, and bids will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the contract documents will apply.
- D. The State of Washington encourages participation in all of its contracts by Veteran-owned businesses (defined in RCW 43.60A.010) and located at INSTRUCTIONS TO BIDDERS Page 2 of 11 Effective August 1, 2022 <http://www.dva.wa.gov/program/certified-veteran-and-servicemember-owned-businesses> and Small, Mini and Micro businesses (defined in RCW 39.26.010) which have registered in WEBS at <https://pr-webs-vendor.des.wa.gov/> 1. In order to report payment detail, the Contractor must create an account in the DES Public Works Diversity Tracking & Management System powered by B2GNow or verify if an account has already been created on behalf of the Contractor: <https://des.diversitycompliance.com>. The DES Public Works Diversity Tracking & Management System is designed to streamline and automate compliance reporting requirements, empowering vendors to maintain



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accurate contact information and submit contract payment details online.

Note: This paragraph not used.

1. Every month for the duration of the contract, and while the contract is active in the Ecology fiscal system, submit and accurately maintain the following payment information with the A-19 payment application:
    - (a) Payments received by the prime contractor from the Agency
    - (b) Payments paid to each first tier subcontractor
    - (c) Payments paid to each first tier supplier
  2. The Contractor must also ensure the following information is reported to Ecology by first tier subcontractors and suppliers for the duration of the contract:
    - (a) Confirmation of payments from the prime contractor to the subcontractor
    - (b) Payment reporting to each supplier
- E. In accordance with [RCW 39.04.320](#), for all public works estimated to cost one million dollars or more, the State of Washington requires no less than **15% of the labor hours be performed by apprentices**. A contractor or subcontractor may not be required to exceed the 15% requirement. On applicable projects, the bid advertisement and Bid Proposal Form shall establish a minimum required percentage of apprentice labor hours compared to the total labor hours.
1. **Incentives** - The Contractor who meets or exceeds this utilization requirement on eligible contracts, will be awarded a monetary incentive described in the Apprentice Utilization Requirements section of the Bid Form.
  2. **Penalties** - The Contractor who fails to meet the utilization requirement and fails to demonstrate a Good Faith Effort, as outlined below, is subject to penalties described in the Apprentice Utilization Requirements section of the contract Bid Form. Contractor will receive an invoice payable to Ecology within 30 days.
  3. **Cost Value** - The expected cost value associated with meeting the goal is included in the Base Bid as described on the Bid Form.
  4. **Utilization Plan** - The Contractor shall provide an **Apprentice Utilization Plan** (Plan) demonstrating how and when they intend to achieve the Apprenticeship Utilization Requirement. The Plan shall have enough information to track the Contractor's progress in meeting



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the utilization requirement. The Contractor shall submit the Plan on the Apprentice Utilization Plan template (provided by the Ecology TCP Contracts Officer) **within 30 days of Notice to Proceed of the contract and prior to submitting the first invoice**. A sample of the Plan template is included as an attachment to this section. The Contractor shall provide an updated Plan during the course of construction when there are significant changes to the Plan, which may affect their ability to meet the requirement.

- (a) The Plan shall be uploaded to the Department of Labor & Industries' (L&I) Prevailing Wage Intents and Affidavit (PWIA) system on L&I's website (Contractor Portal).
- (b) The Plan is not submitted for approval.
- (c) It is expected that the Contractor will actively seek out opportunities to meet the Apprentice Utilization Requirement during construction even if the Plan indicates a shortfall in meeting the requirement.
- (d) If the Plan indicates that the Contractor will not attain the Apprentice Utilization Requirement, then Contractor must submit "Good Faith Effort" (GFE) documentation with their Plan to L&I's PWIA system.

#### **5. Good Faith Effort (GFE)**

- (a) Good Faith Effort (GFE) documentation shall describe in detail why the Contractor is not or was not able to attain the Apprentice Utilization Requirement.
  - (i) Contractors may submit Good Faith Effort (GFE) documentation at any time during the construction.
  - (ii) All GFE documentation must be submitted no later than 30 days before substantial completion.
- (b) Good Faith Effort (GFE) documentation must be in signed letter format uploaded to the PWIA system and include:
  - (i) The contract number, title and the apprentice utilization requirements,
  - (ii) The amount of apprentice labor hours the contract can or did attain along with the percentage of labor hours,
  - (iii) Contractors may receive a GFE credit for graduated Apprentice hours through the end of the calendar year for all projects worked on as long as the Apprentice remains

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continuously employed with the same Contractor they were working for when they graduated. If an Apprentice graduates during employment on a project of significant duration, they may be counted towards a GFE credit for up to one year after their graduation or until the end of the project (whichever comes first). Determination of whether or not Contract requirements were met in good faith will be made by subtracting the hours from the journeyman total reported hours for the project and adding them to the apprentice hour total. If the new utilization percentage meets the Contract requirement, the Contractor will be reported as meeting the requirement in good faith,

(iv) Anticipated or actual shortfall (in apprentice labor hours and percentage) and the reason(s) for not attaining the required apprentice labor hours,

(v) Information from one or more of the following areas:

- Names of any State-Approved Apprentice Training Programs contacted with the name(s) of person(s) contacted and dates of contacts, and a copy of each response from the Training Program(s),
- Reference Contract Specifications or documents that affected the Contractor's ability to attain apprentice utilization,
- Discuss efforts the Contractor has taken to require Subcontractors to solicit and employ apprentices,

(vi) Backup documentation to the letter consisting of the following:

Letters, emails, phone logs including names dates and outcomes, posters, photos, payrolls, time cards, schedules, copies or references to other contract specifications or documents.

#### **6. Additional Resource Information**

- (a) For questions regarding how to complete the Apprentice Utilization Plan template or Good Faith Effort documentation, please contact the Ecology TCP Contracts Officer listed in the Bid Advertisement.
- (b) Step-by-step instructions on how to access and navigate the L&I's PWIA system, including uploading required documents can be found on the L&I website.

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- (c) Additional information about apprentice utilization on Public Works Project can be found on the L&I website.

#### **1.03 PREPARATION OF BIDS – CONSTRUCTION**

- A. Bids must be: (1) submitted on the Bid Forms, or copies of forms, furnished by Ecology or Ecology’s agent, and (2) signed in ink. The person signing a bid must initial each change appearing on any Bid Forms. If the bid is made by a corporation, it shall be signed by the corporation’s authorized designee. The address of the Bidder shall be typed or printed on the Bid Forms in the space provided.
- B. The Bid Forms may require Bidders to submit bid prices for one or more items on various bases, including: (1) lump sum base bid; (2) lump sum bid alternate prices; (3) unit prices; or (4) any combination of items 1 through 3 above.
- C. If the solicitation includes alternate bid items, failure to bid on the alternates may disqualify the bid. If bidding on all items is not required, Bidders should insert the words “no bid” in the space provided for any item on which no price is submitted.
- D. Substitute bid forms will not be considered unless this solicitation authorizes their submission.

#### **1.04 BID GUARANTEE**

- A. When the sum of the base bid plus all additive bid alternates is \$35,000.00 or less, bid security is not required.
- B. When the sum of the base bid plus all additive alternates is greater than \$35,000.00, a bid guarantee in the amount of 5% of the base bid amount is required. Failure of the Bidder to provide bid guarantee when required shall render the bid non-responsive.
- C. Acceptable forms of bid guarantee are: A bid bond or postal money order, or certified check or cashier’s check made payable to the Washington State Treasurer.
- D. Ecology will return bid guarantees (other than bid bond) to unsuccessful Bidders as soon as practicable, but not sooner than the execution of a contract with the successful Bidder. The successful Bidder’s bid guarantee will be returned to the successful Bidder with its official notice to proceed with the work of the contract.
- E. The Bidder will allow 60 days from bid opening date for acceptance of its bid by Ecology.
- F. The Bidder will return to Ecology a signed contract, insurance certificate and bond

## **DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

### **SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS**

or bond waiver within 15 days after receipt of the contract. If the apparent successful Bidder fails to sign all contractual documents or provide the bond and insurance as required or return the documents within 15 days after receipt of the contract, Ecology may terminate the award of the contract.

- G. In the event a Bidder discovers an error in its bid following the bid opening, the Bidder may request to withdraw its bid under the following conditions:
1. Written notification is received by Ecology within 24 hours following bid opening.
  2. The Bidder provides written documentation of the claimed error to the satisfaction of Ecology within 72 hours following the bid opening.
  3. Ecology will approve or disapprove the request for withdrawal of the bid in writing. If the Bidder's request for withdrawal of its bid is approved, the Bidder will be released from further obligation to Ecology without penalty. If it is disapproved, Ecology may retain the Bidder's bid guarantee.

#### **1.05 ADDITIVE OR DEDUCTIVE BID ITEMS**

The low Bidder, for purposes of award, shall be the responsive Bidder offering the low aggregate amount for the base bid item, plus additive or deductive bid alternates selected by Ecology, and within funds available for the project. The Bidder agrees to hold all bid alternate prices for sixty (60) days from date of bid opening.

#### **1.06 ACKNOWLEDGEMENT OF ADDENDA**

Bidders shall acknowledge receipt of all addenda to this solicitation by identifying the addenda numbers in the space provided for this purpose on the Bid Form. Failure to do so may result in the bid being declared non-responsive.

#### **1.07 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK**

The Bidder acknowledges that it has taken steps necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to; (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and road; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during the work. The Bidder also acknowledges that it has satisfied itself as to character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including exploratory work done by Ecology, as well as from the drawings and specifications

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made a part of this contract. Any failure of the Bidder to take the actions described and acknowledged in this paragraph will not relieve the Bidder from responsibility for estimating properly the difficulty and cost of successfully performing the work.

#### **1.08 BID AMOUNTS**

- A. The bid prices shown for each item on the Bid Form shall include all labor, material, equipment, overhead and compensation to complete all of the work for that item.
- B. The actual cost of building permit (only) and the public utility hookup fees will be a direct reimbursement to the Contractor or paid directly to the permitting agency by Ecology. Fees for these permits should not be included by the Bidder in the bid amount.
- C. The Bidder agrees to hold the base bid prices for sixty (60) days from date of bid opening.

#### **1.09 TAXES**

The bid amounts shall not include Washington State Sales Tax (WSST). All other taxes imposed by law shall be included in the bid amount. Ecology will include WSST in progress payments. The Contractor shall pay the WSST to the Department of Revenue and shall furnish proof of payment to Ecology if requested.

**NOTE: Contractor must bond for contract amount plus the WSST.**

#### **1.10 SUBMISSION OF BIDS**

- A. Bids must be submitted on or before the time specified in the Invitation for Bids.
- B. The Bid Form shall be submitted in a sealed envelope addressed to the office specified in the Invitation for Bids. The envelope shall have printed on the outside:
  - 1. The Invitation for Bid number and project title.
  - 2. The name and address of the Bidder.
  - 3. Identification as Bid Proposal.
- C. Prior to the bid opening, Ecology's representative will designate the official bid clock. Any part of the Bid Form, or in the rare situation of a bid modification, not received prior to the times specified, per the designated bid clock, will not be considered and the bid will be returned to the Bidder unopened.
- D. A bid may be withdrawn in person by a Bidder's authorized representative before the opening of the bids. Bidder(s) representative will be required to show ID and sign on bid summary sheet before it will be released.

## **DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

### **SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS**

- E. People with disabilities who wish to request special accommodation, (e.g., sign language interpreters, braille, etc.) need to contact Ecology’s project manager ten (10) working days prior to the scheduled bid opening.

#### **1.11 SUBCONTRACTOR LISTING**

Pursuant to [RCW 39.30.060](#), if the base bid and the sum of the additive alternates is one million dollars or more, the Bidder shall comply with the following requirements:

1. WITHIN ONE HOUR OF BID SUBMITTAL TIME: The Bidder shall provide names of the Subcontractors with whom the Bidder will subcontract for performance of heating, ventilation and air conditioning (HVAC), plumbing, and electrical on Subcontractor List Form A via email.
2. WITHIN 48 HOURS OF BID SUBMITTAL TIME: The Bidder shall also provide names of the Subcontractors with whom the Bidder will subcontract for structural steel installation and rebar installation on Subcontractor List Form B via email.
3. The Bidder can name itself for the performance of the work. Bidders who name themselves to perform the work are expected to perform the work and the Ecology reserves the right to reject substitution of the bidder with a subcontractor unless the bidder demonstrates a change in circumstances from the time of bid submission that is outside of the control of the bidder.
4. Substitution of a listed subcontractor (at any tier) before or after the award of the prime contract is prohibited except for the following reasons:
  - (a) Refusal of the listed subcontractor to sign a contract with the prime contractor;
  - (b) Bankruptcy or insolvency of the listed subcontractor;
  - (c) Inability of the listed subcontractor to perform the requirements of the proposed contract or the project;
  - (d) Inability of the listed subcontractor to obtain the necessary license, bonding, insurance, or other statutory requirements to perform the work detailed in the contract;
  - (e) Refusal or inability to provide a letter of bondability from a surety company; or
  - (f) The listed subcontractor is barred from participating in the project as a result of a court order

## **DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

### **SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS**

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5. The Bidder shall not list more than one Subcontractor for each category of work identified UNLESS Subcontractors vary with bid alternates, in which case the Bidder must indicate which Subcontractor will be used for which alternate.
6. Ecology reserves the right not to VOID bids in cases where Form A Work and Form B Work are not part of the project, and when a Bidder failed to submit Form A and Form B within the time frames identified above.
7. The Subcontractor List Form A is intended to discourage bid shopping, not to verify subcontractor qualifications. Ecology does not use the Subcontractor List Form A as a tool to disqualify or qualify bidders.

#### **1.12 BID RESULTS**

After the Bid Opening, Bidders may obtain bid results from Ecology by calling (360) 407-7210 or by accessing the [Ecology Toxics Cleanup Program \(TCP\) public share site](#), where results will be posted as a file named with the information specific to this Invitation for Bid.

- A. **Withdrawal for Reasons Other Than Errors:** In the event a bidder requests or notifies Ecology of their intent to withdraw a bid for reasons other than an error, Ecology will call in the bid guarantee. In the event that a request does not include a reason for the withdrawal, the request will be considered a reason other than an error.

#### **1.13 BID PROTESTS**

- A. Bidders may submit a bid protest to Ecology at [tcphqpwcontracts@ECY.WA.GOV](mailto:tcphqpwcontracts@ECY.WA.GOV) within two business days of the Bid Opening. Ecology will provide copies of bids received if they are requested within two business days after the Bid Opening.
  1. Ecology will not acknowledge or accept any bid protest received more than two business days after the Bid Opening date.
  2. Ecology will not accept bid protests from non-bidders.
- B. Ecology will review any bid protest received and shall maintain sole discretion on the merits of and resolution of any bid protest.
- C. Ecology will provide written notice to protesting bidders of an intent to enter a Public Works Contract with anyone other than the protesting bidder as follows:

## **DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

### **SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS**

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1. Not less than 2 business days following the Bid Opening, if no bidders requests copies of bids received, or
2. Not less than 2 business days following the date on which Ecology provided copies of the bids received to those bidders requesting copies of bids received.

#### **1.14 LOW RESPONSIBLE BIDDER**

- A. **Mandatory Responsibility Criteria:** Before award of a public works contract, a Bidder must meet the following mandatory responsibility criteria under [RCW 39.04.350 \(1\) & \(2\)](#) to be considered a responsible Bidder and qualified to be awarded a public works project. The Bidder must:
1. At the time of bid submittal, have a certificate of registration in compliance with [RCW 18.27](#);
  2. Have a current state unified business identifier number;
  3. If applicable, have industrial insurance coverage for the Bidder's employees working in Washington as required in [RCW 51](#); an employment security department number as required in [RCW 50](#); and a state excise tax registration number as required in [RCW 82](#);
  4. Not be disqualified from bidding on any public works contract under [RCW 39.06.010](#) or [39.12.065\(3\)](#);
  5. If bidding on a public works project subject to the apprenticeship utilization requirements in RCW 39.04.320, not have been found out of compliance by the Washington State Apprenticeship and Training Council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under RCW 49.04 for the one-year period immediately preceding the date of the bid solicitation;
  6. Public Works and Prevailing Wage Training/Exemption. Bidders shall have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW. The bidder 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. The department, in consultation with the prevailing wage advisory committee, must determine the length of the training. 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. The Department of Labor & Industries must keep records of entities that have satisfied the



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training requirement or are exempt and make the records available on its website. Responsible parties may rely on the records made available by the department regarding satisfaction of the training requirement or exemption. Labor & Industries Contractor Training, New Training Requirement for Businesses; and

7. Within the three year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgement entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of RCW 49.46, 49.48, or 49.52. A bidder shall submit a signed Contractor Certification form with the bid or within two (2) business days of request by Ecology regarding this wage theft prevention responsible bidder criteria.

**B. Supplemental Responsibility Criteria:** In addition to the mandatory Bidder responsibility criteria, Ecology may adopt relevant supplemental criteria for determining Bidder responsibility applicable to a particular project that the Bidder must meet ([RCW 39.04.350 \(3\)](#)).

1. If applicable, Ecology shall consider an overall accounting of the attached supplemental criteria for determining Bidder responsibility found in DIVISION 00, SECTION 00 22 13 - SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA.
2. At least seven (7) days prior to the bid submittal deadline, a potential Bidder may request that Ecology modify the supplemental responsibility criteria. Ecology will evaluate the information submitted by the potential Bidder and respond before the bid submittal deadline. If the evaluation results in a change of the criteria, Ecology will issue an addendum to the bidding documents identifying the new criteria.
3. Upon Ecology's request, the apparent low Bidder must supply the requested responsibility information within two (2) business days of request by Ecology. Withholding information or failure to submit all the information requested within the time provided may render the bid non-responsible.
4. If Ecology determines that the apparent low Bidder is not responsible:
  - (a) Ecology will notify the Bidder of its preliminary determination in writing.
  - (b) Within three (3) business days after receipt of the preliminary determination, the Bidder may withdraw its bid, or the Bidder may appeal the preliminary determination and present additional information to Ecology.
  - (c) Ecology will review the additional information within two (2) weeks of the date of the receipt of the Bidder's request.
  - (d) Ecology will issue a Final Determination after reviewing the additional

## DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

### SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

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information.

- (e) If Ecology determines a Bidder to be not responsible, Ecology will provide, in writing, the reasons for the determination. If the final determination affirms that the Bidder is not responsible, Ecology will not execute a contract with any other Bidder until two (2) business days after the Bidder determined to be not responsible has received the final determination.
- (f) Ecology's Final Determination is specific to this project and will have no effect on other or future projects.

#### 1.15 BID EVALUATION AND CONTRACT AWARD

- A. Ecology will evaluate bids for responsiveness and responsibility.
  - 1. A bid will be considered responsive if it meets the following requirements:
    - (a) It is received at the proper time and place.
    - (b) It meets the stated requirements of the Bid Form, is complete, and is signed by an authorized representative of the Bidder.
    - (c) It is submitted by a licensed/registered contractor within the state of Washington at the time of bid opening and is not banned from bidding by the Department of Labor and Industries.
    - (d) It includes signed acknowledgements of any bid addenda issued during bidding.
    - (e) It is accompanied by a bid guarantee, if required.
    - (f) It is accompanied by the contractor certification for wage theft prevention and, when required, certifications for a federally assisted project as provided in the bid proposal form.
  - 2. A bid will be considered responsible if it meets the following requirements:
    - (a) It meets the mandatory responsibility criteria established in [RCW 39.04.350](#) and an overall accounting of the supplemental responsibility criteria established for the project.
    - (b) The bidder completes, signs, and submits the "Contractor Certification Wage Theft Prevention – Responsible Bidder Criteria" form **with their bid** or within two (2) business days of request by Ecology
- B. Ecology reserves the right to accept or reject any or all bid proposals and to waive as informality any minor irregularities of any bid received.

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- C. If inconsistencies or errors are noted in the bid proposal prices, prices shown in words shall have precedence over prices shown in figures. The unit and lump sum prices shall have precedence over their total amounts; and the total amounts shall have precedence over the total bid.
- D. Ecology may negotiate bid price adjustments with the low responsive Bidder, including changes in the contract documents, to bring the bid within the available funding per RCW 39.04.015.
- E. The apparent low Bidder, for purpose of award, shall be the responsive and responsible Bidder offering the low aggregate amount for the base bid plus selected additive or deductive bid alternates, and meeting all other bid submittal requirements.
- F. **Reciprocal Preference for Resident Contractors.** For a public works bid received from a nonresident contractor from a state that provides an in- state percentage bidding preference, a Comparable Percentage Disadvantage (CPD) will be applied to the bid of that nonresident contractor. The CPD is the in-state contractor percent advantage provided by the contractor’s home state.

For the purpose of determining the successful Bidder, multiply the Nonresident Contractor bid amount by the CPD. The “bid amount” shall be the total of the base bid and all accepted alternate bid items. The CPD shall be added to the Nonresident Contractor bid amount which equates to the Nonresident Disadvantage Total. The Nonresident Disadvantage Total shall be compared to the Washington contractor bid amounts. The Bidder with the lowest total shall be the successful Bidder. See example below.

EXAMPLE:

Alaska Nonresident Contractor Bid Amount	\$100,000
<u>Multiplied by the Alaska CPD</u>	<u>x 0.05</u>
Alaska CPD Total	\$ 5,000
Alaska Nonresident Contractor Bid Amount	\$100,000
<u>Alaska CPD Total</u>	<u>+ \$5,000</u>
Nonresident Disadvantage Total	\$105,000*

\* Notes – If the Nonresident Disadvantage Total is lower than all other Washington contractor bid amounts, the Alaska Nonresident Contractor is the successful Bidder and will be awarded a contract for the bid amount of \$100,000.

If the Nonresident Disadvantage Total is higher than a Washington contractor bid amount, the successful Washington Bidder will be awarded a contract for the bid amount.

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS**

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- G. The apparent successful bidder will return to the owner a signed contract, insurance certificate and bond or bond waiver within 15 business days after receipt of the contract. If the apparent successful bidder fails to sign all contractual documents or provide the bond and insurance as required or return
- H. the documents within 15 business days after receipt of the contract, Ecology may terminate the award of the contract.
- I. The Contract will only become effective when signed by Ecology. Prior to Ecology’s signature, any and all costs incurred shall be the sole responsibility of the Bidder.

**1.16 DIVISION 00 REFERENCE DOCUMENTS**

- A. Invitation for Bid and/or Advertisement for Bid
- B. Bid Proposal Form, including the “Contractor Certification Wage Theft Prevention – Responsible Bidder Criteria” form
- C. Subcontractor Listing Forms A & B
- D. Supplemental Bidder Responsibility Criteria (if applicable)
- E. Washington State Prevailing Wage Rates

**Note: American Institute of Architects (AIA) Payment Bond and Performance Bond forms (A312) are required when applicable. These forms will not be provided by Ecology.**

**END OF SECTION 00 21 13**



**SECTION 00 22 13**

**SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA**

In addition to the mandatory bidder responsibility criteria, Ecology has adopted the following supplemental criteria for bidder responsibility for this project which the bidder must meet (RCW 39.04.350 (3)).

- A. Bidder shall have been the general contractor for a public agency public works contract in Washington on at least three projects within the last FIVE (5) years. The projects must be of a similar scope of work that included remediation of contaminated soils, and at least one of the three projects must have a contract award value of at least \$250,000.
  - 1. An “on call contract” with the State of Washington or any other public agency to provide environmental cleanup or other services is not considered a public works contract and is not a qualifying project that meets this supplemental criterion.
- B. In addition to the requirements listed in A., Bidder shall provide a list of all Washington public agency public works contracts it has performed in the last FIVE (5) years with a contract award value over \$35,000.
- C. Documentation of this project experience shall be provided by the Apparent Low Bidder **within 2 working days of the date of request from Ecology**, and shall include the following information to identify experience that meets or exceeds the supplemental criteria in A. above:
  - 1. Name of Project
  - 2. Contract Award Value
  - 3. Contracting Agency/Public Owner
  - 4. Point of Contact/Reference Name
  - 5. Point of Contact/Reference Phone Number
  - 6. Project Scope of Work
  - 7. Work self-performed on this project
  - 8. Work subcontracted on this project
  - 9. Minority and Women’s Business Enterprise and Veteran Owned Business participation goals established for the project and the level of participation utilized, as a percent of contract amount, on the project.
  - 10. Apprenticeship utilization requirements, as a percent of total labor hours, identified for the project and actual apprenticeship participation percentage of

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 22 13 – SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA**

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total labor hours used on this project. Bidder shall specifically note those projects where it did not meet the apprenticeship utilization requirements and the reasons why.

- D. Bidders who failed to meet the established apprenticeship participation requirements where they were part of the contract will be determined to be non-responsible and their bid will not be accepted unless there is a documented reason from the contracting agency that this requirement was modified.
- E. In addition to the information requested above, Bidder shall provide a general plan that describes how it intends to meet the apprenticeship utilization requirements established for this project and which Bidder will be required to meet if awarded the contract for this project.
- F. If the Bidder fails to provide the requested information within the time allowed, Ecology may consider that Bidder non responsible and reject its bid on that basis.
- G. Ecology may check all references provided by the Bidder in determining if the Bidder meets the supplemental responsibility criteria.
- H. Ecology may check references for one or more previous projects and/or contact one or more of Ecology representatives indicated in the Bidder's previous project information, who can provide an assessment of the Bidder's performance on that past project.
  - 1. Ecology may evaluate an assessment provided by the previous project's owner based on, but not limited to, the following:
    - (a) Quality control.
    - (b) Safety record.
    - (c) Timeliness of performance.
    - (d) Use of skilled personnel.
    - (e) Management of Subcontractors.
    - (f) Availability of and use of appropriate equipment.
    - (g) Compliance with contract documents.
    - (h) Management of submittals process and change orders.
  - 2. Ecology may determine a Bidder is not a responsible Bidder if reference checks or assessments identify one or more of the following:
    - (a) The Bidder and/or the submitted projects do not meet the supplemental Bidder responsibility criteria to the satisfaction of Ecology.
    - (b) Concerns about the Bidder's performance on past projects identified as meeting the supplemental Bidder responsibility criteria, which may

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 22 13 – SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA**

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include, but not be limited to, any element of the assessment of that Bidder's performance including quality of construction, Bidder's management of Subcontractors, timeliness of required submittals, and/or Bidder's safety record on the project.

- (c) Concerns about the Bidder's ability to successfully perform the Work of this Project based upon the information obtained by Ecology.
3. Ecology may include itself as a reference for one or more past projects the Bidder has performed for Ecology that meet the minimum project criteria specified in this section, even if the Bidder does not identify Ecology as a past project. Ecology may provide an assessment for review as part of the bid for this Project.
- (a) The Bidder shall assume Ecology will review Bidder performance on past Everett Smelter projects of similar size and scope to this Project, even if the Bidder does not submit the Everett Smelter project as a past project.
- I. In addition to the information requested above, Bidder shall provide a plan that describes how it intends to meet the apprenticeship utilization requirements established for this bid and which Bidder will be required to meet if awarded the contract for this project.
  - J. If the Bidder fails to provide the requested information within the time allowed, Ecology may consider that Bidder non responsible and reject its bid on that basis.

**END OF SECTION 00 22 13**





SECTION 00 41 00 – BID FORMS  
 Invitation for Bid Number: IFB 2334 TCP  
 Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group  
 Virtual and In Person Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023  
 Name of Contractor: \_\_\_\_\_

**SECTION 00 41 00  
 BID FORMS**

State of Washington, Department of Ecology  
**BID PROPOSAL (Submit to Ecology as listed below)**

**Invitation for Bids Number: IFB 2334 TCP**

**Project Title:** Everett Smelter Uplands Residential 2020 Cleanup Group

**ALERT:** In an effort to keep our contractors and staff healthy, the Department of Ecology is making changes to the Public Works bid submittal and bid-opening process.

Ecology will be accepting mailed-in or hand-delivered bids. However, Ecology will accept hand-delivered bids only on the day of bid opening following the directions below. Electronic bids (e-submission) will NOT be accepted. Bidders should allow sufficient time to ensure timely receipt of their bid.

**BID SUBMITTAL TIME / DATE / LOCATION:** SEALED BIDS will be accepted for **IFB 2334 TCP** “Everett Smelter Uplands Residential 2020 Cleanup Group ” by the State of Washington Department of Ecology (Ecology) until **3:00 p.m. (local time in Lacey, WA), MARCH 16, 2023.**

Clearly identify it is a “SEALED BID” on the outside of the envelope, and identify the Project Title and IFB number, and include an attention line in the address to ensure the bid is routed correctly.

**A. Mailed-in Bid Proposals must be received by Ecology until 3:00 p.m. (local time in Lacey, WA), MARCH 16, 2023.**

Mailed-in proposals shall be addressed as follows:		
U.S. Postal Service Regular Mail		UPS, FEDEX
<b>Attn: Erika Lindsey, PE</b> Department of Ecology Toxics Cleanup Program PO BOX 47600 Olympia, Washington 98504-7600		Department of Ecology Toxics Cleanup Program <b>Attn: Erika Lindsey, PE</b> 300 Desmond Drive SE Lacey, Washington 98503



SECTION 00 41 00 – BID FORMS

Invitation for Bid Number: IFB 2334 TCP

Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group

Virtual Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023

Name of Contractor: \_\_\_\_\_

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**B. Hand-delivered sealed submittals will only be accepted at Ecology's Headquarters between the hours of 9:00 a.m. (local time in Lacey, WA) and prior to 3:00 p.m. (local time in Lacey, WA) only on Thursday, March 16, 2023.** Ecology Staff will retrieve sealed bid proposals at bid closing to ensure proper time stamp.

Hand-delivered bids shall be addressed as follows:
Department of Ecology Toxics Cleanup Program Attn: <b>Erika Lindsey, PE</b> 300 Desmond Drive SE Lacey, Washington 98503

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*Bids not received by the specified Bid Opening date and time will not be accepted and will be returned unopened to the bidder.*



SECTION 00 41 00 – BID FORMS

Invitation for Bid Number: IFB 2334 TCP

Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group

Virtual Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023

Name of Contractor: \_\_\_\_\_

**Bid Proposal:** Having carefully examined the site of the proposed work, and having carefully considered all conditions affecting the work, the undersigned proposes to furnish all labor, materials, equipment, etc., necessary and incidental, and to perform all work as required by and in accordance with the Project Manual, for the amount shown:

1) TOTAL BASE BID (including Trench Excavation Safety Provisions) ( <b>Not</b> including Washington State Sales Tax)	
\$ _____ (Total Base Bid price in numbers only)	
_____ <b>U.S. Dollars</b> (Total Base Bid price written out in words)	
TRENCH EXCAVATION SAFETY PROVISIONS	\$ _____ (Included in Total Base Bid above)
If the bid amount contains any work which requires trenching exceeding a depth of four feet, all costs for trench safety shall be <b>included</b> in the Total Base Bid <b>and indicated above</b> for adequate trench safety systems in compliance with Chapter 39.04 RCW, 49.17 RCW and WAC 296-155-650. Bidder must include a lump sum dollar amount in blank above (even if the value is \$0.00) to be responsive.	

**Evaluation of Bids:** The evaluation of bids and determination of the lowest responsive Bidder will be based on the Total Base Bid price (including Trench Excavation Safety Provisions). Ecology reserves the right to accept or reject any or all bid prices within **sixty (60)** calendar days of the bid date. Ecology reserves the right to accept or reject any or all bid proposals and to waive as informality any minor irregularities of any bid received.

**TIME FOR COMPLETION**

**Contract Time** - The undersigned hereby agrees to Substantially Complete all the work under the Base Bid (and accepted Alternates) within **180** calendar days after the date of the Notice to Proceed.

**Final Completion** – All the Work shall be fully and finally completed in accordance with the contract documents within **30** calendar days after the date of Substantial Completion.

**SUBCONTRACTOR LISTING REQUIREMENTS**

If the base bid and the sum of the additive alternates is **one million dollars or more**, the undersigned agrees to submit Subcontractor Listing Form A (HVAC, Plumbing, Electrical) within one hour of bid submittal time and Subcontractor Listing Form B (Structural Steel Install, Rebar Install) within 48 hours of the bid submittal time, as applicable to the work, according to RCW 39.30.060 and the Instructions to Bidders.



SECTION 00 41 00 – BID FORMS

Invitation for Bid Number: IFB 2334 TCP

Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group

Virtual Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023

Name of Contractor: \_\_\_\_\_

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**Note:** The requirement for submitting both Form A and Form B applies regardless if there is NO performance of heating, ventilation and air conditioning (HVAC), plumbing and electrical (Form A Work); NOR any structural steel installation and rebar installation (Form B Work) on this project. In such cases, where there is no Form A Work and no Form B Work on the project, the Bidder shall indicate “**not applicable**” as appropriate on the forms. Ecology reserves the right not to VOID bids in cases where Form A Work and Form B Work are not part of the project, and when a Bidder failed to submit Form A and Form B within the time frames identified above.

**APPRENTICESHIP UTILIZATION REQUIREMENTS:** The apprentice labor hours required for this project are **15%** of the total labor hours. By submitting this bid, the undersigned agrees to utilize this level of apprenticeship utilization. The undersigned agrees to utilize this level of apprentice participation.

Incentive: A monetary incentive of \$1,000 will be paid to the contractor meeting the apprentice utilization requirement. A monetary penalty will be applied to the contractor failing to meet the utilization requirement and failing to demonstrate a Good Faith Effort. Penalty: The penalty will be applied to every hour of short-fall of the minimum number of required apprentice hours using the applicable published wage of a Step 1 apprentice laborer. The penalty will not exceed five percent (5%) of the total Contract Sum. The cost value associated with meeting the apprentice utilization requirement is included in the Base Bid.

**FEDERAL AND STATE REQUIREMENTS:** The undersigned agrees to perform the requirements set out and incorporated by reference in attached **DIVISION 00, Section 00 73 05 Supplemental Federal Conditions for Owner Public Works Projects Funded with Federal Assistance** section in the specifications, if applicable.

**LIQUIDATED DAMAGES**

The undersigned agrees to pay Ecology as liquidated damages the sum of **\$2,000** for each consecutive calendar day that is in default after the Contract Time. Liquidated damages shall be deducted from the contract invoice after taxes and retainage.

**BID GUARANTEE**

Bidder shall furnish a Bid Guarantee per **Section 00 21 13 Instructions to Bidders**. Failure of the bidder to provide bid guarantee will render the Bidder’s bid non-responsive.



SECTION 00 41 00 – BID FORMS

Invitation for Bid Number: IFB 2334 TCP

Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group

Virtual Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023

Name of Contractor: \_\_\_\_\_

**RECEIPT OF ADDENDA**

Bidder shall acknowledge any addenda issued to this Invitation for Bid by submitting a signed copy of the addenda with the bid proposal. Failure to do so will render the Bidder's bid non-responsive.

**BIDDER INFORMATION  
(BIDDER BE SURE TO SIGN YOUR BID PROPOSAL)**

Name of Firm \_\_\_\_\_

NOTE: *If bidder is a corporation, identify State of Incorporation; if a partnership, give full names and addresses of all parties below, or on attached page submitted with this bid proposal.*

State of Incorporation: \_\_\_\_\_

**Bid Proposal Signed by** \_\_\_\_\_

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

**Official Capacity** \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Date \_\_\_\_\_ Telephone \_\_\_\_\_ FAX \_\_\_\_\_

Washington Contractor's Registration Number/Expiration Date \_\_\_\_\_

Federal Tax ID Number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Washington UBI Number: \_\_\_\_\_





SECTION 00 41 00 – BID FORMS

Invitation for Bid Number: IFB 2334 TCP

Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group

Virtual Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023

Name of Contractor: \_\_\_\_\_

**Subcontractor List Form A**  
**For HVAC, Plumbing, and Electrical**

*Within One Hour of the Bid Submittal Time*

*Email FORM A as an attachment to: [tcphqpcontracts@ECY.WA.GOV](mailto:tcphqpcontracts@ECY.WA.GOV)*

*Subject line on email shall include: Project (IFB) No., Project Name, Contractor Name, Form A*

In compliance with the contract documents, the following subcontractor list is submitted:

**SUBCONTRACTING LISTING -- [RCW 39.30.060](#)**

If the base bid and the sum of the additive alternates is **one million dollars or more**, the Bidder shall provide names of the subcontractors with whom the Bidder will **directly** subcontract for performance of the following work. If the Bidder intends to perform the work, the Bidder must enter its name for that category of work.

**The Bidder shall not list more than one subcontractor for each category of work identified UNLESS subcontractors vary with bid alternates, in which case the Bidder must indicate which subcontractor will be used for which alternate. Substitutions are prohibited except as outlined in RCW 39.30.060.**

**Bidders who name themselves to perform the work are expected to perform the work and the Department of Ecology reserves the right to reject substitution of the bidder with a subcontractor unless the bidder demonstrates a change in circumstances from the time of bid submission that is outside of the control of the bidder.**

Category of Work	Alternate Bid # (if applicable)	Firm Name If there is no Work under these categories on this Project, the Bidder is to write the words <b>“None”</b> or <b>“Not applicable”</b> in the table below.
1. HVAC, Base Bid	n/a	
a. HVAC, Alternate Bid		
2. Plumbing, Base Bid	n/a	
a. Plumbing, Alternate Bid		
3. Electrical, Base Bid	n/a	
a. Electrical, Alternate Bid		

Bidder may attach a separate sheet for additional alternate bid subcontractors.

Submitted By: \_\_\_\_\_

Print Name and Title of Authorized Person

SECTION 00 41 00 – BID PROPOSAL FORM



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

Invitation for Bid Number: IFB 2XXX TCP  
Project Name: Everett Smelter Uplands Residential 2020 Cleanup Group  
Bid Opening Date/Time: 3:00 p.m. (local time in Lacey, WA), March 16, 2023

Name of Contractor: \_\_\_\_\_

**Subcontractor List Form B**

**For Structural Steel Installation and Rebar Installation**

*Within 48 Hours of Bid Submittal Time*

*Email FORM B as an attachment to: [tcphqpwcontracts@ECY.WA.GOV](mailto:tcphqpwcontracts@ECY.WA.GOV).*

*Subject line on email shall include: Project (IFB) No., Project Name, Contractor Name, Form B*

In compliance with the contract documents, the following subcontractor list is submitted:

**SUBCONTRACTING LISTING -- RCW 39.30.060**

If the base bid and the sum of the additive alternates is **one million dollars or more**, the Bidder shall provide names of the subcontractors with whom the Bidder will **directly** subcontract for performance of the following work. If the Bidder intends to perform the work, the Bidder must enter its name for that category of work.

The Bidder shall not list more than one subcontractor for each category of work identified UNLESS subcontractors vary with bid alternates, in which case the Bidder must indicate which subcontractor will be used for which alternate. Substitutions are prohibited except as outlined in RCW 39.30.060.

**Bidders who name themselves to perform the work are expected to perform the work and the Department of Ecology reserves the right to reject substitution of the bidder with a subcontractor unless the bidder demonstrates a change in circumstances from the time of bid submission that is outside of the control of the bidder.**

Category of Work	Alternate Bid # (if applicable)	Firm Name <small>If there is no Work under these categories on this Project, the Bidder is to write the words "None" or "Not applicable" in the table below.</small>
1. <u>Structural Steel Installation</u> , Base Bid	n/a	
a. <u>Structural Steel Installation</u> , Alternate Bid		
2. <u>Rebar Installation</u> , Base Bid	n/a	
a. <u>Rebar Installation</u> , Alternate Bid		

Bidder may attach a separate sheet for additional alternate bid subcontractors.

Submitted By: \_\_\_\_\_

Print Name and Title of Authorized Person

**END OF SECTION 00 41 00**



**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 43 43 - PREVAILING WAGES**

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**SECTION 00 43 43**  
**PREVAILING WAGES**

The State of Washington prevailing wage rates are applicable for this public works project, which is located in, Seattle, which is in King Counties, Washington

Prevailing wage rates may be looked up at the following website address of the Department of Labor and Industries:

[Washington State Department of Labor & Industries, Prevailing Wage Rates](https://lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/)

<https://lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/>

The prevailing wages for this project are those that are in effect on the date that the bids are due. Residential wage rates shall not be used on this project.

Upon request, Ecology will provide an electronic copy of the applicable state prevailing wages for this project. To request an electronic copy, contact the Contracts Officer, Erika Lindsey at [erli461@ecy.wa.gov](mailto:erli461@ecy.wa.gov).

**END OF SECTION 00 43 43**

**SECTION 00 72 00**

**GENERAL CONDITIONS**

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**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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**PART 1 - GENERAL CONDITIONS**

**1.01 DEFINITIONS**

“Application for Payment” means a written request submitted by Contractor to A/E for payment of Work completed in accordance with the Contract Documents and approved Schedule of Values, supported by such substantiating data as Ecology or A/E may require.

“Architect”, “Engineer”, or “A/E” means a person or entity lawfully entitled to practice architecture or engineering, representing Ecology within the limits of its delegated authority.

“Change Order” means a written instrument signed by “Ecology” and Contractor stating their agreement upon all of the following: (1) a change in the Work; (2) the amount of the adjustment in the Contract Sum, if any; and (3) the extent of the adjustment in the Contract Time, if any.

“Claim” means Contractor's exclusive remedy for resolving disputes with Ecology regarding the terms of a Change Order or a request for equitable adjustment, as more fully set forth in Part 8

“Contract Award Amount” is the sum of the Base Bid and any accepted Alternates.

“Contract Documents” means the Project Manual, the Invitation for Bids, Instructions for Bidders, completed Bid Form, General Conditions, Modifications to the General Conditions, Supplemental Conditions, Public Works Contract, other Special Forms, Drawings and Specifications, and all addenda and modifications thereof.

“Contract Sum” is the total amount payable by Ecology to Contractor for performance of the Work in accordance with the Contract Documents, including all taxes imposed by law and properly chargeable to the work, except Washington State sales tax.

“Contract Time” is the number of calendar days allotted in the Contract Documents for achieving Substantial Completion of the Work.

“Contractor” means the person or entity who has agreed with Ecology to perform the Work in accordance with the Contract Documents.

“Day(s)” unless otherwise specified day(s) shall mean calendar day(s).

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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“Drawings” are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, and may include plans, elevations, sections, details, schedules, and diagrams.

“Ecology” means the Washington State Department of Ecology (Ecology) or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.

“Final Acceptance” means the written acceptance issued to Contractor by Ecology after Contractor has completed the requirements of the Contract Documents, as more fully set forth in Section 6.09B.

“Final Completion” means that the Work is fully and finally completed in accordance with the Contract Documents, as more fully set forth in Section 6.09A.

“Force Majeure” means those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in paragraph 3.05A.

“Notice” means a written notice that has been delivered to the authorized representative or officer of the addressed party by registered or certified mail, or by email as a PDF attachment. Notices should clearly identify the project number and date of notice.

“Notice to Proceed” means a notice from Ecology to Contractor that defines the date on which the Contract Time begins to run.

“Ecology” means the state agency, institution, or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.

“Person” means a corporation, partnership, business association of any kind, trust, company, or individual.

“Prior Occupancy” means Ecology’s or property owner’s use of all or parts of the Project before Substantial Completion, as more fully set forth in Section 6.08A.

“Project or Progress Schedule” means a schedule of the Work, in a form satisfactory to Ecology, as further set forth in Section 3.02.

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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“Project” means the total construction of which the Work performed in accordance with the Contract Documents may be the whole or a part and which may include construction by Ecology or by separate contractors.

“Project Record” means the separate set of Drawings and Specifications as further set forth in paragraph 4.02A.

“Property Owner” means the owner of the property, other than Ecology, on which the work under the contract will occur.

“Schedule of Values” means a written breakdown allocating the total Contract Sum to each principal category of Work, in such detail as requested by Ecology.

“Specifications” are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, and workmanship for the Work, and performance of related services.

“Subcontract” means a contract entered into by Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind for, or in connection with, the Work.

“Subcontractor” means any person, other than the Contractor, who agrees to furnish or furnishes any supplies, materials, equipment, or services of any kind in connection with the Work.

“Substantial Completion” means that stage in the progress of the Work when the construction is sufficiently complete, as more fully set forth in Section 6.07.

“Work” means the construction and services required by the Contract Documents, and includes, but is not limited to, labor, materials, supplies, equipment, services, permits, and the manufacture and fabrication of components, performed, furnished, or provided in accordance with the Contract Documents.

**1.02 ORDER OF PRECEDENCE**

Any conflict or inconsistency in the Contract Documents shall be resolved by giving the documents precedence in the following order:

1. Signed Public Works Contract, including any Change Orders
2. Supplemental Conditions
3. Modifications to the General Conditions

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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4. General Conditions
5. Specifications: Provisions in Division 01 shall take precedence over provisions of any division.
6. Drawings. In case of conflict within the Drawings, large-scale drawings shall take precedence over small-scale drawings.
7. Signed and Completed Bid Form
8. Instructions to Bidders
9. Invitation for Bids

**1.03 EXECUTION AND INTENT**

Contractor Representations: Contractor makes the following representations to Ecology:

- A. Contract Sum reasonable: The Contract Sum is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work, as represented by the Contract Documents.
- B. Contractor familiar with project: Contractor has carefully reviewed the Contract Documents, visited and examined the Project site, become familiar with the local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of the Work, the labor, materials, equipment, goods, supplies, work, services, and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or affect performance of the Work or the cost or difficulty thereof.
- C. Contractor financially capable: Contractor is financially solvent, able to pay its debts as they mature, and possesses sufficient working capital to complete the Work and perform Contractor's obligations required by the Contract Documents; and
- D. Contractor can complete work: Contractor is able to furnish the plant, tools, materials, supplies, equipment, and labor required to complete the Work and perform the obligations required by the Contract Documents and has sufficient experience and competence to do so.



**PART 2 - INSURANCE AND BONDS**

**2.01 CONTRACTOR'S LIABILITY INSURANCE**

General insurance requirements: Prior to commencement of the Work, Contractor shall obtain all the insurance required by the Contract Documents and provide evidence satisfactory to Ecology that such insurance has been procured. Review of the Contractor's insurance by Ecology shall not relieve or decrease the liability of Contractor. Companies writing the insurance to be obtained by this part shall be licensed to do business under Chapter 48 RCW or comply with the Surplus Lines Law of the State of Washington. Contractor shall include in its bid the cost of all insurance and bond costs required to complete the base bid work and accepted alternates. Insurance carriers providing insurance in accordance with the Contract Documents shall be acceptable to Ecology, and its A.M. Best rating shall be indicated on the insurance certificates.

- A. Term of insurance coverage: Contractor shall maintain the following insurance coverage during the Work and for one year after Final Acceptance. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by Section 5.16.
  - 1. Commercial General Liability: (CGL) on an Occurrence Form. Coverage shall include, but not be limited to:
    - (a) Completed operations/products liability;
    - (b) Explosion, collapse, and underground; and
    - (c) Employer's liability coverage.
  - 2. Automobile Liability Insurance: Automotive liability.
- B. Industrial Insurance compliance: Contractor shall comply with the Washington State Industrial Insurance Act, and, if applicable, the Federal Longshoremen's and Harbor Workers' Act, and the Jones Act.
- C. Insurance to protect for the following: All insurance coverage's shall protect against claims for damages for personal and bodily injury or death, as well as claims for property damage, which may arise from operations in connection with the Work whether such operations are by Contractor or any Subcontractor.
- D. Ecology as Additional insured: All insurance coverages shall be endorsed to include Ecology as an additional named insured for Work performed in

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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accordance with the Contract Documents, and all insurance certificates shall evidence Ecology as an additional insured.

**2.02 COVERAGE LIMITS**

A. Insurance Coverage Certificates and Policies

The Contractor shall furnish acceptable proof of insurance coverage on the state of Washington Certificate of Insurance form SF500A, dated 07/02/92 or ACORD form, as well as copies of insurance policies.

B. Required Insurance Coverages

1. For a contract less than \$100,000.00, the coverage required is:

- (a) Comprehensive General Liability Insurance – The Contractor shall at all times during the term of this contract, at its cost and expense, carry and maintain general public liability insurance, including contractual liability, against claims for bodily injury, personal injury, death or property damage occurring or arising out of services provided under this contract. This insurance shall cover claims caused by any act, omission, or negligence of the Contractor or its officers, agents, representatives, assigns or servants. The limits of liability insurance, which may be increased as deemed necessary by the contracting parties, shall be:

Each Occurrence	\$1,000,000.00
General Aggregate Limits (other than products – commercial operations)	\$1,000,000.00
Products – Commercial Operations Limit	\$1,000,000.00
Personal and Advertising Injury Limit	\$1,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expense Limit (any one person)	\$5,000.00

- (b) If the contract is for underground utility work, then the Contractor shall provide proof of insurance for that above in the form of Explosion, Collapse and Underground (XCU) coverage.
- (c) Employers Liability on an occurrence basis in an amount not less than \$1,000,000.00 per occurrence.

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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2. For contracts over \$100,000.00 but less than \$5,000,000.00 the contractor shall obtain the coverage limits as listed for contracts below \$100,000.00 and General Aggregate and Products – Commercial Operations Limit of not less than \$2,000,000.00.
3. Coverage for Comprehensive General Bodily Injury Liability Insurance for a contract over \$5,000,000.00 is:

Each Occurrence	\$2,000,000.00
General Aggregate Limits (other than products – commercial operations)	\$4,000,000.00
Products – Commercial Operations limit	\$4,000,000.00
Personal and Advertising Injury Limit	\$2,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expense Limit (any one Person)	\$5,000.00

4. For all Contracts – Automobile Liability: in the event that services delivered pursuant to this contract involve the use of vehicles or the transportation of clients, automobile liability insurance shall be required. If Contractor-owned personal vehicles are used, a Business Automobile Policy covering at a minimum Code 2 “owned autos only” must be secured. If Contractor employee’s vehicles are used, the Contractor must also include under the Business Automobile Policy Code 9, coverage for non-owned autos. The minimum limits for automobile liability is: \$1,000,000 per Occurrence or Accident, using a combined single limit for bodily injury and property damage.
5. For Contracts for Hazardous Substance Removal (Asbestos Abatement, PCB Abatement, UST abandonment, soils/sediments/groundwater contamination remediation that includes PCB contamination remediation, petroleum contamination remediation, heavy metals contamination remediation, etc.)

- (a) In addition to providing insurance coverage for the project as outlined above, the Contractor shall provide Pollution Liability insurance for the hazardous substance removal as follows:

<u>EACH OCCURRENCE</u>	<u>AGGREGATE</u>
\$1,000,000	\$5,000,000

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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or \$2,000,000 each occurrence/aggregate bodily injury and property damage combined single limit.

- (i) Insurance certificate must state that the insurer is covering hazardous substance removal.
- (ii) Should this insurance be secured on a “claims made” basis, the coverage must be continuously maintained for one year following the project’s “final completion” through official completion of the project, plus one year following.

For Contracts where hazardous substance removal is a subcomponent of contracted work, the general contractor shall provide to Ecology a certificate of insurance for coverage as defined in 5a. above. The State of Washington, Department of Ecology must be listed as an additional insured. This certificate of insurance must be provided to Ecology prior to commencing work.

**2.03 INSURANCE COVERAGE CERTIFICATES**

- A. Certificate required: Prior to the commencement of Work, Contractor shall furnish to Ecology a completed Certificate of Insurance coverage.
- B. List Project info: All insurance certificates shall name Ecology’s Project number and Project title.
- C. Cancellation provisions: All insurance certificates shall specifically require 45 Days prior notice to Ecology of cancellation or any material change, except 30 Days for surplus line insurance.

**2.04 PAYMENT AND PERFORMANCE BONDS**

Conditions for bonds: Payment and performance bonds for 100% of the Contract Award Amount, plus state sales tax, shall be furnished for the Work, using the Payment Bond and Performance Bond form published by and available from the American Institute of Architects (AIA) – form A312. Prior to execution of a Change Order that, cumulatively with previous Change Orders, increases the Contract Award Amount by 15% or more, the Contractor shall provide either new payment and performance bonds for the revised Contract Sum, or riders to the existing payment and performance bonds increasing the amount of the bonds. The Contractor shall likewise provide additional bonds or riders when subsequent Change Orders increase the Contract Sum by 15% or more.

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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No payment or performance bond is required if the Contract Sum is \$150,000 or less and the Contractor or General Contractor/Construction Manager agrees that Ecology may, in lieu of the bond, retain 10% of the Contract Sum for the period allowed by RCW 39.08.010.

**2.05 ALTERNATIVE SURETY**

When alternative surety required: Contractor shall promptly furnish payment and performance bonds from an alternative surety as required to protect Ecology and persons supplying labor or materials required by the Contract Documents if:

- A. Ecology has a reasonable objection to the surety; or
- B. Any surety fails to furnish reports on its financial condition if requested by Ecology.

**2.06 BUILDER’S RISK (APPLIES ONLY TO ECOLOGY PROJECTS THAT INCLUDE PERMANENT OR TEMPORARY BUILDINGS)**

- A. Contractor to buy Property Insurance: Contractor shall purchase and maintain property insurance in the amount of the Contract Sum including all Change Orders for the Work on a replacement cost basis until Final Completion. For projects not involving New Building Construction, “Installation Floater” is an acceptable substitute for the Builder’s Risk Insurance. The insurance shall cover the interest of Ecology, Contractor, and any Subcontractors, as their interests may appear.
- B. Losses covered: Contractor property insurance shall be placed on an "all risk" basis and insure against the perils of fire and extended coverage and physical loss or damage including theft, vandalism, malicious mischief, collapse, false work, temporary buildings, debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for A/Es’ services and expenses required as a result of an insured loss.
- C. Waiver of subrogation rights: Ecology and Contractor waive all subrogation rights against each other, any Subcontractors, A/E, A/Es’ sub consultants, separate contractors described in Section 5.20, if any, and any of their subcontractors, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this section or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by Ecology as fiduciary. The policies shall

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
**SECTION 00 72 00 – GENERAL CONDITIONS**

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provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

**PART 3 - TIME AND SCHEDULE**

**3.01 PROGRESS AND COMPLETION**

Contractor to meet schedule: Contractor shall diligently prosecute the Work, with adequate forces, achieve Substantial Completion within the Contract Time, and achieve Final Completion within a reasonable period thereafter.

**3.02 CONSTRUCTION SCHEDULE**

- A. Preliminary Progress Schedule: Unless otherwise provided in Division 01, Contractor shall, within 14 Days after issuance of the Notice to Proceed, submit a preliminary Progress Schedule. The Progress Schedule shall show the sequence in which Contractor proposes to perform the Work, and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals, and for acquiring materials and equipment.
- B. Form of Progress Schedule: The Progress Schedule shall be in the form of a Critical Path Method (CPM) logic network or, with the approval of Ecology, a bar chart schedule may be submitted. The scheduling of construction is the responsibility of the Contractor and is included in the contract to assure adequate planning and execution of the work. The schedule will be used to evaluate progress of the work for payment based on the Schedule of Values. The schedule shall show the Contractor's planned order and interdependence of activities, and sequence of work. As a minimum the schedule shall include:
  - 1. Date of Notice to Proceed;
  - 2. Activities (resources, durations, individual responsible for activity, early starts, late starts, early finishes, late finishes, etc.);
  - 3. Utility Shutdowns;
  - 4. Interrelationships and dependence of activities;
  - 5. Planned vs. actual status for each activity;

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6. Substantial completion;
7. Punch list;
8. Final inspection;
9. Final completion, and
10. Float time

The Schedule Duration shall be based on the Contract Time of Completion listed on the Bid Form. Ecology shall not be obligated to accept any Early Completion Schedule suggested by the Contractor. The Contract Time for Completion shall establish the Schedule Completion Date.

If the Contractor feels that the work can be completed in less than the Specified Contract Time, then the Surplus Time shall be considered Project Float. This Float time shall be shown on the Project Schedule. It shall be available to accommodate changes in the work and unforeseen conditions.

Neither the Contractor nor Ecology have exclusive right to this Float Time. It belongs to the project.

- C. Ecology comments on Progress Schedule: Ecology shall return comments on the preliminary Progress Schedule to Contractor within 14 Days of receipt. Review by Ecology of Contractor's schedule does not constitute an approval or acceptance of Contractor's construction means, methods, or sequencing, or its ability to complete the Work within the Contract Time. Contractor shall revise and resubmit its schedule, as necessary. Ecology may withhold a portion of progress payments until a Progress Schedule has been submitted that meets the requirements of this section.
- D. Monthly updates and compliance with Progress Schedule: Contractor shall utilize and comply with the Progress Schedule. On a monthly basis, or as otherwise directed by Ecology, Contractor shall submit an updated Progress Schedule at its own expense to Ecology indicating actual progress. If, in the opinion of Ecology, Contractor is not in conformance with the Progress Schedule for reasons other than acts of Force Majeure as identified in Section 3.05, Contractor shall take such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Progress Schedule, and if directed by Ecology, Contractor shall submit a corrective action

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plan or revise the Progress Schedule to reconcile with the actual progress of the Work.

- E. Contractor to notify Ecology of delays: Contractor shall promptly notify Ecology in writing of any actual or anticipated event which is delaying or could delay achievement of any milestone or performance of any critical path activity of the Work. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the Progress Schedule, and the action being or to be taken to correct the problem. Provision of such notice does not relieve Contractor of its obligation to complete the Work within the Contract Time.

**3.03 ECOLOGY’S RIGHT TO SUSPEND THE WORK FOR CONVENIENCE**

- A. Ecology may suspend work: Ecology may, at its sole discretion, order Contractor, in writing, to suspend all or any part of the Work for up to 90 Days, or for such longer period as mutually agreed.
- B. Compliance with suspension; Ecology’s options: Upon receipt of a written notice suspending the Work, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of cost of performance directly attributable to such suspension. Within a period up to 90 Days after the notice is delivered to Contractor, or within any extension of that period to which the parties shall have agreed, Ecology shall either:
  - 1. Cancel the written notice suspending the Work; or
  - 2. Terminate the Work covered by the notice as provided in the termination provisions of Part 9.
- C. Resumption of Work: If a written notice suspending the Work is cancelled or the period of the notice or any extension thereof expires, Contractor shall resume Work.
- D. Equitable Adjustment for suspensions: Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract Sum, or both, for increases in the time or cost of performance directly attributable to such suspension, provided Contractor complies with all requirements set forth in Part 7 - CHANGES.

**3.04 ECOLOGY’S RIGHT TO STOP THE WORK FOR CAUSE**

- A. Ecology may stop Work for Contractor’s failure to perform: If Contractor fails or refuses to perform its obligations in accordance with the Contract Documents,



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Ecology may order Contractor, in writing, to stop the Work, or any portion thereof, until satisfactory corrective action has been taken.

- B. No Equitable Adjustment for Contractor's failure to perform: Contractor shall not be entitled to an equitable adjustment in the Contract Time or Contract Sum for any increased cost or time of performance attributable to Contractor's failure or refusal to perform or from any reasonable remedial action taken by Ecology based upon such failure.

**3.05 DELAY**

- A. Force Majeure actions not a default; Force Majeure defined: Any delay in or failure of performance by Ecology or Contractor, other than the payment of money, shall not constitute a default hereunder if and to the extent the cause for such delay or failure of performance was unforeseeable and beyond the control of the party ("Force Majeure"). Acts of Force Majeure include, but are not limited to:
1. Acts of God or the public enemy;
  2. Acts or omissions of any government entity;
  3. Fire or other casualty for which Contractor is not responsible;
  4. Quarantine or epidemic;
  5. Strike or defensive lockout;
  6. Unusually severe weather conditions which could not have been reasonably anticipated; and
  7. Unusual delay in receipt of supplies or products which were ordered and expedited and for which no substitute reasonably acceptable to Ecology was available.
- B. Contract Time adjustment for Force Majeure: Contractor shall be entitled to an equitable adjustment in the Contract Time for changes in the time of performance directly attributable to an act of Force Majeure, provided it makes a request for equitable adjustment according to Section 7.03. Contractor shall not be entitled to an adjustment in the Contract Sum resulting from an act of Force Majeure.
- C. Contract Time or Contract Sum adjustment if Ecology at fault: Contractor shall be entitled to an equitable adjustment in Contract Time, and may be entitled to an equitable adjustment in Contract Sum, if the cost or time of Contractor's

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performance is changed due to the fault or negligence of Ecology, provided the Contractor makes a request according to Section 7.02 and 7.03.

- D. No Contract Time or Contract Sum adjustment if Contractor at fault: Contractor shall not be entitled to an adjustment in Contract Time or in the Contract Sum for any delay or failure of performance to the extent such delay or failure was caused by Contractor or anyone for whose acts Contractor is responsible.
- E. Contract Time adjustment only for concurrent fault: To the extent any delay or failure of performance was concurrently caused by Ecology and Contractor, Contractor shall be entitled to an adjustment in the Contract Time for that portion of the delay or failure of performance that was concurrently caused, provided it makes a request for equitable adjustment according to Section 7.03, but shall not be entitled to an adjustment in Contract Sum.
- F. Contractor to mitigate delay impacts: Contractor shall make all reasonable efforts to prevent and mitigate the effects of any delay, whether occasioned by an act of Force Majeure or otherwise.

**3.06 NOTICE TO ECOLOGY OF LABOR DISPUTES**

- A. Contractor to notify Ecology of labor disputes: If Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay timely performance in accordance with the Contract Documents, Contractor shall immediately give notice, including all relevant information, to Ecology.
- B. Pass through notification provisions to Subcontractors: Contractor agrees to insert a provision in its Subcontracts and to require insertion in all sub-subcontracts, that in the event timely performance of any such contract is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor or Sub-subcontractor shall immediately notify the next higher tier Subcontractor or Contractor, as the case may be, of all relevant information concerning the dispute.

**3.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION**

- A. Liquidated Damages
  - 1. Reason for Liquidated Damages: Timely performance and completion of the Work is essential to Ecology and time limits stated in the Contract Documents are of the essence. Ecology will incur serious and substantial damages if Substantial Completion of the Work does not occur within the Contract Time. However, it would be difficult if not impossible to determine

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the exact amount of such damages. Consequently, provisions for liquidated damages are included in the Contract Documents.

2. Calculation of Liquidated Damages amount: The liquidated damage amounts set forth in the Contract Documents will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Ecology because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages Ecology would in such event sustain. This amount shall be construed as the actual amount of damages sustained by Ecology, and may be retained by Ecology and deducted from periodic payments to the Contractor.
3. Contractor responsible even if Liquidated Damages assessed: Assessment of liquidated damages shall not release Contractor from any further obligations or liabilities pursuant to the Contract Documents.

**B. Actual Damages**

Calculation of Actual Damages: Actual damages will be assessed for failure to achieve Final Completion within the time provided. Actual damages will be calculated on the basis of direct architectural, administrative, and other related costs attributable to the Project from the date when Final Completion should have been achieved, based on the date Substantial Completion is actually achieved, to the date Final Completion is actually achieved. Ecology may offset these costs against any payment due Contractor.

**PART 4 – SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS**

**4.01 DISCREPANCIES AND CONTRACT DOCUMENT REVIEW**

- A. Specifications and Drawings are basis of the Work: The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Drawings, Specifications, and other provisions of the Contract Documents.
- B. Parts of the Contract Documents are complementary: The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications

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and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.

- C. Contractor to report discrepancies in Contract Documents: Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Ecology. If during the performance of the Work Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly and before proceeding with the Work affected thereby, report such conflict, error, inconsistency, or omission to A/E in writing.
- D. Contractor knowledge of discrepancy in documents-responsibility: Contractor shall do no Work without applicable Drawings, Specifications, or written modifications, or Shop Drawings where required, unless instructed to do so in writing by Ecology. If Contractor performs any construction activity, and it knows or reasonably should have known that any of the Contract Documents contain a conflict, error, inconsistency, or omission, Contractor shall be responsible for the performance and shall bear the cost for its correction.
- E. Contractor to perform work implied by Contract Documents: Contractor shall provide any work or materials the provision of which is clearly implied and is within the scope of the Contract Documents even if the Contract Documents do not mention them specifically.
- F. Interpretation questions referred to A/E. Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.

**4.02 PROJECT RECORD**

- A. Contractor to maintain Project Record Drawings and Specifications: Contractor shall legibly mark in ink on a separate set of the Drawings and Specifications all actual construction including depths of foundations, horizontal and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes of dimensions and details, actual suppliers, manufacturers and trade names, models of installed equipment, and Change Order proposals. This separate set of Drawings and Specifications shall be the "Project Record."
- B. Update Project Record weekly and keep on site: The Project Record shall be maintained on the project site throughout the construction and shall be clearly labeled "PROJECT RECORD." The Project Record shall be updated at least weekly noting all changes and will be available to Ecology at all times.

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- C. Final Project Record to A/E before Final Acceptance: Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance.

**4.03 SHOP DRAWINGS**

- A. Definition of Shop Drawings: “Shop Drawings” means documents and other information required to be submitted to A/E by Contractor pursuant to the Contract Documents, showing in detail: the proposed fabrication and assembly of structural elements; and the installation (i.e., form, fit, and attachment details) of materials and equipment. Shop Drawings include, but are not limited to, drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, samples, and similar materials furnished by Contractor to explain in detail specific portions of the Work required by the Contract Documents. For materials and equipment to be incorporated into the Work, Contractor submittal shall include the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the item. When directed, Contractor shall submit all samples at its own expense. Ecology may duplicate, use, and disclose Shop Drawings provided in accordance with the Contract Documents.
- B. Approval of Shop Drawings by Contractor and A/E: Contractor shall coordinate all Shop Drawings and review them for accuracy, completeness, and compliance with the Contract Documents and shall indicate its approval thereon as evidence of such coordination and review. Where required by law, Shop Drawings shall be stamped by an appropriate professional licensed by the state of Washington. Shop Drawings submitted to A/E without evidence of Contractor's approval shall be returned for resubmission. Contractor shall review, approve, and submit Shop Drawings with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of Ecology or separate contractors. Contractor's submittal schedule shall allow a reasonable time for A/E review. A/E will review, approve, or take other appropriate action on the Shop Drawings. Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings until the respective submittal has been reviewed and the A/E has approved or taken other appropriate action. Ecology and A/E shall respond to Shop Drawing submittals with reasonable promptness. Any Work by Contractor shall be in accordance with reviewed Shop Drawings. Submittals made by Contractor which are not required by the Contract Documents may be returned without action.

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- C. Contractor not relieved of responsibility when Shop Drawings approved: Approval or other appropriate action with regard to Shop Drawings by Ecology or A/E shall not relieve Contractor of responsibility for any errors or omissions in such Shop Drawings, nor from responsibility for compliance with the requirements of the Contract Documents. Unless specified in the Contract Documents, review by Ecology or A/E shall not constitute an approval of the safety precautions employed by Contractor during construction, or constitute an approval of Contractor's means or methods of construction. If Contractor fails to obtain approval before installation, and the item or work is subsequently rejected, Contractor shall be responsible for all costs of correction.
- D. Variations between Shop Drawings and Contract Documents: If Shop Drawings show variations from the requirements of the Contract Documents, Contractor shall describe such variations in writing, separate from the Shop Drawings, at the time it submits the Shop Drawings containing such variations. If A/E approves any such variation, an appropriate Change Order will be issued. If the variation is minor and does not involve an adjustment in the Contract Sum or Contract Time, a Change Order need not be issued; however, the modification shall be recorded upon the Project Record.
- E. Contractor to submit 5 copies of Shop Drawings: Unless otherwise provided in DIVISION 01, Contractor shall submit to A/E for approval 5 copies of all Shop Drawings. Unless otherwise indicated, 3 sets of all Shop Drawings shall be retained by A/E, and 2 sets shall be returned to Contractor.

**4.04 ORGANIZATION OF SPECIFICATIONS**

Specification organization by trade: Specifications are prepared in sections which conform generally with trade practices. These sections are for Ecology and Contractor convenience and shall not control Contractor in dividing the Work among the Subcontractors or in establishing the extent of the Work to be performed by any trade.

**4.05 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS**

- A. A/E, not Contractor, owns Copyright of Drawings and Specifications: The Drawings, Specifications, and other documents prepared by A/E are instruments of A/E's service through which the Work to be executed by Contractor is described. Neither Contractor nor any Subcontractor shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by A/E, and A/E shall be deemed the author of them and will, along

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with any rights of Ecology, retain all common law, statutory, and other reserved rights, in addition to the copyright. All copies of these documents, except Contractor's set, shall be returned or suitably accounted for to A/E, on request, upon completion of the Work.

- B. Drawings and Specifications to be used only for this Project: The Drawings, Specifications, and other documents prepared by the A/E, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Ecology and A/E. Contractor and Subcontractors are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications, and other documents prepared by A/E appropriate to and for use in the execution of their Work.
- C. Shop Drawing license granted to Ecology: Contractor and all Subcontractors grant a non-exclusive license to Ecology, without additional cost or royalty, to use for its own purposes (including reproduction) all Shop Drawings, together with the information and diagrams contained therein, prepared by Contractor or any Subcontractor. In providing Shop Drawings, Contractor and all Subcontractors warrant that they have authority to grant to Ecology a license to use the Shop Drawings, and that such license is not in violation of any copyright or other intellectual property right. Contractor agrees to defend and indemnify Ecology and Ecology's Representative pursuant to the indemnity provisions in Section 5.03 and 5.22 from any violations of copyright or other intellectual property rights arising out of Ecology's use of the Shop Drawings hereunder, or to secure for Ecology, at Contractor's own cost, licenses in conformity with this section.
- D. Shop Drawings to be used only for this Project: The Shop Drawings and other submittals prepared by Contractor, Subcontractors of any tier, or its or their equipment or material suppliers, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor of any tier, or material or equipment supplier, on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Ecology. The Contractor, Subcontractors of any tier, and material or equipment suppliers are granted a limited license to use and reproduce applicable portions of the Shop Drawings and other submittals appropriate to and for use in the execution of their Work under the Contract Documents.

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**PART 5 – PERFORMANCE**

**5.01 CONTRACTOR CONTROL AND SUPERVISION**

- A. Contractor responsible for Means and Methods of construction: Contractor shall supervise and direct the Work, using its best skill and attention, and shall perform the Work in a skillful manner. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, unless the Contract Documents give other specific instructions concerning these matters. Contractor shall disclose its means and methods of construction when requested by Ecology.
- B. Competent Superintendent required: Performance of the Work shall be directly supervised by a competent superintendent who has authority to act for Contractor. The superintendent must be satisfactory to Ecology and shall not be changed without the prior written consent of Ecology. Ecology may require Contractor to remove the superintendent from the Work or Project site, at no cost to Ecology for delay or any other claim, if Ecology reasonably deems the superintendent incompetent, negligent, or otherwise objectionable, provided Ecology has first notified Contractor in writing and allowed a reasonable period for transition. Noncompliance with Ecology's request to remove and replace the superintendent for a material reason shall also be grounds for terminating the Contract for cause.
- C. Contractor responsible for acts and omissions of self and agents: Contractor shall be responsible to Ecology for acts and omissions of Contractor, Subcontractors, and their employees and agents.
- D. Contractor to employ competent and disciplined workforce: Contractor shall enforce strict discipline and good order among all of the Contractor's employees and other persons performing the Work. Contractor shall not permit employment of persons not skilled in tasks assigned to them. Contractor's employees shall at all times conduct business in a manner which assures fair, equal, and nondiscriminatory treatment of all persons. Ecology may, by written notice, require Contractor to remove from the Work or Project site, at no cost to the Ecology for delay or any other claim, any employee Ecology reasonably deems incompetent, negligent, or otherwise objectionable. Noncompliance with Ecology's request to remove and replace personnel at any level for a material reason shall also be grounds for terminating the Contract for cause.



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- E. Contractor to keep project documents on site: Contractor shall keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed Shop Drawings, and permits and permit drawings.
- F. Contractor to comply with ethical standards: Contractor shall ensure that its owner(s) and employees, and those of its Subcontractors, comply with the Ethics in Public Service Act RCW 42.52, which, among other things, prohibits state employees from having an economic interest in any public works contract that was made by, or supervised by, that employee. Contractor shall remove at its sole cost and expense any of its, or its Subcontractors' employees if they are in violation of this act.

**5.02 PERMITS, FEES, AND NOTICES**

- A. Contractor to obtain and pay for permits: Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses, and inspections necessary for proper execution and completion of the Work. Prior to Final Acceptance, the approved, signed permits shall be delivered to Ecology.
- B. Allowances for permit fees: The actual cost of the general building permit (only) and the public utility hook-up fees will be a direct reimbursement to the Contractor or paid directly to the permitting agency by the Ecology. Fees for these permits should not be included by the Contractor in his bid amount.
- C. Contractor to comply with all applicable laws: Contractor shall comply with and give notices required by all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.
- D. Contractor to submit copies: The General Contractor shall submit copies of each valid permit required on the project to the Ecology or Ecology's representative. Nothing in this part shall be construed as imposing a duty upon Ecology or the A/E to secure permits.

**5.03 PATENTS AND ROYALTIES**

Payment, indemnification, and notice: Contractor is responsible for, and shall pay, all royalties and license fees. Contractor shall defend, indemnify, and hold Ecology and Ecology's Representative harmless from any costs, expenses, and liabilities arising out of the infringement by Contractor of any patent, copyright, or other intellectual property right used in the Work; however, provided that Contractor gives prompt

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notice, Contractor shall not be responsible for such defense or indemnity when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents. If Contractor has reason to believe that use of the required design, process, or product constitutes an infringement of a patent or copyright, it shall promptly notify Ecology of such potential infringement.

**5.04 PREVAILING WAGES**

- A. Contractor to pay Prevailing Wages or applicable Federal Wages: Contractor shall pay the prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of the Department of Labor and Industries. The schedule of prevailing wage rates for the locality or localities of the Work, is determined by the Industrial Statistician of the Department of Labor and Industries. It is the Contractor’s responsibility to verify the applicable prevailing wage rate. If applicable, the Contractor shall comply with all Federal Funding requirements of the Davis Bacon Act that will be addressed in a separate “DIVISION 00, Special Conditions” specification section that will be based on the specific requirements of the funding source.
- B. Statement of Intent to Pay Prevailing Wages: Before payment is made by Ecology to the Contractor for any work performed by the Contractor and subcontractors whose work is included in the application for payment, the Contractor shall submit, or shall have previously submitted to Ecology for the Project, a Statement of Intent to Pay Prevailing Wages, approved by the Department of Labor and Industries, certifying the rate of hourly wage paid and to be paid each classification of laborers, workers, or mechanics employed upon the Work by Contractor and Subcontractors. Such rates of hourly wage shall not be less than the prevailing wage rate.
- C. Affidavit of Wages Paid: Prior to release of retainage, the Contractor shall submit to Ecology an Affidavit of Wages Paid, approved by the Department of Labor and Industries, for the Contractor and every subcontractor, of any tier, that performed work on the project.
- D. Disputes: Disputes regarding prevailing wage rates shall be referred for arbitration to the Director of the Department of Labor and Industries. The arbitration decision shall be final and conclusive and binding on all parties involved in the dispute as provided for by RCW 39.12.060.

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- E. Statement with pay application; Post Statements of Intent at job site: Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the pre-filed statement(s) of intent, as approved. Copies of the approved intent statement(s) will be posted on the job site with the address and telephone number of the Industrial Statistician of the Department of Labor and Industries where a complaint or inquiry concerning prevailing wages may be made.
- F. Contractor to pay for Statements of Intent and Affidavits: In compliance with chapter 296-127 WAC, Contractor shall pay to the Department of Labor and Industries the currently established fee(s) for each statement of intent and/or affidavit of wages paid submitted to the Department of Labor and Industries for certification.
- G. Certified Payrolls: Consistent with RCW 39.12.120, contractors, subcontractors, or employers shall file a copy of its certified payroll records using the Department of Labor and Industries' online system at least once per month. If the Department of Labor and Industries' online system is not used, a contractor, subcontractor, or employer shall file a copy of its certified payroll records directly with the Department of Labor and Industries in a format approved by the Department of Labor and Industries at least once per month. A contractor, subcontractor, or employer's noncompliance with this section constitutes a violation of RCW 39.12.050.
- H. Compliance with Federal Funding requirements: If applicable, the Contractor shall comply with all Federal Funding requirements of the Davis Bacon Act that will be addressed in a separate "DIVISION 00, SPECIAL CONDITIONS" specification section that will be based on the specific requirements of the funding source.

**5.05 HOURS OF LABOR**

- A. Overtime: Contractor shall comply with all applicable provisions of RCW 49.28, and they are incorporated herein by reference. Pursuant to that statute no laborer, worker, or mechanic employed by Contractor, any Subcontractor, or any other person performing or contracting to do the whole or any part of the Work shall be permitted or required to work more than eight hours in any one calendar day, provided that in cases of extraordinary emergency, such as danger to life or property, the hours of work may be extended, but in such cases the rate of pay for time employed in excess of eight hours of each calendar day

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shall be not less than one and one-half times the rate allowed for this same amount of time during eight hours of service.

- B. 4-10 Agreements: Notwithstanding the preceding paragraph, RCW 49.28 permits a contractor or subcontractor in any public works contract subject to those provisions, to enter into an agreement with its employees in which the employees work up to ten hours in a calendar day. No such agreement may provide that the employees work ten-hour days for more than four calendar days a week. Any such agreement is subject to approval by the employees. The overtime provisions of RCW 49.28 shall not apply to the hours, up to forty hours per week, worked pursuant to any such agreement.

**5.06 NONDISCRIMINATION**

- A. Discrimination prohibited by applicable laws: The Contractor and all Subcontractors shall comply with all applicable federal and state non-discrimination laws, regulations, and policies. No person shall, on the grounds of age, race, creed, color, sex, sexual orientation, religion, national origin, marital status, honorably discharged veteran or military status, or disability (physical, mental, or sensory) be denied the benefits of, or otherwise be subjected to discrimination under any project, program, or activity, funded, in whole or in part, under this Agreement.
- B. During Performance of the Work:
1. Protected Classes: Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, nor commit any other unfair practices as defined in RCW 49.60.
  2. Advertisements to state nondiscrimination: Contractor shall, in all solicitations or advertisements for employees placed by or for it, state that all qualified applicants will be considered for employment without regard to race, creed, color, national origin, sex, sexual orientation, age, marital status, or the presence of any physical, sensory, or mental disability.
  3. Contractor to notify unions and others of nondiscrimination: Contractor shall send to each labor union, employment agency, or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union, employment

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agency, or workers' representative of Contractor's obligations according to the Contract Documents and RCW 49.60.

4. Ecology and State access to Contractor records: Contractor shall permit access to its books, records, and accounts, and to its premises by Ecology, and by the Washington State Human Rights Commission, for the purpose of investigation to ascertain compliance with this section of the Contract Documents.
5. Pass through provisions to Subcontractors: Contractor shall include the provisions of this section in every Subcontract.

**5.07 SAFETY PRECAUTIONS**

- A. In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoid work interruptions. For these purposes, the Contractor shall:
  1. Follow Washington Industrial Safety and Health Act (WISHA) regional directives and provide a site-specific safety program that will require an accident prevention and hazard analysis plan for the contractor and each subcontractor on the work site. The Contractor shall submit a site-specific safety plan to Ecology or Ecology's representative prior to the initial scheduled construction meeting.
  2. Provide adequate safety devices and measures including, but not limited to, the appropriate safety literature, notice, training, permits, placement and use of barricades, signs, signal lights, ladders, scaffolding, staging, runways, hoist, construction elevators, shoring, temporary lighting, grounded outlets, wiring, hazardous materials, vehicles, construction processes, and equipment required by all applicable state, federal, and local laws and regulations.
  3. Comply with the State Environmental Policy Act (SEPA), Clean Air Act, Shoreline Management Act, and other applicable federal, state, and local statutes and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources.
  4. Post all permits, notices, and/or approvals in a conspicuous location at the construction site.

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5. Provide any additional measures that Ecology determines to be reasonable and necessary for ensuring a safe environment in areas open to the public. Nothing in this part shall be construed as imposing a duty upon Ecology or the A/E to prescribe safety conditions relating to employees, public, or agents of the Contractors.
- B. Contractor safety responsibilities: In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to materials, supplies, and equipment whether on-site or stored off-site; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property, or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of adjacent property and utilities when prosecution of the Work may affect them.
  - C. Contractor to maintain safety records: Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Ecology. Ecology shall, at all times, have a right of access to all records of exposure.
  - D. Contractor to provide HazMat training: Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.
    1. Information: At a minimum, Contractor shall inform persons working on the Project site of:
      - (a) WAC: The requirements of Chapter 296-62 WAC, General Occupational Health Standards
      - (b) Presence of hazardous chemicals: Any operations in their work area where hazardous chemicals are present; and
      - (c) Hazard communications program: The location and availability of written hazard communication programs, including the required list(s)

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of hazardous chemicals and Safety Data Sheets (SDS) required by Chapter 296-62 WAC and Chapter 296-901 WAC.

2. Training: At a minimum, Contractor shall provide training for persons working on the Project site, which includes:
  - (a) Detecting hazardous chemicals: Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
  - (b) Hazards of chemicals: The physical and health hazards of the chemicals in the work area;
  - (c) Protection from hazards: The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
  - (d) Hazard communications program: The details of the hazard communications program developed by Contractor or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
- E. Hazardous, toxic, or harmful substances: Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:
  1. Illegal use of dangerous substances: Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state, or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances"), in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 Days on the Project site.
  2. Contractor notifications of spills, failures, inspections, and fines: Contractor shall promptly notify Ecology of all spills or releases of any hazardous substances which are otherwise required to be reported to any regulatory

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agency and pay the cost of cleanup. Contractor shall promptly notify Ecology of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project site by any regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project site.

- F. Public safety and traffic: All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- G. Contractor to act in an emergency: In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.
- H. No duty of safety by Ecology or A/E: Nothing provided in this section shall be construed as imposing any duty upon Ecology or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

**5.08 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS**

- A. Limited storage areas: Contractor shall confine all operations, including storage of materials, to Ecology-approved areas.
- B. Temporary buildings and utilities at Contractor expense: Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be provided by Contractor only with the consent of Ecology and without expense to Ecology. The temporary buildings and utilities shall be removed by Contractor at its expense upon completion of the Work.
- C. Roads and vehicle loads: Contractor shall use only established roadways or temporary roadways authorized by Ecology. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by federal, state, or local law or regulation.



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- D. Ownership and reporting by Contractor of demolished materials: Ownership and control of all materials or facility components to be demolished or removed from the Project site by Contractor shall immediately vest in Contractor upon severance of the component from the facility or severance of the material from the Project site. Contractor shall be responsible for compliance with all laws governing the storage and ultimate disposal. Contractor shall provide Ecology with a copy of all manifests and receipts evidencing proper disposal when required by Ecology or applicable law.
- E. Contractor responsible for care of materials and equipment on site: Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site. Materials and equipment may be stored on the premises subject to approval of Ecology. When Contractor uses any portion of the Project site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.
- F. Contractor responsible for loss of materials and equipment: Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Substantial Completion, and shall repair or replace without cost to Ecology any damage or loss that may occur, except damages or loss caused by the acts or omissions of Ecology. Contractor shall also protect and be responsible for any damage or loss to the Work, or to the materials or equipment, after the date of Substantial Completion, and shall repair or replace without cost to Ecology any such damage or loss that might occur, to the extent such damages or loss are caused by the acts or omissions of Contractor, or any Subcontractor.

**5.09 PRIOR NOTICE OF EXCAVATION**

- A. "Excavation defined: Use of locator services: "Excavation" means an operation in which earth, rock, or other material on or below the ground is moved or otherwise displaced by any means, except the tilling of soil less than 12 inches in depth for agricultural purposes, or road ditch maintenance that does not change the original road grade or ditch flow line. Before commencing any excavation, Contractor shall provide notice of the scheduled commencement of excavation to all owners of underground facilities and utilities through locator services.

**5.10 UNFORESEEN PHYSICAL CONDITIONS**

- A. Notice requirement for concealed or unknown conditions: If Contractor encounters conditions at the site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Ecology promptly before conditions are disturbed and in no event later than 7 Days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.
- B. Adjustment in Contract Time and Contract Sum: If such conditions differ materially and cause a change in Contractor's cost of, or time required for, performance of any part of the Work, the Contractor may be entitled to an equitable adjustment in the Contract Time or Contract Sum or both, provided it makes a request thereof as provided in Part 7.

**5.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, VEGETATION, UTILITIES, AND IMPROVEMENTS**

- A. Contractor to protect and repair property: Contractor shall protect from damage all existing structures, equipment, improvements, utilities, and vegetation at or near the Project site, and on adjacent property of a third party, the locations of which are made known to or should be known by Contractor. Contractor shall repair any damage, including that to the property of a third party, resulting from failure to comply with the requirements of the Contract Documents or failure to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly, Ecology may have the necessary work performed and charge the cost to Contractor.
- B. Tree and vegetation protection: Contractor shall only remove trees when specifically authorized to do so, and shall protect vegetation that will remain in place.

**5.12 LAYOUT OF WORK**

- A. Advanced planning of the Work: Contractor shall plan and lay out the Work in advance of operations so as to coordinate all work without delay or revision.

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- B. Layout responsibilities: Contractor shall lay out the Work from Ecology-established baselines and benchmarks indicated on the Drawings, and shall be responsible for all field measurements in connection with the layout. Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. Contractor shall be responsible for executing the Work to the lines and grades that may be established. Contractor shall be responsible for maintaining or restoring all stakes and other marks established.

**5.13 MATERIAL AND EQUIPMENT**

- A. Contractor to provide new and equivalent equipment and materials: All equipment, material, and articles incorporated into the Work shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents. References in the Specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard quality and shall not be construed as limiting competition. Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of A/E, is equal to that named in the specifications, unless otherwise specifically provided in the Contract Documents.
- B. Use of asbestos-containing building materials: The use of asbestos-containing building materials in new construction or renovation work is strictly prohibited. For the determination of asbestos-containing building materials, the following shall apply:
  - 1. Until January 1, 2025, asbestos deliberately added in any concentration that contains more than one percent asbestos by weight or area as determined using the United States Environmental Protection Agency method for the determination of asbestos in bulk building materials, EPA/600/R-93/116, July 1993.
  - 2. Following January 1, 2025, asbestos building material deliberately added in any concentration that contains more than 1/10th of one percent asbestos by weight or area for the determination of asbestos in bulk building materials, EPA/600/R-93/116, July 1993.
- C. Contractor responsible for fitting parts together: Contractor shall do all cutting, fitting, or patching that may be required to make its several parts fit together properly, or receive or be received by work of others set forth in, or reasonably

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implied by, the Contract Documents. Contractor shall not endanger any work by cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other Contractor unless approved in advance by Ecology.

- D. Ecology may reject defective Work: Should any of the Work be found defective, or in any way not in accordance with the Contract Documents, this work, in whatever stage of completion, may be rejected by Ecology.

**5.14 AVAILABILITY AND USE OF UTILITY SERVICES**

- A. Ecology to provide and charge for utilities: Ecology or Property Owner shall make all reasonable utilities available to Contractor from existing outlets and supplies, as specified in the Contract Documents. Unless otherwise provided in the Contract Documents, the utility service consumed shall be charged to or paid for by Contractor at prevailing rates charged to Ecology or Property Owner or, where the utility is produced by the Ecology, at reasonable rates determined by Ecology. Contractor will carefully conserve any utilities furnished.
- B. Contractor to install temporary connections and meters: Contractor shall, at its expense and in a skillful manner satisfactory to Ecology, install and maintain all necessary temporary connections and distribution lines, together with appropriate protective devices and all meters required to measure the amount of each utility used for the purpose of determining charges. Prior to the date of Final Acceptance, Contractor shall remove all temporary connections, distribution lines, meters, and associated equipment and materials.

**5.15 TESTS AND INSPECTION**

- A. Contractor to provide for all testing and inspection of Work: Contractor shall maintain an adequate testing and inspection program and perform such tests and inspections as are necessary or required to ensure that the Work conforms to the requirements of the Contract Documents. Contractor shall be responsible for inspection and quality surveillance of all its Work and all Work performed by any Subcontractor. Unless otherwise provided, Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to Ecology, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. Contractor shall give Ecology timely notice of when and where tests and inspections are to be made. Contractor shall maintain complete inspection records and make them available to Ecology.

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- B. Ecology may conduct tests and inspections: Ecology may, at any reasonable time, conduct such inspections and tests, as it deems necessary to ensure that the Work is in accordance with the Contract Documents. Ecology shall promptly notify Contractor if an inspection or test reveals that the Work is not in accordance with the Contract Documents. Unless the subject items are expressly accepted by Ecology, such Ecology inspection and tests are for the sole benefit of Ecology and do not:
1. Constitute or imply acceptance;
  2. Relieve Contractor of responsibility for providing adequate quality control measures;
  3. Relieve Contractor of responsibility for risk of loss or damage to the Work, materials, or equipment;
  4. Relieve Contractor of its responsibility to comply with the requirements of the Contract Documents; or
  5. Impair Ecology's right to reject defective or nonconforming items, or to avail itself of any other remedy to which it may be entitled.
- C. Inspections or inspectors do not modify Contract Documents: Neither observations by an inspector retained by Ecology, the presence or absence of such inspector on the site, nor inspections, tests, or approvals by others, shall relieve Contractor from any requirement of the Contract Documents, nor is any such inspector authorized to change any term or condition of the Contract Documents.
- D. Contractor responsibilities on inspections: Contractor shall promptly furnish, without additional charge, all facilities, labor, material, and equipment reasonably needed for performing such safe and convenient inspections and tests as may be required by Ecology. Ecology may charge Contractor any additional cost of inspection or testing when Work is not ready at the time specified by Contractor for inspection or testing, or when prior rejection makes reinspection or retest necessary. Ecology shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

**5.16 CORRECTION OF NONCONFORMING WORK**

- A. Work covered by Contractor without inspection: If a portion of the Work is covered contrary to the requirements in the Contract Documents, it must, if

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- required in writing by Ecology, be uncovered for Ecology's observation and be replaced at the Contractor's expense and without change in the Contract Time.
- B. Payment provisions for uncovering covered Work: If, at any time prior to Final Completion. Ecology desires to examine the Work or any portion of it, which has been covered, Ecology may request to see such Work, and it shall be uncovered by Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an adjustment in the Contract Sum for the costs of uncovering and replacement, and, if completion of the Work is thereby delayed, an adjustment in the Contract Time, provided it makes such a request as provided in Part 7. If such Work is not in accordance with the Contract Documents, the Contractor shall pay the costs of examination and reconstruction.
- C. Contractor to correct and pay for non-conforming Work: Contractor shall promptly correct Work found by Ecology not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.
- D. Contractor's compliance with warranty provisions: If, within one year after the date of Substantial Completion of the Work, or designated portion thereof, or within one year after the date for commencement of any system warranties established under Section 6.08, or within the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Contractor shall correct it promptly after receipt of written notice from Ecology to do so. Ecology shall give such notice promptly after discovery of the condition. This period of one year shall be extended, with respect to portions of Work first performed after Substantial Completion, by the period of time between Substantial Completion and the actual performance of the Work. Contractor's duty to correct with respect to Work repaired or replaced shall run for one year from the date of repair or replacement. Obligations under this paragraph shall survive Final Acceptance.
- E. Contractor to remove non-conforming Work: Contractor shall remove from the Project site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by Ecology.

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- F. Ecology may charge Contractor for non-conforming Work: If Contractor fails to correct nonconforming Work within a reasonable time after written notice to do so, Ecology may replace, correct, or remove the nonconforming Work and charge the cost thereof to the Contractor.
- G. Contractor to pay for damaged Work during correction: Contractor shall bear the cost of correcting destroyed or damaged Work, whether completed or partially completed, caused by Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.
- H. No Period of limitation on other requirements: Nothing contained in this section shall be construed to establish a period of limitation with respect to other obligations which Contractor might have according to the Contract Documents. Establishment of the time period of one year as described in Section 5.16D relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the Contractor's obligation to comply with the Contract Documents may be sought to be enforced, including the time within which such proceedings may be commenced.
- I. Ecology may accept non-conforming Work and charge Contractor: If Ecology prefers to accept Work which is not in accordance with the requirements of the Contract Documents, Ecology may do so instead of requiring its removal and correction, in which case the Contract sum may be reduced as appropriate and equitable.

**5.17 CLEANUP**

Contractor to keep site clean and leave it clean: Contractor shall at all times keep the Project site, including hauling routes, infrastructures, utilities, and storage areas, free from accumulations of waste materials. Before completing the Work, Contractor shall remove from the premises its rubbish, tools, scaffolding, equipment, and materials. Upon completing the Work, Contractor shall leave the Project site in a clean, neat, and orderly condition satisfactory to Ecology. If Contractor fails to clean up as provided herein, and after reasonable notice from Ecology, Ecology may do so and the cost thereof shall be charged to Contractor.

**5.18 ACCESS TO WORK**

Ecology and A/E access to Work site: Contractor shall provide Ecology and A/E access to the Work in progress wherever located.

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**5.19 OTHER CONTRACTS**

Ecology may award other contracts; Contractor to cooperate: Ecology may undertake or award other contracts for additional work at or near the Project site. Contractor shall reasonably cooperate with the other contractors and with Ecology's employees and shall carefully adapt scheduling and perform the Work in accordance with these Contract Documents to reasonably accommodate the other work.

**5.20 SUBCONTRACTORS AND SUPPLIERS**

- A. Subcontractor Responsibility: The Contractor shall include the language of this paragraph 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. Upon request of Ecology, the Contractor shall promptly provide documentation to Ecology demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this paragraph apply to all subcontractors regardless of tier. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
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 subcontract bid submittal.
  2. Have a current Washington Unified Business Identifier (UBI) number.
  3. If applicable, have:
    - (a) Industrial Insurance (workers' compensation) coverage for the subcontractor'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.
  4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).



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5. On a project subject to the apprenticeship utilization requirements in RCW 39.04.320, not have been found out of compliance by the Washington State apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the date of Ecology's first advertisement of the project.
  6. Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the L&I or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.
- B. Provide names of Subcontractors and use qualified firms: Contractor shall utilize Subcontractors and suppliers, which are experienced and qualified, and meet the requirements of the Contract Documents, if any. Contractor shall not utilize any Subcontractor or supplier to whom Ecology has a reasonable objection, and shall obtain Ecology's written consent before making any substitutions or additions. Substitutions of subcontractors listed on Forms A and B are only allowable according to RCW 39.30.060.
- C. Subcontracts in writing and pass through provision: All Subcontracts must be in writing. By appropriate written agreement, Contractor shall require each Subcontractor, so far as applicable to the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward Ecology in accordance with the Contract Documents. Each Subcontract shall preserve and protect the rights of Ecology and Ecology's Representative in accordance with the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. However, nothing in this paragraph shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.
- D. Coordination of Subcontractors; Contractor responsible for Work: Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors.

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No Subcontracting of any of the Work shall relieve Contractor from its responsibility for the performance of the Work in accordance with the Contract Documents or any other obligations of the Contract Documents.

- E. Automatic assignment of subcontracts: Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Ecology provided that:
1. Effective only after termination and Ecology approval: The assignment is effective only after termination by Ecology for cause pursuant to Section 9.01 and only for those Subcontracts which Ecology accepts by notifying the Subcontractor in writing; and
  2. Ecology assumes Contractor's responsibilities: After the assignment is effective, Ecology will assume all future duties and obligations toward the Subcontractor which Contractor assumed in the Subcontract.
  3. Impact of bond: The assignment is subject to the prior rights of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

**5.21 WARRANTY OF CONSTRUCTION**

- A. Contractor warranty of Work: In addition to any special warranties provided elsewhere in the Contract Documents, Contractor warrants that all Work conforms to the requirements of the Contract Documents and is free of any defect in equipment, material, or design furnished, or workmanship performed by Contractor.
- B. Contractor responsibilities: With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:
1. Obtain warranties: Obtain all warranties that would be given in normal commercial practice;
  2. Warranties for benefit of Ecology: Require all warranties to be executed, in writing, for the benefit of Ecology;
  3. Enforcement of warranties: Enforce all warranties for the benefit of Ecology, if directed by Ecology; and
  4. Contractor responsibility for subcontractor warranties: Be responsible to enforce any subcontractor's, manufacturers, or supplier's warranties

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should they extend beyond the period specified in the Contract Documents.

- C. Warranties beyond Final Acceptance: The obligations under this section will survive Final Acceptance.

**5.22 INDEMNIFICATION**

- A. Contractor to indemnify Ecology and Property Owner: Contractor shall defend, indemnify, and hold Ecology and Ecology’s Representative, A/E, and Property Owner harmless from and against all claims, demands, losses, damages, or costs, including but not limited to damages arising out of bodily injury or death to persons and damage to property, caused by or resulting from:
  - 1. Sole negligence of Contractor: The sole negligence of Contractor or any of its Subcontractors;
  - 2. Concurrent negligence: The concurrent negligence of Contractor, or any Subcontractor, but only to the extent of the negligence of Contractor or such Subcontractor; and
  - 3. Patent infringement: The use of any design, process, or equipment which constitutes an infringement of any United States patent presently issued, or violates any other proprietary interest, including copyright, trademark, and trade secret.
- B. Employee action and RCW Title 51: In any action against Ecology and any other entity indemnified in accordance with this section by any employee of Contractor, its Subcontractors, Sub-subcontractors, agents, or anyone directly or indirectly employed by any of them, the indemnification obligation of this section shall not be limited by a limit on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under RCW Title 51, the Industrial Insurance Act, or any other employee benefit acts. In addition, Contractor waives immunity as to Ecology, A/E, and Property Owner only, in accordance with RCW Title 51.

**PART 6 – PAYMENTS AND COMPLETION**

**6.01 CONTRACT SUM**

Ecology shall pay Contract Sum: Ecology shall pay Contractor the Contract Sum plus state sales tax for performance of the Work, in accordance with the Contract Documents.

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**6.02 SCHEDULE OF VALUES**

Contractor is to submit Schedule of Values: Before submitting its first Application for Payment, Contractor shall submit to Ecology for approval a breakdown allocating the total Contract Sum to each principal category of work, in such detail as requested by Ecology (“Schedule of Values”). The approved Schedule of Values shall include costs under each bid item in the bid proposal. If the bid proposal is a single lump sum value, then the Schedule of Values shall include appropriate amounts for demobilization, record drawings, O&M manuals, and any other requirements for Project closeout, and shall be used by Ecology as the basis for progress payments. Payment for Work shall be made only for and in accordance with those items included in the Schedule of Values.

**6.03 APPLICATION FOR PAYMENT**

- A. Monthly Application for Payment with substantiation: At monthly intervals, unless determined otherwise by Ecology, Contractor shall submit to Ecology an itemized Application for Payment for Work completed in accordance with the Contract Documents and the approved Schedule of Values. Each application shall be supported by such substantiating data as Ecology may require.
- B. Contractor certifies Subcontractors paid: By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with RCW 60.28.011, as their interests appeared in the last preceding certificate of payment. By submitting an Application for Payment, Contractor is recertifying that the representations set forth in Section 1.03 are true and correct, to the best of Contractor's knowledge, as of the date of the Application for Payment.
- C. Reconciliation of Work with Progress Schedule: At the time it submits an Application for Payment, Contractor shall analyze and reconcile, to the satisfaction of Ecology, the actual progress of the Work with the Progress Schedule.
- D. Payment for material delivered to site or stored off-site: If authorized by Ecology, the Application for Payment may include request for payment for material delivered to the Project site and suitably stored, or for completed preparatory work. Payment may similarly be requested for material stored off the Project site, provided Contractor complies with or furnishes satisfactory evidence of the following:

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1. Suitable facility or location: The material will be placed in a facility or location that is structurally sound, dry, lighted, and suitable for the materials to be stored;
2. Facility or location within 10 miles of Project: The facility or location is located within a 10-mile radius of the Project. Other locations may be utilized, if approved in writing, by Ecology;
3. Facility or location exclusive to Project's materials: Only materials for the Project are stored within the facility or location (or a secure portion of a facility or location set aside for the Project);
4. Insurance provided on materials in facility or location: Contractor furnishes Ecology a Certificate of Insurance extending Contractor's insurance coverage for damage, fire, and theft to cover the full value of all materials stored, or in transit;
5. Facility or location locked and secure: The facility or location (or secure portion thereof) is continuously under lock and key, and only Contractor's authorized personnel shall have access;
6. Ecology right of access to facility or location: Ecology shall at all times have the right of access in company of Contractor;
7. Contractor assumes total responsibility for stored materials: Contractor and its surety assume total responsibility for the stored materials; and
8. Contractor provides documentation and Notice when materials moved to site: Contractor furnishes to Ecology certified lists of materials stored, bills of lading, invoices, and other information as may be required, and shall also furnish Notice to Ecology when materials are moved from storage to the Project site.

**6.04 PROGRESS PAYMENTS**

- A. Ecology to pay within 30 Days: Ecology shall make progress payments, in such amounts as Ecology determines are properly due, within 30 Days after receipt of a properly executed Application for Payment. Ecology shall notify Contractor in accordance with RCW 39.76 if the Application for Payment does not comply with the requirements of the Contract Documents.
- B. Withholding retainage; Options for retainage: Ecology shall retain 5% of the amount of each progress payment until 45 Days after Final Acceptance and receipt of all documents required by law or the Contract Documents, including,

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at Ecology’s request, consent of surety to release of the retainage. In accordance with chapter 60.28 RCW, Contractor may request that monies reserved be retained in a fund by Ecology, deposited by Ecology in a bank or savings and loan, or placed in escrow with a bank or trust company to be converted into bonds and securities to be held in escrow with interest to be paid to Contractor. Ecology may permit Contractor to provide an appropriate bond in lieu of the retained funds.

- C. Title passes to Ecology upon payment: Title to all Work and materials covered by a progress payment shall pass to Ecology at the time of such payment free and clear of all liens, claims, security interests, and encumbrances. Passage of title shall not, however, relieve Contractor from any of its duties and responsibilities for the Work or materials, or waive any rights of Ecology to insist on full compliance by Contractor with the Contract Documents.
- D. Interest on unpaid balances: Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in chapter 39.76 RCW.

**6.05 PAYMENTS WITHHELD**

- A. Ecology’s right to withhold payment: Ecology may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary to protect Ecology from loss or damage for reasons including but not limited to:
  - 1. Non-compliant Work: Work not in accordance with the Contract Documents;
  - 2. Remaining Work to cost more than unpaid balance: Reasonable evidence that the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum;
  - 3. Ecology correction or completion of Work: Work by Ecology to correct defective Work or complete the Work in accordance with Section 5.16;
  - 4. Contractor’s failure to perform: Contractor’s failure to perform in accordance with the Contract Documents; or
  - 5. Contractor’s negligent acts or omissions: Cost or liability that may occur to Ecology as the result of Contractor’s fault or negligent acts or omissions.
- B. Ecology to notify Contractor of withholding for unsatisfactory performance: In any case where part or all of a payment is going to be withheld for

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unsatisfactory performance, Ecology shall notify Contractor in accordance with chapter 39.76 RCW.

**6.06 RETAINAGE AND BOND CLAIM RIGHTS**

Chapters 39.08 RCW and 60.28 RCW incorporated by reference: Chapters 39.08 RCW and 60.28 RCW, concerning the rights and responsibilities of Contractor and Ecology with regard to the performance and payment bonds and retainage, are made a part of the Contract Documents by reference as though fully set forth herein.

**6.07 SUBSTANTIAL COMPLETION**

Substantial Completion defined: Substantial Completion is the stage in the progress of the Work (or portion thereof designated and approved by Ecology) when the construction is sufficiently complete, in accordance with the Contract Documents, so Ecology and Property Owner has full and unrestricted use and benefit of the facilities/improvements (or portion thereof designated and approved by Ecology) for the use for which it is intended. All Work other than incidental corrective or punch list work shall be completed. Substantial Completion shall not have been achieved if all systems and parts are not functional, if utilities are not connected and operating normally, if all required occupancy permits have not been issued, or if the Work is not accessible by normal vehicular and pedestrian traffic routes. The date Substantial Completion is achieved shall be established in writing by Ecology. Contractor may request an early date of Substantial Completion, which must be approved by Change Order. Ecology's or Property Owner's occupancy of the Work or designated portion thereof does not necessarily indicate that Substantial Completion has been achieved.

**6.08 PRIOR OCCUPANCY**

- A. Prior Occupancy defined; Restrictions: Ecology may, upon written notice thereof to Contractor, take possession of or use any completed or partially completed portion of the Work ("Prior Occupancy") at any time prior to Substantial Completion. Unless otherwise agreed in writing, Prior Occupancy shall not: be deemed an acceptance of any portion of the Work; accelerate the time for any payment to Contractor; prejudice any rights of Ecology provided by any insurance, bond, guaranty, or the Contract Documents; relieve Contractor of the risk of loss or any of the obligations established by the Contract Documents; establish a date for termination or partial termination of the assessment of liquidated damages; or constitute a waiver of claims.

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- B. Damage; Duty to repair and warranties: Notwithstanding anything in the preceding paragraph, Ecology shall be responsible for loss of or damage to the Work resulting from prior occupancy. Contractor's one-year duty to repair any system warranties shall begin on building or equipment systems activated and used by Ecology as agreed in writing by Ecology and Contractor.

**6.09 FINAL COMPLETION, ACCEPTANCE, AND PAYMENT**

- A. Final Completion defined: Final Completion shall be achieved when the Work is fully and finally complete in accordance with the Contract Documents. The date Final Completion is achieved shall be established by Ecology in writing, but in no case shall constitute Final Acceptance which is a subsequent, separate, and distinct action.
- B. Final Acceptance defined: Final Acceptance shall be achieved when the Contractor has completed the requirements of the Contract Documents. The date Final Acceptance is achieved shall be established by Ecology in writing. Prior to Final Acceptance, Contractor shall in addition to all other requirements in the Contract Documents, submit to Ecology a written notice of any outstanding disputes or claims between Contractor and any of its Subcontractors, including the amounts and other details thereof. Neither Final Acceptance, nor final payment, shall release Contractor or its sureties from any obligations of these Contract Documents or the payment and performance bonds, or constitute a waiver of any claims by Ecology arising from Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Final payment waives Claim rights: Acceptance of final payment by Contractor, or any Subcontractor, shall constitute a waiver and release to Ecology of all claims by Contractor, or any such Subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of Ecology relating to or arising out of the Work, except for those Claims made in accordance with the procedures, including the time limits, set forth in Part 8.

**PART 7 – CHANGES**

**7.01 CHANGE IN THE WORK**

- A. Changes in Work, Contract Sum, and Contract Time by Change Order: Ecology may, at any time and without notice to Contractor's surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of



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Change Orders. If any change in the Work ordered by Ecology causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made as provided in Section 7.02 or 7.03, respectively, and such adjustment(s) shall be incorporated into a Change Order.

- B. Ecology may request COP from Contractor: If Ecology desires to order a change in the Work, it may request a written Change Order Proposal (COP) from Contractor. Contractor shall submit a Change Order Proposal within 14 Days of the request from Ecology, or within such other period as mutually agreed. Contractor's Change Order Proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the Work and for any expense or inconvenience, disruption of schedule, or loss of efficiency or productivity occasioned by the change in the Work.
- C. COP negotiations: Upon receipt of the Change Order Proposal, or a request for equitable adjustment in the Contract Sum or Contract Time, or both, as provided in Sections 7.02 and 7.03, Ecology may accept or reject the proposal, request further documentation, or negotiate acceptable terms with Contractor. Pending agreement on the terms of the Change Order, Ecology may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained Ecology's approval. All Work done pursuant to any Ecology Representative-directed change in the Work shall be executed in accordance with the Contract Documents.
- D. Change Order as full payment and final settlement: If Ecology and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment.
- E. Failure to agree upon terms of Change Order, Final offer and Claims: If Ecology and Contractor are unable to reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, Contractor may at any time, in writing, request a final offer from Ecology.

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Ecology shall provide Contractor with its written response within 30 Days of Contractor's request. Ecology may also provide Contractor with a final offer at any time. If Contractor rejects Ecology's final offer, or the parties are otherwise unable to reach agreement, Contractor's only remedy will be to file a Claim as provided in Part 8.

- F. Field Authorizations: Ecology may direct the Contractor to proceed with a change in the work through a written Field Authorization (also referred to as a Field Order) when the time required to price and execute a Change Order would impact the Project. The Field Authorization shall describe and include the following:
1. The scope of work
  2. An agreed upon maximum not-to-exceed amount
  3. Any estimated change to the Contract Time
  4. The method of final cost determination in accordance with the requirements of Part 7 of the General Conditions
  5. The supporting cost data to be submitted in accordance with the requirements of Part 7 of the General Conditions

Upon satisfactory submittal by the Contractor and approval by Ecology of supporting cost data, a Change Order will be executed. Ecology will not make payment to the Contractor for Field Authorization work until that work has been incorporated into an executed Change Order.

**7.02 CHANGE IN THE CONTRACT SUM**

- A. General Application
1. Contract Sum changes only by Change Order: The Contract Sum shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Sum in its Change Order Proposal.
  2. Ecology fault or negligence as basis for change in Contract Sum: If the cost of Contractor's performance is changed due to the fault or negligence of Ecology, or anyone for whose acts Ecology is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Sum in accordance with the following procedure. No change in the Contract Sum shall be allowed to the extent: Contractor's changed cost of performance is due to the fault or negligence of Contractor, or anyone

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for whose acts Contractor is responsible; the change is concurrently caused by Contractor and Ecology; or the change is caused by an act of Force Majeure as defined in Section 3.05.

- (a) Notice and record keeping for equitable adjustment: A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to Ecology within 7 Days of the occurrence of the event-giving rise to the request. For purposes of this part, “occurrence” means when Contractor knew, or in its diligent prosecution of the Work should have known, of the event giving rise to the request. If Contractor believes it is entitled to an adjustment in the Contract Sum, Contractor shall immediately notify Ecology and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Ecology access to any such records and, if requested, shall promptly furnish copies of such records to Ecology.
- (b) Content of notice for equitable adjustment; Failure to comply: Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that occurred more than 7 Days before Contractor's written notice to Ecology. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Sum; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible, the amount of the adjustment in Contract Sum requested. Failure to properly give such written notice shall, to the extent Ecology's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
- (c) Contractor to provide supplemental information: Within 30 Days of the occurrence of the event giving rise to the request, unless Ecology agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with Subparagraph “a.” above with additional supporting data. Such additional data shall include, at a minimum: the amount of compensation requested, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the damages claimed, but that the damages claimed were actually a result of the act, event, or condition complained of and that the Contract Documents provide

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entitlement to an equitable adjustment to Contractor for such act, event, or condition; and documentation sufficiently detailed to permit an informed analysis of the request by Ecology. When the request for compensation relates to a delay, or other change in Contract Time, Contractor shall demonstrate the impact on the critical path, in accordance with Section 7.03C. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Ecology's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

- (d) Contractor to proceed with Work as directed: Pending final resolution of any request made in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
  - (e) Contractor to combine requests for same event together: Any requests by Contractor for an equitable adjustment in the Contract Sum and in the Contract Time that arise out of the same event(s) shall be submitted together.
3. Methods for calculating Change Order amount: The value of any Work covered by a Change Order, or of any request for an equitable adjustment in the Contract Sum, shall be determined by one of the following methods:
- (a) Fixed Price: On the basis of a fixed price as determined in paragraph 7.02B.
  - (b) Unit Prices: By application of unit prices to the quantities of the items involved as determined in paragraph 7.02C.
  - (c) Time and Materials: On the basis of time and material as determined in paragraph 7.02D.
4. Fixed price method is default; Ecology may direct otherwise: When Ecology has requested Contractor to submit a Change Order Proposal, Ecology may direct Contractor as to which method in subparagraph 3 above to use when submitting its proposal. Otherwise, Contractor shall determine the value of the Work, or of a request for an equitable adjustment, on the basis of the fixed price method.

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B. Change Order Pricing - Fixed Price

Procedures: When the fixed price method is used to determine the value of any Work covered by a Change Order, or of a request for an equitable adjustment in the Contract Sum, the following procedures shall apply:

1. Breakdown and itemization of details on COP: Contractor's Change Order Proposal, or request for adjustment in the Contract Sum, shall be accompanied by a complete itemization of the costs including labor, material, subcontractor costs, and overhead and profit. The costs shall be itemized in the manner set forth below and will be submitted on breakdown sheets in a form approved by Ecology.
2. Use of industry standards in calculating costs: All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.
3. Costs contingent on Ecology's actions: If any of Contractor's pricing assumptions are contingent upon anticipated actions of Ecology, Contractor shall clearly state them in the proposal or request for an equitable adjustment.
4. Markups on additive and deductive Work: The cost of any additive or deductive changes in the Work shall be calculated as set forth below, except that overhead and profit shall not be included on deductive changes in the Work. Where a change in the Work involves additive and deductive work by the same Contractor or Subcontractor, small tools, overhead, profit, bond, and insurance markups will apply to the net difference.
5. Breakdown not required if change less than \$1,000: If the total cost of the change in the Work or request for equitable adjustment does not exceed \$1,000, Contractor shall not be required to submit a breakdown if the description of the change in the Work or request for equitable adjustment is sufficiently definitive for Ecology to determine fair value.
6. Breakdown required if change between \$1,000 and \$2,500: If the total cost of the change in the Work or request for equitable adjustment is between \$1,000 and \$2,500, Contractor may submit a breakdown in the following level of detail if the description of the change in the Work or if the request for equitable adjustment is sufficiently definitive to permit Ecology to determine fair value:

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- (a) lump sum labor;
  - (b) lump sum material;
  - (c) lump sum equipment usage;
  - (d) overhead and profit as set forth below; and
  - (e) insurance and bond costs as set forth below.
7. Components of increased cost: Any request for adjustment of Contract Sum based upon the fixed price method shall include only the following items:
- (a) Craft labor costs: These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. Craft hours should cover direct labor, as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:
    - (i) Basic wages and benefits: Hourly rates and benefits as stated on the Department of Labor and Industries approved “statement of intent to pay prevailing wages” or a higher amount if approved by Ecology. Direct supervision shall be a reasonable percentage not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.
    - (ii) Worker's insurance: Direct contributions to the state of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by the Department of Labor and Industries.
    - (iii) Federal Insurance: Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.
    - (iv) Travel allowance: Travel allowance and/or subsistence, if applicable, not exceeding those allowances established by regional labor union agreements, which are itemized and identified separately.
    - (v) Safety: Costs incurred due to the Washington Industrial Safety and Health Act, which will be a reasonable percentage not to exceed 2 percent of the sum of the amounts calculated in paragraphs (i), (ii), and (iii) above.

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- (b) Material costs: This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs shall be developed first from actual known costs, second from supplier quotations or if these are not available, from standard industry pricing guides. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges, shall be itemized.
- (c) Equipment costs: This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for construction equipment only if used solely for the changed Work, or for additional rental costs actually incurred by the Contractor. Equipment charges shall be computed on the basis of actual invoice costs or if owned, from the current edition of one of the following sources:
- (i) The National Electrical Contractors Association for equipment used on electrical work.
  - (ii) The Mechanical Contractors Association of America for equipment used on mechanical work.
  - (iii) The EquipmentWatch Fleet Manager Estimator Package (digital). The maximum rate for standby equipment shall not exceed that shown in the Associated General Contractors Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement, current edition on the Contract execution date.
- The EquipmentWatch Rental Rate Blue Book shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed that shown in the AGC WSDOT Equipment Rental Agreement, current edition on the Contract execution date.
- (d) Allowance for small tools, expendables & consumable supplies: Small tools consist of tools which cost \$250 or less and are normally furnished by the performing contractor. The maximum rate for small tools shall not exceed the following:
- (i) 3% for Contractor: For Contractor, 3% of direct labor costs.

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- (ii) 5% for Subcontractors: For Subcontractors, 5% of direct labor costs.

Expendables and consumables supplies directly associated with the change in Work must be itemized.

- (e) Subcontractor costs: This is defined as payments Contractor makes to Subcontractors for changed Work performed by Subcontractors of any tier. The Subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.
- (f) Allowance for overhead: This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Ecology of any change in the Contract Sum. If the Contractor is compensated under Section 7.03D, the amount of such compensation shall be reduced by the amount Contractor is otherwise entitled to under this subsection (f). This allowance shall compensate Contractor for all noncraft labor, temporary construction facilities, field engineering, schedule updating, as-built drawings, home office cost, B&O taxes, office engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the change in the Work. It shall be strictly limited in all cases to a reasonable amount, mutually acceptable, or if none can be agreed upon to an amount not to exceed the rates below:
  - (i) Projects less than \$3 million: For projects where the Contract Award Amount is under \$3 million, the following shall apply:
    - Contractor markup on Contractor Work: For Contractor, for any Work actually performed by Contractor's own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
    - Subcontractor markup for Subcontractor Work: For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
    - Contractor markup for Subcontractor Work: For contractors, for any work performed by its Subcontractor(s), 6% of the first



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- \$50,000 of the amount due each Subcontractor, and 4% of the remaining amount if any.
- Subcontractor markup for lower tier Subcontractor Work: For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.
  - Basis of cost applicable for markup: The cost to which overhead is to be applied shall be developed in accordance with Section 7.02B 7.
- (ii) Projects more than \$3 million: For projects where the Contract Award Amount is equal to or exceeds \$3 million, the following shall apply:
  - Contractor markup on Contractor Work: For Contractor, for any Work actually performed by Contractor's own forces, 12% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
  - Subcontractor markup for Subcontractor Work: For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 12% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
  - Contractor markup for Subcontractor Work: For Contractor, for any Work performed by its Subcontractor(s), 4% of the first \$50,000 of the amount due each Subcontractor, and 2% of the remaining amount if any.
  - Subcontractor markup for lower tier Subcontractor Work: For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.
  - Basis of cost applicable for markup: The cost to which overhead is to be applied will be developed in accordance with Section 7.02B 7.

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- (g) Allowance for profit: Allowance for profit is an amount to be added to the cost of any change in contract sum, but not to the cost of change in Contract Time for which contractor has been compensated pursuant to the conditions set forth in Section 7.03. It shall be limited to a reasonable amount, mutually acceptable, or if none can be agreed upon, to an amount not to exceed the rates below:
  - (i) Contractor/Subcontractor markup for self-performed Work: For Contractor or Subcontractor of any tier for work performed by their forces, 6% of the cost developed in accordance with Section 7.02B 7a.-e.
  - (ii) Contractor/Subcontractor markup for Work performed at lower tier: For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, 4% of the subcontract cost developed in accordance with Section 7.02B 7a.-h.
- (h) Insurance and bond premiums: Cost of change in insurance or bond premium. This is defined as:
  - (i) Contractor's liability insurance: The cost of any changes in Contractor's liability insurance arising directly from execution of the Change Order; and
  - (ii) Payment and Performance Bond: The cost of the additional premium for Contractor's bond arising directly from the changed Work.

The cost of any change in insurance or bond premium shall be added after overhead and allowance for profit are calculated in accordance with subparagraph “f.” and “g” above.

**C. Change Order Pricing - Unit Prices**

- 1. Content of Ecology authorization: Whenever Ecology authorizes Contractor to perform Work on a unit-price basis, Ecology's authorization shall clearly state:
  - (a) Scope: Scope of Work to be performed;
  - (b) Reimbursement basis: Type of reimbursement including pre-agreed rates for material quantities, and

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- (c) Reimbursement limit: Cost limit of reimbursement.
  - 2. Contractor responsibilities: Contractor shall:
    - (a) Cooperate with Ecology and assist in monitoring the Work being performed. As requested by Ecology, Contractor shall identify workers assigned to the Change Order Work and areas in which they are working;
    - (b) Leave access as appropriate for quantity measurement; and
    - (c) Not exceed any cost limit(s) without Ecology's prior written approval.
  - 3. Cost breakdown consistent with Fixed Price requirements: Contractor shall submit costs in accordance with paragraph 7.02B and satisfy the following requirements:
    - (a) Unit prices must include overhead, profit, bond and insurance premiums: Unit prices shall include reimbursement for all direct and indirect costs of the Work, including overhead, profit, bond, and insurance costs; and
    - (b) Ecology verification of quantities: Quantities must be supported by field measurement statements signed by Ecology.
- D. Change Order Pricing - Time and Material Prices
- 1. Content of Ecology authorization: Whenever Ecology authorizes Contractor to perform work on a time-and-material basis, Ecology's authorization shall clearly state:
    - (a) Scope: Scope of Work to be performed;
    - (b) Reimbursement basis: Type of reimbursement including pre-agreed rates, if any, for material quantities or labor; and
    - (c) Reimbursement limit: Cost limit of reimbursement.
  - 2. Contractor responsibilities: Contractor shall:
    - (a) Identify workers assigned: Cooperate with Ecology and assist in monitoring the Work being performed. As requested by Ecology, identify workers assigned to the Change Order Work and areas in which they are working;

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- (b) Provide daily timesheets: Identify on daily timesheets all labor performed in accordance with this authorization. Submit copies of daily timesheets within 2 working days for Ecology’s review;
  - (c) Allow Ecology to measure quantities: Leave access as appropriate for quantity measurement;
  - (d) Perform Work efficiently: Perform all Work in accordance with this section as efficiently as possible; and
  - (e) Not exceed Ecology’s cost limit: Not exceed any cost limit(s) without Ecology’s prior written approval.
3. Cost breakdown consistent with Fixed Price requirements: Contractor shall submit costs in accordance with paragraph 7.02B and additional verification supported by:
- (a) Timesheets: Labor detailed on daily timesheets; and
  - (b) Invoices: Invoices for material.

**7.03 CHANGE IN THE CONTRACT TIME**

- A. COP requests for Contract Time: The Contract Time shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Time in its Change Order Proposal.
- B. Time extension permitted if not Contractor’s fault: If the time of Contractor's performance is changed due to an act of Force Majeure, or due to the fault or negligence of Ecology or anyone for whose acts Ecology is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Time in accordance with the following procedure. No adjustment in the Contract Time shall be allowed to the extent Contractor's changed time of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible.
  - 1. Notice and record keeping for Contract Time request: A request for an equitable adjustment in the Contract Time shall be based on written notice delivered within 7 Days of the occurrence of the event-giving rise to the request. If Contractor believes it is entitled to adjustment of Contract Time, Contractor will immediately notify Ecology and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Ecology access to any such record and if requested, shall promptly furnish copies of such record to Ecology.

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2. Timing and content of Contractor's Notice: Contractor shall not be entitled to an adjustment in the Contract Time for any events that occurred more than 7 Days before Contractor's written notice to Ecology. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Time; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible the amount of the adjustment in Contract Time requested. Failure to properly give such written notice shall, to the extent Ecology's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
  3. Contractor to provide supplemental information: Within 30 Days of the occurrence of the event-giving rise to the request, unless Ecology agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph 7.03B.2 with additional supporting data. Such additional data shall include, at a minimum: the amount of delay claimed, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the delay claimed, but that the delay claimed was actually a result of the act, event, or condition complained of, and that the Contract Documents provide entitlement to an equitable adjustment in Contract Time for such act, event, or condition; and supporting documentation sufficiently detailed to permit an informed analysis of the request by Ecology. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Ecology's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
  4. Contractor to proceed with Work as directed: Pending final resolution of any request in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
- C. Contractor to demonstrate impact on critical path of schedule: Any change in the Contract Time covered by a Change Order or based on a request for an equitable adjustment in the Contract Time shall be limited to the change in the critical path of Contractor's schedule attributable to the change of Work or event(s) giving rise to the request for equitable adjustment. Any Change Order Proposal or request for an adjustment in the Contract Time shall demonstrate the impact on the critical path of the schedule. Contractor shall be responsible

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for showing clearly on the Progress Schedule that the change or event: had a specific impact on the critical path, and except in case of concurrent delay, was the sole cause of such impact; and could not have been avoided by resequencing of the Work or other reasonable alternatives.

- D. Cost of change in Contract Time: Contractor may request compensation for the cost of a change in Contract Time in accordance with this paragraph, 7.03D, subject to the following conditions:
1. Must be solely fault of Ecology or A/E: The change in Contract Time shall solely be caused by the fault or negligence of Ecology or A/E;
  2. Procedures: Contractor shall follow the procedure set forth in paragraph 7.03B;
  3. Demonstrate impact on critical path: Contractor shall establish the extent of the change in Contract Time in accordance with paragraph 7.03C; and
  4. Limitations on daily costs: The daily cost of any change in Contract Time shall be limited to the items below, less the amount of any change in the Contract Sum the Contractor may otherwise be entitled to pursuant to Section 7.02B 7f., for any change in the Work that contributed to this change in Contract Time:
    - a. Non-productive supervision or labor: cost of nonproductive field supervision or labor extended because of the delay;
    - b. Weekly meetings and indirect activities: cost of weekly meetings or similar indirect activities extended because of the delay;
    - c. Temporary facilities or equipment rental: cost of temporary facilities or equipment rental extended because of the delay
    - d. Insurance premiums: cost of insurance extended because of the delay;
    - e. Overhead: general and administrative overhead in an amount to be agreed upon, but not to exceed 3% of the Contract Award Amount divided by the originally specified Contract Time for each Day of the delay.

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**PART 8 – CLAIMS AND DISPUTE RESOLUTION**

**8.01 CLAIMS PROCEDURE**

- A. Claim is Contractor's remedy: If the parties fail to reach agreement on the terms of any Change Order for Ecology-directed Work as provided in Section 7.01, or on the resolution of any request for an equitable adjustment in the Contract Sum as provided in Section 7.02 or the Contract Time as provided in Section 7.03, Contractor's only remedy shall be to file a Claim with Ecology as provided in this section.
- B. Claim filing deadline for Contractor: Contractor shall file its Claim within 120 Days from Ecology's final offer made in accordance with paragraph 7.01E, or by the date of Final Acceptance, whichever occurs first.
- C. Claim must cover all costs and be documented: The Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor may be entitled. It shall be fully substantiated and documented. At a minimum, the Claim shall contain the following information:
1. Factual statement of Claim: A detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of Work affected by the Claim;
  2. Dates: The date on which facts arose which gave rise to the Claim;
  3. Ecology and A/E employee's knowledgeable about Claim: The name of each employee of Ecology or A/E knowledgeable about the Claim;
  4. Support from Contract Documents: The specific provisions of the Contract Documents which support the Claim;
  5. Identification of other supporting information: The identification of any documents and the substance of any oral communications that support the Claim;
  6. Copies of supporting documentation: Copies of any identified documents, other than the Contract Documents, that support the Claim;
  7. Details on Claim for Contract Time: If an adjustment in the Contract Time is sought: the specific days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and Contractor's analysis of its Progress Schedule to demonstrate the reason for the extension in Contract Time;

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8. Details on Claim for adjustment of Contract Sum: If an adjustment in the Contract Sum is sought, the exact amount sought and a breakdown of that amount into the categories set forth in, and in the detail as required by Section 7.02; and
  9. Statement certifying Claim: A statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes Ecology is liable.
- D. Ecology's response to Claim filed: After Contractor has submitted a fully documented Claim that complies with all applicable provisions of Parts 7 and 8, Ecology shall respond, in writing, to Contractor as follows:
1. Response time for Claim less than \$50,000: If the Claim amount is less than \$50,000, with a decision within 60 Days from the date the Claim is received; or
  2. Response time for Claim of \$50,000 or more: If the Claim amount is \$50,000 or more, with a decision within 60 Days from the date the Claim is received or, with notice to Contractor, of the date by which it will render its decision. Ecology will then respond with a written decision in such additional time.
- E. Ecology's review of Claim and finality of decision: To assist in the review of Contractor's Claim, Ecology may visit the Project site or request additional information, in order to fully evaluate the issues raised by the Claim. Contractor shall proceed with performance of the Work pending final resolution of any Claim. Ecology's written decision, as set forth above, shall be final and conclusive as to all matters set forth in the Claim, unless Contractor follows the procedure set forth in Section 8.02.
- F. Waiver of Contractor's rights for failure to comply with this Section: Any Claim of the Contractor against Ecology for damages, additional compensation, or additional time shall be conclusively deemed to have been waived by the Contractor unless made in accordance with the requirements of this section.



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**8.02 ARBITRATION**

- A. Timing of Contractor’s demand for arbitration: If Contractor disagrees with Ecology’s decision rendered in accordance with paragraph 8.01D, Contractor shall provide Ecology with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than 30 Days after the date of Ecology’s decision on such Claim; failure to demand arbitration within said 30 Day period shall result in Ecology’s decision being final and binding upon Contractor and its Subcontractors.
- B. Filing of Notice for arbitration: Notice of the demand for arbitration shall be filed with the American Arbitration Association (AAA), with a copy provided to Ecology. The parties shall negotiate or mediate under the Voluntary Construction Mediation Rules of the AAA, or mutually acceptable service, before seeking arbitration in accordance with the Construction Industry Arbitration Rules of AAA as follows:
  - 1. Claims less than \$30,000: Disputes involving \$30,000 or less shall be conducted in accordance with the Northwest Region Expedited Commercial Arbitration Rules; or
  - 2. Claims greater than \$30,000: Disputes over \$30,000 shall be conducted in accordance with the Construction Industry Arbitration Rules of the AAA, unless the parties agree to use the expedited rules.
- C. Arbitration is forum for resolving Claims: All Claims arising out of the Work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the superior court having jurisdiction thereof. No independent legal action relating to or arising from the Work shall be maintained.
- D. Ecology may combine Claims into same arbitration: Claims between Ecology and Contractor, Contractor and its Subcontractors, Contractor and A/E, and Ecology and A/E shall, upon demand by Ecology, be submitted in the same arbitration or mediation.
- E. Settlement outside of arbitration to be documented in Change Order: If the parties resolve the Claim prior to arbitration judgment, the terms of the resolution shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of the Claim, including all claims for time and for direct, indirect, or consequential costs including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity.

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**8.03 CLAIMS AUDITS**

- A. Ecology may audit Claims: All Claims filed against Ecology shall be subject to audit at any time following the filing of the Claim. Failure of Contractor, or Subcontractors of any tier, to maintain and retain sufficient records to allow Ecology to verify all or a portion of the Claim or to permit Ecology access to the books and records of Contractor, or Subcontractors of any tier, shall constitute a waiver of the Claim and shall bar any recovery.
- B. Contractor to make documents available: In support of Ecology audit of any Claim, Contractor shall, upon request, promptly make available to Ecology the following documents:
1. Daily time sheets and supervisor's daily reports;
  2. Collective bargaining agreements;
  3. Insurance, welfare, and benefits records;
  4. Payroll registers;
  5. Earnings records;
  6. Payroll tax forms;
  7. Material invoices, requisitions, and delivery confirmations;
  8. Material cost distribution worksheet;
  9. Equipment records (list of company equipment, rates, etc.);
  10. Vendors', rental agencies', Subcontractors', and agents' invoices;
  11. Contracts between Contractor and each of its Subcontractors, and all lower-tier Subcontractor contracts and supplier contracts;
  12. Subcontractors' and agents' payment certificates;
  13. Cancelled checks (payroll and vendors);
  14. Job cost report, including monthly totals;
  15. Job payroll ledger;
  16. Planned resource loading schedules and summaries;
  17. General ledger;
  18. Cash disbursements journal;

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19. Financial statements for all years reflecting the operations on the Work. In addition, Ecology may require, if it deems it appropriate, additional financial statements for 3 years preceding execution of the Work;
  20. Depreciation records on all company equipment, whether these records are maintained by the company involved, its accountant, or others;
  21. If a source other than depreciation records is used to develop costs for Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents;
  22. All nonprivileged documents which relate to each and every Claim together with all documents which support the amount of any adjustment in Contract Sum or Contract Time sought by each Claim;
  23. Worksheets or software used to prepare the Claim establishing the cost components for items of the Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, all documents which establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals; and
  24. Worksheets, software, and all other documents used by Contractor to prepare its bid.
- C. Contractor to provide facilities for audit and shall cooperate: The audit may be performed by employees of Ecology or a representative of Ecology. Contractor and its Subcontractors, shall provide adequate facilities acceptable to Ecology for the audit during normal business hours. Contractor, and all Subcontractors, shall make a good-faith effort to cooperate with Ecology's auditors.

**PART 9 TERMINATION OF THE WORK**

**9.01 TERMINATION BY ECOLOGY FOR CAUSE**

- A. 7 Day Notice to Terminate for Cause: Ecology may, upon 7 Days written notice to Contractor and to its surety, terminate (without prejudice to any right or remedy of Ecology) the Work, or any part of it, for cause upon the occurrence of any one or more of the following events:
1. Contractor fails to prosecute Work: Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Substantial Completion of the Work within the Contract Time;

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2. Contractor bankrupt: Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency;
  3. Contractor fails to correct Work: Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;
  4. Contractor fails to supply workers or materials: Contractor repeatedly fails to supply skilled workers or proper materials or equipment;
  5. Contractor failure to pay Subcontractors or labor: Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor;
  6. Contractor violates laws: Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
  7. Contractor in material breach of Contract: Contractor is otherwise in material breach of any provision of the Contract Documents.
- B. Ecology's actions upon termination: Upon termination, Ecology may at its option:
1. Take possession of Project site: Take possession of the Project site and take possession of or use all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to maintain the orderly progress of, and to finish, the Work;
  2. Accept assignment of Subcontracts: Accept assignment of subcontracts pursuant to Section 5.20; and
  3. Finish the Work: Finish the Work by whatever other reasonable method it deems expedient.
- C. Surety's role: Ecology's rights and duties upon termination are subject to the prior rights and duties of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.
- D. Contractor's required actions: When Ecology terminates the Work in accordance with this section, Contractor shall take the actions set forth in paragraph 9.02B, and shall not be entitled to receive further payment until the Work is accepted.
- E. Contracts to pay for unfinished Work: If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for A/E's services and expenses made necessary thereby and any other extra costs or

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damages incurred by Ecology in completing the Work, or as a result of Contractor's actions, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Ecology. These obligations for payment shall survive termination.

- F. Contractor and Surety still responsible for Work performed: Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.
- G. Conversion of “Termination for Cause” to “Termination for Convenience”: If Ecology terminates Contractor for cause, and it is later determined that none of the circumstances set forth in paragraph 9.01A exist, then such termination shall be deemed a termination for convenience pursuant to Section 9.02.

**9.02 TERMINATION BY ECOLOGY FOR CONVENIENCE**

- A. Ecology Notice of Termination for Convenience: Ecology may, upon written notice, terminate (without prejudice to any right or remedy of Ecology) the Work, or any part of it, for the convenience of Ecology.
- B. Contractor response to termination Notice: Unless Ecology directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:
  - 1. Cease Work: Stop performing Work on the date and as specified in the notice of termination;
  - 2. No further orders or Subcontracts: Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated;
  - 3. Cancel orders and Subcontracts: Cancel all orders and subcontracts, upon terms acceptable to Ecology, to the extent that they relate to the performance of Work terminated;
  - 4. Assign orders and Subcontracts to Ecology: Assign to Ecology all of the right, title, and interest of Contractor in all orders and subcontracts;
  - 5. Take action to protect the Work: Take such action as may be necessary or as directed by Ecology to preserve and protect the Work, Project site, and any other property related to this Project in the possession of Contractor in which Ecology has an interest; and

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- 6. Continue performance not terminated: Continue performance only to the extent not terminated.
- C. Terms of adjustment in Contract Sum if Contract terminated: If Ecology terminates the Work or any portion thereof for convenience, Contractor shall be entitled to make a request for an equitable adjustment for its reasonable direct costs incurred prior to the effective date of the termination plus a reasonable allowance for overhead and profit on Work performed prior to termination, plus the reasonable administrative costs of the termination, but shall not be entitled to any other costs or damages, whatsoever, provided however, the total sum payable upon termination shall not exceed the Contract Sum reduced by prior payments. Contractor shall be required to make its request in accordance with the provisions of Part 7 - CHANGES.
- D. Ecology to determine whether to adjust Contract Time: If Ecology terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Ecology.

**PART 10 – MISCELLANEOUS PROVISIONS**

**10.01 GOVERNING LAW**

Applicable law and venue: The Contract Documents and the rights of the parties herein shall be governed by the laws of the State of Washington. Venue shall be in Thurston County, Ecology's principal place of business is located, unless otherwise specified by Ecology.

**10.02 SUCCESSORS AND ASSIGNS**

Bound to successors; Assignment of Contract: Ecology and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party shall assign the Work without written consent of the other, except that Contractor may assign the Work for security purposes, to a bank or lending institution authorized to do business in the state of Washington. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations set forth in the Contract Documents.

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**10.03 MEANING OF WORDS**

Meaning of words used in Specifications: Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall be to the latest standard specification, manual, or code in effect on the date for submission of bids, except as may be otherwise specifically stated. Wherever in these Drawings and Specifications an article, device, or piece of equipment is referred to in the singular manner, such reference shall apply to as many such articles as are shown on the drawings, or required to complete the installation.

**10.04 RIGHTS AND REMEDIES**

No waiver of rights: No action or failure to act by Ecology or A/E shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall action or failure to act constitute approval or an acquiescence in a breach therein, except as may be specifically agreed in writing.

**10.05 CONTRACTOR REGISTRATION**

Contractor must be registered or licensed: Pursuant to RCW 39.06, Contractor shall be registered or licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27.

**10.06 TIME COMPUTATIONS**

Computing time: When computing any period of time, the day of the event from which the period of time begins shall not be counted. The last day is counted unless it falls on a weekend or legal holiday, in which event the period runs until the end of the next day that is not a weekend or holiday. When the period of time allowed is less than 7 days, intermediate Saturdays, Sundays, and legal holidays are excluded from the computation.

**10.07 RECORDS RETENTION**

Six year records retention period: The wage, payroll, and cost records of Contractor, and its Subcontractors, and all records subject to audit in accordance with Section 8.03, shall be retained for a period of not less than 6 years after the date of Final Acceptance.

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**10.08 THIRD-PARTY AGREEMENTS**

No third party relationships created: The Contract Documents shall not be construed to create a contractual relationship of any kind between: A/E and Contractor; Ecology and any Subcontractor; or any persons other than Ecology and Contractor.

**10.09 ANTITRUST ASSIGNMENT**

Contractor assigns overcharge amounts to Ecology: Ecology and Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, Contractor hereby assigns to Ecology any and all claims for such overcharges as to goods, materials, and equipment purchased in connection with the Work performed in accordance with the Contract Documents, except as to overcharges which result from antitrust violations commencing after the Contract Sum is established and which are not passed on to Ecology under a Change Order. Contractor shall put a similar clause in its Subcontracts and require a similar clause in its sub-Subcontracts, such that all claims for such overcharges on the Work are passed to Ecology by Contractor.

**10.10 HEADINGS AND CAPTIONS**

Headings for convenience only: All headings and captions used in these General Conditions are only for convenience of reference, and shall not be used in any way in connection with the meaning, effect, interpretation, construction, or enforcement of the General Conditions, and do not define the limit or describe the scope or intent of any provision of these General Conditions.

**10.11 DIVERSE BUSINESS PARTICIPATION**

The state of Washington encourages participation in all of its contracts by Diverse Businesses as found in RCW Chapters 39, 43, and WAC 326. The voluntary Diverse Business goal of 26%, which is an aggregate of: 10% Minority Business Enterprises (MBE), 6% Women Business Enterprises

(WBE), 5% Veteran-owned Business, and 5% Washington Small Businesses self-identified in the Washington Electronic Business Solution (WEBS). Contractors are encouraged to meet or exceed the project goals in the advertisement by any level of participation, regardless of category.

Ecology reserves the right to adjust the voluntary participation goals.



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Businesses are encouraged to register in WEBS, as well as registering as a state certified M/WBE/Veteran Business.

Every month for the duration of the contract, and while the contract is active in Ecology's fiscal system, Contractor shall submit and accurately maintain the following information:

1. Payments received by the prime contractor from the Agency
2. Payments paid to each first tier subcontractor
3. Payments paid to each first tier supplier

Contractor shall also ensure the following information is reported to Ecology by the first tier subcontractors and suppliers for the duration of your contract:

1. Confirmation of payments from the prime contractor to the first tier subcontractor
2. Confirmation of payments from the prime contractor to first tier suppliers

**10.12 MINIMUM LEVELS OF APPRENTICESHIP PARTICIPATION**

In accordance with RCW 39.04.320, the State of Washington requires 15% apprenticeship participation for projects estimated to cost one million dollars or more. Contractors who meet or exceed minimum participation requirement are eligible for monetary incentive. Contractors failing to meet minimum apprenticeship participation requirement are subject to monetary penalty.

- A. Apprentice participation, under this contract, may be counted towards the required percentage (%) only if the apprentices are from an apprenticeship program registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-05).
- B. Bidders may contact the Department of Labor and Industries to obtain more information about apprenticeship programs.
- C. No changes to the required percentage (%) of apprentice participation shall be allowed without written approval of Ecology. In any request for the change, the Contractor shall clearly demonstrate a good faith effort to comply with the requirements for apprentice participation.
- D. Any substantive violation of the mandatory requirements of this part of the contract may be a material breach of the contract by the Contractor. Ecology

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may withhold payment pursuant to Part 6.05, stop the work for cause pursuant to Part 3.04, and terminate the contract for cause pursuant to Part 9.01.

**10.13 – SPECIAL CONDITIONS**

Ecology may have Federal Funding or other special requirements for this project. If applicable, the Contractor will be required to comply with the “DIVISION 00, SPECIAL CONDITIONS” section in the specifications that will be based on the specific requirements of the funding source.

**END OF SECTION 00 72 00**

**SECTION 00 73 19**  
**HEALTH AND SAFETY REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work.
- B. In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to property, materials, supplies, and equipment, whether on Site or stored off Site; and prevent damage to other property at the Site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property, or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of adjacent property and utilities when prosecution of the Work may affect them.
- C. Nothing provided in this Section shall be construed as imposing any duty upon Ecology or Engineer with regard to, or as constituting any express or implied assumption of control or responsibility over Project Site safety, or over any other safety conditions relating to employees or agents of the Contractor or any of its Subcontractors, or the public.
- D. COVID-19. Meet Construction COVID-19 Job Site Requirements per **Section 00 73 00 - Supplementary Conditions**.

**1.02 RELATED SECTIONS**

- A. Comply with the more stringent of any requirements contained herein or in the following Sections:
  - 1. Section 00 72 00 - General Conditions, 5.07 - Safety Precautions
  - 2. Section 00 73 00 - Supplemental Conditions (COVID Safety Plan)
  - 3. Section 01 35 29.13 - Health, Safety, and Emergency Response Procedures for Contaminated Sites
  - 4. Section 02 61 13 - Excavation and Handling of Contaminated Material

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**  
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**1.03 SUBMITTALS**

- A. Project and Work Site-specific Health and Safety Plan (HASP): The Contractor shall Prepare a HASP in accordance with OSHA 29 CFR 1910.120 and all applicable Washington State regulations and submit to Ecology by the due date in **Table 01 33 00-1**. Ecology or its representatives will not review the Health and Safety Plan for completeness or compliance with regulations.
1. This HASP shall be prepared and signed by the Contractor's Site Safety and Health Officer with both 40-hour HAZWOPER and 24-hour supervisor training (**Section 01 35 29.13**). The Appendix to the plan shall include copies of site worker's HAZWOPER training certificate (for those it is required) meeting OSHA 29 CFR 1910.120 and a certificate of a refresher course taken within the prior calendar year.
  2. Contractor's HASP shall contain all information as required by law, and, at a minimum, the information identified in "Personnel Disclosure, Training, and Competent Person" Section herein.

**1.04 PERSONNEL DISCLOSURE, TRAINING, AND COMPETENT PERSON**

- A. Contractor shall provide all persons working on the Project Site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.
- B. Disclosure/Orientation: At a minimum, Contractor shall inform persons working on the Project Site of:
1. The requirements of Chapter 296-62 WAC, General Occupational Health Standards.
  2. Any operations in their work area where hazardous chemicals are present.
    - a. The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and Safety Data Sheets (SDS) required by Chapter 296-901 WAC Globally Harmonized System For Hazard Communication.
- C. Training: At a minimum, Contractor shall provide training for persons working on the Project Site, which includes:
1. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).
  2. The physical and health hazards of the chemicals in the work area.
  3. The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or

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**SECTION 00 73 19 – HEALTH AND SAFETY REQUIREMENTS**

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others have implemented to protect those on the Project Site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

- D. The details of the hazard communication program developed by the Contractor or its Subcontractors, including an explanation of the labeling system and the SDS, and how employees can obtain and use the appropriate hazard information.
- E. Contractor shall provide a competent person designated as the Site Safety and Health Officer, who is thoroughly trained in rescue procedures, HAZWOPER, and the use of all necessary safety equipment, air monitoring equipment, and gas detectors. The person must be present at all times while work is being performed and conduct testing, as necessary.
  - 1. The Contractor's Site Safety and Health Officer or designee shall conduct inspections of the Site in accordance with the HASP to determine the HASP's effectiveness and shall immediately correct any deficiencies identified.
  - 2. The Site Safety and Health Officer shall be empowered with the delegated authority to order any person or worker on the Project Site to follow the safety rules. Failure to observe these rules is sufficient cause for removal of the person or worker(s) from this project.
  - 3. The Site Safety and Health Officer is responsible for determining the extent to which any safety equipment must be utilized, depending on conditions encountered at the Site.

**1.05 EXPOSURE AND SAFETY MANAGEMENT**

- A. Contractor shall implement a safety program as required by law and as stated in the Contractor's Project and Work Site HASP.
- B. Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:
  - 1. Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project Site any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state, or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances"), in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 calendar days on the Project Site.
  - 2. Contractor shall promptly notify Ecology of all spills or releases of any hazardous substances, and shall report any spills or releases required to be reported to any regulatory agency and pay the cost of cleanup. Contractor shall promptly notify Ecology of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project Site by any

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regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project Site.

- C. All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- D. The Contractor shall furnish, erect, and maintain such fences, barriers, lights, and signs and provide such flagging and guards as are necessary in the opinion of Ecology to give adequate warning to the public of the construction and of any dangerous condition which may be encountered as a result thereof.

**1.06 EMERGENCIES**

- A. In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.
- B. Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, Property Owner(s), Tenant(s), pets owned by Property Owner(s) and/or Tenant(s), materials, supplies, or equipment. Contractor shall immediately report any such incident to Ecology. Ecology shall, at all times, have a right of access to all records of exposure.

**PART 2 - PRODUCTS**

**2.01 PRODUCTS SPECIFIED FOR HEALTH AND SAFETY**

- A. Provide the equipment and supplies necessary to support the work as described in the site-specific HASP. Equipment and supplies as needed may include but are not limited to:
  - 1. Hazardous materials inventory and SDSs for the chemicals brought on Site;
  - 2. Enclosure equipment (for dust control as needed);
  - 3. Fencing and barriers;
  - 2. Warning signs and labels;
  - 3. Fire extinguishers and equipment to support open flame or spark producing "hot" work;
  - 4. Equipment to support lockout/tag-out procedures;
  - 5. Fall protection equipment;

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6. Personal protective equipment (including, but not limited to, hard hats, foot gear, personal flotation devices, hand, skin, eye, ear, and respiratory protection);
  7. Area and personnel exposure monitoring equipment;
  8. Water rescue equipment;
  9. Decontamination equipment and supplies;
  10. First aid equipment;
  11. Release prevention equipment; and
  12. Field documentation logs/supplies.
  13. Temporary sanitation facilities.
- B. The Contractor's HASP shall be amended as needed to include special work practices warranted by Site conditions actually encountered.
- C. The Contractor shall maintain a copy of the HASP on each site at all times.

**PART 3 - EXECUTION**

**3.01 HASP REQUIREMENTS AND IMPLEMENTATION**

- A. As a minimum, the site-specific HASP shall set forth definite procedures for informing workers about health and safety, for instructing workers in safe practices, for assuring that workers are using appropriate safety equipment and safe work practices and for reporting accidents. Also include:
1. Description of work to be performed and anticipated chemical and/or physical hazards associated with the work.
  2. A series of maps of the site illustrating the locations of anticipated hazards and areas of control for those hazards.
  3. Hazardous material inventory and SDSs for all chemicals which will be brought on site.
  4. Engineering controls/equipment to be used to protect against anticipated hazards.
  5. Personal protective equipment and clothing including head, foot gear, personal flotation devices, hand, skin, eye, ear and respiratory protection.
  6. Procedures which will be used for:
    - a. Lockout/tagout;
    - b. Fall protection;
    - c. Water rescue;

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- d. Hazards;
- e. Suspect materials;
- 7. Odorous conditions and toxic gases.
- 8. Exposure monitoring to be used to evaluate actual hazards compared with anticipated conditions.
- 9. Site housekeeping procedures and personal hygiene practices.
- 10. Personnel and equipment decontamination plan.
- 11. Administrative controls.
- 12. Emergency plan, including:
  - a. Locations of and route to nearest hospital.
  - b. Locations of first aid kits, fire extinguishers, and portable eye washes.
  - c. Person who will be responsible in the event of an emergency.
  - d. Site personnel trained in first aid and/or CPR.
- 13. Medical surveillance program for site personnel before, during, and after completion of site work.
- 14. Name and qualifications of person preparing the HASP and person designated to implement and enforce the plan.
- 15. Signatory page for site personnel and visitors to acknowledge receipt, understanding, and agreement to comply with the plan.
- B. Implement the accepted Health and Safety plan as written, and notify Ecology promptly regarding deviations from the plan. Update plan as required during the project and promptly notify Ecology of revisions.
- C. This health and safety plan must be followed by the Contractor and a minimum of one (1) copy shall always be available and accessible at the site when Work is occurring.
  - 1. Where Work is being performed in different areas of the overall Project Site, multiple copies of the health and safety plan shall be available and accessible to Contractor personnel in each of those areas.

**END OF SECTION 00 73 19**



**SECTION 01 10 00  
SUMMARY**

**PART 1 - GENERAL**

**1.01 SUMMARY OF WORK**

A. This project remediates soils contaminated with arsenic from operations of the former Asarco Smelter, at thirty-eight (38) single-family residential properties in north Everett, Snohomish County, Washington, shown in the Contract Drawings. All work is outdoors. Work at each property typically includes implementing temporary construction controls for environmental protections, selective demolition or temporary removal of site features, excavating soils contaminated with arsenic; disposing of excavated soils at an approved landfill; importing clean fill material; backfilling with imported material, compacting, and grading; restoring properties to preconstruction conditions; and landscape and lawn restoration and maintenance, all in accordance with the requirements of the Project Manual.

B. Project Location: The Project location for contaminated soils remediation comprises the areas identified in the Contract Drawings. These Properties are all located in Everett, Snohomish County, Washington.

1. The addresses, Snohomish County Tax Parcel numbers, and names of Property Owners for each Property are provided in the Contract Drawings. The addresses are provided below:

01178500000100	3121 8th ST UNIT A
01178500000200	3121 8TH ST UNIT B
00612300000800	3110 8TH ST
29050800400900	702 E MARINE VIEW DR
00396600000600	3016 BUTLER ST
29051700102800	724 E MARINE VIEW DR
29051700103000	728 E MARINE VIEW DR
29051700102900	720 E MARINE VIEW DR
29051700101900	802 E MARINE VIEW DR
29051700101800	812 E MARINE VIEW DR
00438719200004	1002 E MARINE VIEW DR
00438719200007	1018 E MARINE VIEW DR
00438719200001	1020 E MARINE VIEW DR

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00438719200009	1024 E MARINE VIEW DR
00438719200002	1032 E MARINE VIEW DR
00438719200003	1001 MAPLE ST
00438719200014	1005 MAPLE ST
00438719200017	1011 MAPLE ST
00438719200015	1015 MAPLE ST
00438719200012	1017 MAPLE ST
00438719200016	1019 MAPLE ST
00438719200010	1027 MAPLE ST
00438719200011	1031 MAPLE ST
00438718802400	918 MAPLE ST
00438719303300	1002 MAPLE ST
00438719303000	1008 MAPLE ST
00438719302300	1022 MAPLE ST
00438719302100	1026 MAPLE ST
00438719301900	1028 MAPLE ST
00438718800900	913 PINE ST
00438718801200	925 PINE ST
00438718801500	2905 10TH ST
00438719300500	1005 PINE ST
00438719300700	1007 PINE ST
00438719300900	1009 PINE ST
00438719301100	1011 PINE ST
00438719301300	1013 PINE ST
00438719301700	Vacant Pine St Lot

**1.02 BACKGROUND**

- A. The Everett Smelter Site is a portion of northeast Everett with soil contaminated by arsenic, lead, and other metals. The contamination was caused by emissions from the Everett Smelter between 1894 and 1912 and by material left behind when the smelter was demolished between 1912 and 1915.

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- B. The cleanup is designed to reduce the risks to human health and the environment associated with soils contaminated with arsenic, lead, and other metals in the Upland Area of northeast Everett. Contaminated soils in the residential communities raise health concerns because of, among other concerns, the potential for ingestion by children in the course of their normal activities in residential yards.

**1.03 RELATED SECTIONS**

- A. See Section 00 11 16 - Invitation for Bid for Substantial and Final Completion requirements.
- B. See Section 00 11 16 - Invitation for Bid for liquidated and actual damage requirements.
- C. See Section 01 14 13 - Access to Site for information regarding access agreements to the Project Site(s).

**1.04 SUBMITTALS**

- A. Notice: Advanced notice of excavation activities.
- B. Property-specific work schedule.
- C. Weekly schedule updates.

**1.05 TIME FOR COMPLETION**

- A. Contract Time and Substantial Completion: See **Section 00 11 16 – Invitation for Bid** for contract time and substantial completion. See **Section 01 77 00 – Closeout Procedures** for Substantial Completion requirements.
  - 1. Weekends and legal holidays work restrictions are accounted for and included in the contract time allowed for this Project.
- B. Final Completion: The Contractor shall achieve Final Completion as described in Section 00 11 16 – Invitation for Bid. See **Section 01 77 00 – Closeout Procedures** for Final Completion requirements.

**1.06 EXISTING CONDITIONS**

- A. See **Contract Drawings (Appendix A01)** for approximate depiction of existing conditions, site features, and proposed cleanup.

**1.07 PROPERTY ACCESS**

- A. Ecology has acquired access agreements to the Project Site to facilitate the construction indicated on the Contract Drawings.

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**SECTION 01 10 00 - SUMMARY**

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- B. It is the Contractor's responsibility to obtain, at its expense, any additional area it requires and not previously identified by Ecology for use for the storage of materials, vehicles, temporary buildings, or similar requirements.
- C. Contractor shall make the final determination of access routes, subject to approval by Ecology. Contractor shall provide protective measures to protect all features, utilities, and existing structures.
- D. All access and staging areas shall be protected from cross-contamination or contamination during material loading, or from other causes.

**1.08 NOTIFICATION OF WORK AND WORK SCHEDULE**

- A. Provide Ecology five (5) working days advance notice before beginning excavation work.
- B. At time of notice, prior to commencing construction on each property, provide Ecology a property-specific work schedule covering all work elements for each property, including boundary survey, pre-construction survey, existing conditions assessment, site preparation, fencing installation, Temporary Erosion and Sediment Control (TESC) measure installation, excavation, Ecology testing period, post-excavation survey, backfill, installation of finishes, irrigation system testing, utility work and outages, final restoration, post-restoration survey, seeding/sodding, fencing removal, cleanup, and site maintenance. Provide the schedule as a 1-page electronic PDF file with activities and dates clearly indicated in simple format suitable for providing to property owner. Include site address, and Ecology and Contractor project representatives contact name and contact information.
- C. Provide weekly schedule updates per **Section 00 72 00 - General Conditions**.
- D. Surveying must be completed, and documentation submitted two (2) working days prior to beginning excavation.

**1.09 PROJECT WORK HOURS / NOISE**

- A. General: The Contractor shall determine their work schedule for completing the work at the various properties under the following conditions:
  - 1. Working Days, Hours, and Noise:
    - a. Weekdays only (Monday through Friday). Work is permitted during weekends or legal holidays as defined by the State of Washington Department of Revenue, but the Contractor must notify the City in advance of such work. Project work on weekends, if necessary, requires prior written approval from Ecology.
    - b. Equipment operation only between the hours as allowed by City noise ordinances.

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**1.10 CULTURAL RESOURCES**

A. See **Section 01 35 04 - Cultural Resource Procedures** for requirements.

**1.11 PROJECT DRAWINGS**

A. Contract Drawings - **See Appendix A01.**

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 10 00**

**SECTION 01 11 13**  
**WORK COVERED BY CONTRACT DOCUMENTS**

**PART 1 - GENERAL**

**1.01 SUMMARY**

This project remediates soils contaminated with arsenic from operations of the former Asarco Smelter, at single-family residential properties at the project location noted below. Work at each property generally includes selective demolition of exterior features, excavating and disposing excavated contaminated soil at an approved landfill, backfilling/compacting imported fill, restoring properties (site features, landscaping, lawn, etc.) to preconstruction conditions, and temporary maintenance of vegetation in accordance with the Project Manual. See **Section 01 10 00 - Summary** for a more extensive description of work.

**1.02 SECTION INCLUDES**

GENERAL: The following list of major items of work for this project has been included for Bidder's convenience in preparing a bid proposal. Exclusion of items from this summary does not indicate exclusion from the project. For lump sum items, where no quantities are provided, the bidder is cautioned that the Contract Drawings are the only pre-construction source for measurement of project quantities. Construction includes pre-construction survey (**Section 01 71 23 - Field Engineering**) and existing conditions inventory (**Section 02 22 00 - Existing Conditions Assessment**). In preparing a bid proposal, Bidder should note apparent discrepancies or omissions between the list below and the Contract Drawings and consult with Ecology for verification.

TRENCH EXCAVATION SAFETY PROVISIONS: If the bid amount contains any work which requires trenching exceeding a depth of 4 feet, all costs for trench safety shall be included in the Total Base Bid and indicated on the Bid Proposal for adequate trench safety systems in compliance with Chapters 39.04 RCW, 49.17 RCW, and WAC 296-155-650. **Bidder must include a lump sum dollar amount in the blank on the Bid Proposal (even if the value is \$0.00) to be responsive.**

**1.03 PRICE AND PAYMENT PROCEDURES**

**TOTAL BASE BID**

**The following is a breakdown of work included in the Total Base Bid for “Everett Smelter Uplands Residential 2020 Cleanup Group”**

The **Total Base Bid** is a lump sum bid amount that includes all costs, including overhead and profit, for the bidder to provide all labor, materials, and equipment necessary for the remediation

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of contaminated soil, site restoration, and/or landscaping of the twenty (20) properties, as specified in the Project Manual, including, but not limited to, the activities described in A. through I, below.

Within the breakdown of work for the **Total Base Bid**, ECOLOGY provides basis of bid quantities for specific items of work for bidders to use in the preparation of their bids for this project. The basis of bid quantities are estimated quantities for the work described for all bidders to use. After contract award, as work progresses on the project, there may be underruns or overruns in the basis of bid quantities provided by ECOLOGY, which result in an adjustment (either an increase or decrease) to the contract amount. This adjustment to the contract amount due to changes in the basis of bid quantities will be negotiated in accordance with **Section 00 72 00 - General Conditions, Part 7 - Changes**.

Upon contract award, Items A. through I. will be the basis of developing the project's Schedule of Values.

**A. MOBILIZATION AND DEMOBILIZATION**

1. MOBILIZATION/DEMOBILIZATION shall be a lump sum amount in the project's Schedule of Values and is full compensation, including overhead and profit, for providing all preparatory work and operations, including, but not limited to, those necessary for moving equipment, supplies, and incidentals to and removing them from the project site. This item also includes any required site preparation associated with excavating, transporting, or placing material.
  - a. Mobilization/demobilization in the project's Schedule of Values shall not exceed 8 percent of the amount of the Total Base Bid.
  - b. Mobilization/demobilization will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of actual construction completed at the time of the payment estimate.
  - c. Mobilization/demobilization payment in the first progress payment shall not exceed 50 percent for this item.

**B. GENERAL REQUIREMENTS**

1. GENERAL REQUIREMENTS shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, for all costs associated with project administration, supervision, coordination of the Contractor's, subcontractors', and suppliers' work; bonding, insurance, etc.; coordination and meetings with Ecology; and the development, submittal, and implementation of required work plans and other required submittals, all as specified in **Division 00** and **Division 01** of the Project Manual that are not identified as a separate pay item in the project's Schedule of Values. Work includes, but is not limited to:

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- a. Prepare and submit all required project work plans identified in the Project Manual (especially Table 01 33 00-1). Implement and maintain plans until final completion.
  - b. Maintain properties and all work areas free of debris and hazards as a result of work activities.
  - c. Complete other miscellaneous items of construction.
  - d. Complete all notices, schedules, and other coordination with Ecology and property owners to keep Ecology fully informed regarding project activities and schedules.
  - e. Obtain Ecology's approval of work stages as specified.
  - f. Complete project and property-specific close-out notifications and procedures as indicated.
2. GENERAL REQUIREMENTS will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of work completed under this item at the time of the payment estimate.

**C. HEALTH AND SAFETY**

1. HEALTH AND SAFETY shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, for the cost of labor, tools, equipment, materials, and incidentals necessary to meet the requirements of the health and safety provisions for all work completed on the project and any other project work sites required by the Health and Safety Plan (HASP) specified in **Section 00 73 19 - Health and Safety Requirements** and related sections noted therein. Work under this item includes, but is not limited to, the following:
  - a. HASP
    - 1) Provide HASP that meets Washington State Department of Labor and Industries (L&I) requirements and is prepared in accordance with **Section 00 73 19 - Health and Safety Requirements**.
    - 2) Provide Personnel Dust Exposure Control Plan that includes a personnel air monitoring exposure assessment.
    - 3) Provisions necessary per L&I to meet Arsenic and Lead Rule.
    - 4) Provisions necessary for Work in close proximity to Property Owners, Tenants, their families, and their residences.
  - b. HASP Implementation and Monitoring
    - 1) Implement HASP monitoring.
    - 2) Submit monitoring results to Ecology (paper and electronic).
    - 3) Maintenance of safe and reasonable access to property residential buildings for Property Owners and Tenants.



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- 4) Maintain safe and secure working areas to prevent accidental intrusion of children or animals while Work is being performed on each property.
  - 5) Investigation of HASP incidents by Contractor's Site Safety and Health Officer and report to Ecology, when necessary.
  - 6) Provide and maintain temporary facilities, including decontamination stations and other facilities.
- c. HASP Reporting and Closeout
- 1) Closeout documents to Ecology and as required to L&I.
- d. Other miscellaneous items of health and safety.
2. HEALTH AND SAFETY will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of work completed under this item at the time of the payment estimate.

**D. PREPARATORY REQUIREMENTS FOR THE PROJECT**

1. PREPARATORY REQUIREMENTS shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, for the cost of labor, tools, equipment, materials, and incidentals necessary to prepare requirements for the project before commencing site work that includes, but is not limited to:
  - a. Installation of all temporary erosion and sediment control (TESC) measures.
  - b. Locate utilities and maintain record drawings of all utility locates.
  - c. Establish construction access and material and equipment staging areas.
  - d. Obtain and comply with all project-related permits noted in **Section 01 41 00 - Regulatory Requirements**.
  - e. Protect existing structures and features.
  - f. Complete other work as indicated.
2. PREPARATORY REQUIREMENTS will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of work completed under this item at the time of the payment estimate.

**E. FIELD ENGINEERING**

1. FIELD ENGINEERING/SITE SURVEYS shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, to provide all labor, tools, equipment, materials, and incidentals required for conducting site pre-construction, progress, and post-construction surveys as shown on the Contract Drawings and described in **Section 01 71 23 - Field Engineering**.

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2. FIELD ENGINEERING will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of actual work completed under this item at the time of the payment estimate.

#### **F. EXCAVATION, TRANSPORTATION, AND OFF-SITE DISPOSAL**

1. Payment for this item will be based on completion of excavating impacted soil as described in **Section 31 23 16 - Excavation, Section 02 61 13 - Excavation and Handling of Contaminated Material**, other Specifications, and shown on the Contract Drawings.
2. EXCAVATION, TRANSPORTATION, AND OFF-SITE DISPOSAL shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, to provide all labor, tools, equipment, materials, and incidentals required to excavate and remove contaminated soil at the site.
  - a. This pay item includes material excavation, handling, rehandling, loading, pre-disposal management, transportation, and off-site disposal costs/tipping fees.
  - b. Material is assumed to be characterized as non-hazardous impacted soil.
  - c. The Basis of Bid quantity for EXCAVATION, TRANSPORTATION, AND OFF-SITE DISPOSAL is the EXCAVATION in place volume of about 6,900 cubic yards [CY]. For bidding purposes assume an estimated unit weight of 1.5 ton/CY. Payment will be based on pre- and post-excavation survey as described in **Section 01 71 23 - Field Engineering**.
3. EXCAVATION, TRANSPORTATION, AND OFF-SITE DISPOSAL will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of actual work completed under this item at the time of the payment estimate. Contractor will need to document quantities (by survey, truck disposal tickets, or similar) used against the base bid quantities to establish the percent complete and payment for each item described above for each pay request.

#### **G. BACKFILL**

1. Payment for this item will be based on completion of dredging-impacted sediment as described in **Section 31 23 23 - Fill**, other Specifications, and shown on the Contract Drawings.
2. BACKFILL shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, to provide all labor, tools, equipment, materials, and incidentals required to backfill the excavated area(s).
3. The Bid quantity for BACKFILL is the EXCAVATION volume.
4. BACKFILL will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of actual work completed under this item at the time of the payment estimate. Contractor will need to document quantities (by survey, weigh tickets, and similar), used against the base bid quantities

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to establish percent complete and payment for each item described above for each pay request.

**H. RESTORATION**

1. Payment for this item will be based on completion of site restoration activities as described in **Section 32 14 00 - Unit Paving**, **Section 32 15 00 - Aggregate Surfacing**, **Section 32 16 00 - Curbs, Gutters, Sidewalks, and Driveways**, **Section 32 31 00 - Fences and Gates**, **Section 32 32 00 - Retaining Walls**, **Section 32 92 23 - Sodding**, **Section 32 93 33 - Shrubs**, and **Section 32 93 43 - Trees**, other Specifications, and shown on the Contract Drawings.
2. RESTORATION shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, to provide all labor, tools, equipment, materials, and incidentals required to restore the site as required by the Specifications and shown on the Contract Drawings.
3. RESTORATION will be paid as a percentage of this item's lump sum value provided in the project's Schedule of Values based upon the percentage of whole properties restored under this item at the time of the payment estimate. Contractor will need to document the number of properties completely restored (by pictures and Ecology or Ecology Representative confirmation), versus the total number of properties to establish percent complete and payment for each item described above for each pay request.

**I. PROJECT CLOSE OUT**

1. PROJECT CLOSE-OUT shall be a lump sum amount in the project's Schedule of Values, and is full compensation, including overhead and profit, to provide all labor, tools, equipment, materials, and incidentals necessary to complete the project close out requirements, as specified in **Section 01 77 00 - Closeout Procedures**.
2. PROJECT CLOSE OUT will be paid at 100 percent of this item's lump sum amount provided in the project's Schedule of Values upon completion of all work associated with this item. No partial payments will be made for this item.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 11 13**

**SECTION 01 14 13  
ACCESS TO SITE**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This Section includes Project Site access; Contractor, Ecology, and Property Owner use of the Project Site(s); and protection of site property, equipment, and materials.

**1.02 OVERALL SITE ACCESS CONDITIONS**

- A. Contractor shall confine all operations, including storage of materials, to Ecology-approved areas.
- B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be provided by Contractor only with the consent of Ecology and without additional expense to Ecology. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the Work.
  - 1. Ecology does not own property within or in close vicinity to the Project area. In the event property or access rights must be obtained for the location of temporary buildings and utilities, the responsibility to secure all access rights and permissions shall be the Contractor's at no additional cost to Ecology. This includes right-of-way permits and fees for the location of temporary buildings and other facilities within the public right-of way.
- C. Contractor shall use only established roadways or temporary roadways authorized by Ecology. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by federal, state, or local law or regulation.
- D. Ownership and control of all materials or facility components to be demolished or removed from the Project Site by Contractor shall immediately vest in the Contractor upon severance of the component from the facility or severance of the material from the Project Site. Contractor shall be responsible for compliance with all laws governing the storage and ultimate disposal. Contractor shall provide Ecology with a copy of all manifests and receipts evidencing proper disposal when required by Ecology or applicable law.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 14 13 – ACCESS TO SITE**

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**1.03 CONTRACTOR’S USE OF SITE AND PREMISES**

- A. Contractor’s Use of the Premises: During the construction period, Contractor shall have full use of the outdoor tenant space of each property, provided sufficient access (including handicapped access, if necessary) is maintained from the street to an accessible entryway into each residence.
  - 1. Access is not permitted into the interiors of buildings or enclosed structures on the properties, unless authorized by Ecology in advance.
  - 2. Contractor’s use of the tenant space shall be limited by the conditions set forth in the Project Manual and the Ecology’s right to perform construction operations with its own personnel or to employ separate Contractors on portions of the Project.
  - 3. Contractor’s use of surrounding areas shall be subject to approval and direction of Ecology, including but not limited to traffic of Contractor equipment and vehicles, dust and debris control, and noise control.
- B. Contractor shall provide Ecology a minimum of **five (5) working days of notice** in advance of commencing Work on an individual Parcel, including commencing Work after not performing Work on that Parcel for ten (10) working days. This is necessary to allow for advance notification of Property Owners prior to Work being performed on their property.
- C. Emergency Access: Contractor shall provide pathways, drives, gates, directional signage and other provisions as required by authorities having jurisdiction, for emergency access to Project area(s).
  - 1. Emergency Egress: Maintain all pathways, exitways, drives, gates, and other means of egress during construction as required by authorities having jurisdiction.
  - 2. Utility Outages and Shutdowns: See **Section 01 18 00 – Project Utility Sources** for information on scheduling utility outages and shutdowns.

**1.04 ECOLOGY’S USE OF SITE AND PREMISES**

- A. Ecology reserves the right to occupy (Prior Occupancy) and to place and install equipment and furnishings in tenant space prior to Substantial Completion, provided that such occupancy does not interfere with completion of the Work within the Contract Time. Such Prior Occupancy (See **Section 00 72 00 - General Conditions**) by Ecology shall not constitute acceptance of the total Work.
- B. Contractor shall provide Ecology, Ecology’s Representative (Engineer), and others as designated by the Contractor access to the Work in progress wherever located.
  - 1. Ecology field representatives shall be authorized to enter the Project Site to observe and document the Work activities and coordinate communications and

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 14 13 – ACCESS TO SITE**

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activities involving Contractor, Ecology, Ecology's Representative (Engineer), Property Owner(s), and Tenant(s).

2. The number of Ecology field representatives shall be determined at Ecology's discretion depending on the type and sensitivity of the Work being performed.
  3. Ecology will identify Ecology field representatives to the Contractor as necessary during Work.
  4. Contractor shall provide Ecology field representatives all reasonable access to the Work to photograph, document, measure, sample, or other activities as required by Ecology.
  5. Unless Ecology notifies Contractor otherwise, Ecology field representatives will not have the authority to direct, manage, supervise, administer, alter, and/or terminate Work.
    - a. No verbal statement made by any Ecology field representative in relation to the Work, the Contract Documents, the Contractor, and/or the physical conditions pertaining to the Project Site and Work shall be binding on Ecology.
- C. Property Owner(s) and/or Tenant(s) shall not be considered Ecology field representatives.

**1.05 PROPERTY OWNER'S AND TENANT'S USE OF SITE AND PREMISES**

- A. Most of the properties in the Project Site are developed with single-family, or multi-family residences. During the Contract Time, these residences remain in the private ownership of the Property Owners. The Property Owners and/or their Tenants reserve the right to occupy and continue to occupy their residence during construction.
- B. Property Owners reserve the right to place and install equipment and furnishings in tenant space of their individual property prior to Substantial Completion, provided that such occupancy does not interfere with completion of the Work within the Contract Time and can be performed safely.

**DIVISION 01 – GENERAL REQUIREMENTS  
SECTION 01 14 13 – ACCESS TO SITE**

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**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 PROTECTION OF ON-SITE PROPERTY, EQUIPMENT, AND MATERIALS**

- A. Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project Site. Materials and equipment may be stored on the premises subject to approval of Ecology. When Contractor uses any portion of the Project Site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.
- B. Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Substantial Completion, and shall repair or replace without cost to Ecology any damage or loss that may occur, except damages or loss caused by the acts or omissions of Ecology.
- C. Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment, after the date of Substantial Completion, and shall repair or replace without cost to Ecology any such damage or loss that might occur, to the extent such damages or loss are caused by the acts or omissions of Contractor, or any Subcontractor.

**END OF SECTION 01 14 13**

**SECTION 01 18 00**  
**PROJECT UTILITY SOURCES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This section describes the limited utility availability at the Project Site(s).

**1.02 LIMITED UTILITY AVAILABILITY**

- A. Due to the present occupancy of properties comprising the Project Site by Property Owners and/or Tenant(s) who are not Ecology, it is not possible for Ecology to furnish utility access to the Contractor. Utilities provided to each property in the Project Site are further private in nature and subject to Property Owner contracts and billing that Ecology has no access to or authority over.
1. Contractor **shall not** connect to any on-site utility service provided to Property Owner and/or Tenant(s) unless Ecology approves in writing in advance.
  2. Contractor shall anticipate furnishing all temporary utility needs to complete the Work. This shall include, but not be limited to, electricity and water for dust control and irrigation.
- B. Contractor is permitted by Ecology to install temporary connections and distribution lines to public utilities independent of utilities provided to the existing Property Owner and/or Tenant(s), as negotiated between Contractor and the utility service provider.
1. Where such temporary connections can be made, the utility service consumed shall be charged to and paid for by the Contractor.
  2. Contractor shall, at its expense and in a skillful manner satisfactory to Ecology and the utility service provider, install and maintain the temporary connections and distribution lines, together with appropriate protective devices and all meters required to measure the amount of each utility used.
  3. Prior to the date of Final Completion, unless otherwise authorized by Ecology in writing, Contractor shall remove all temporary connections, distribution lines, meters and associated equipment and materials, and provide Ecology written documentation from the utility service provider of the satisfactory disconnection, if requested.
  4. Utility Outages and Shutdowns: Schedule utility outages and shutdowns to times and dates acceptable to Ecology, Property Owner and Tenant(s), and utility owner unless otherwise directed by Ecology. Provide minimum 48-hours' notice of all utility outages and shutdowns to Ecology. Duration of outages and



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 18 00 – PROJECT UTILITY SOURCES**

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shutdowns shall not hinder normal activities of the Property Owner and Tenant(s), except as acceptable in advance by Ecology.

**1.03 COMBINED SEWER**

- A. Access points into the combined sewer system for storm water disposal purposes are found in the adjacent city streets.
- B. Contractor shall obtain all required permissions from the City of Everett for stormwater disposal from the Project site during Work, in accordance with City of Everett standards and the Project National Pollutant Discharge Elimination System (NPDES) Permit.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 18 00**

**SECTION 01 20 00**  
**PRICE AND PAYMENT PROCEDURES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This section includes price, measurement, and payment procedures.

**1.02 RELATED SECTIONS**

- A. The provisions and intent of the Contract, including the **Section 00 72 00 - General Conditions, Section 00 73 00 - Supplementary Conditions, and Section 00 73 43 - Wage Rate Requirements** apply to this work as if specified in this section. Work related to this section is described throughout these Specifications.
- B. Individual submittals are required in accordance with the pertinent sections of these Specifications.

**1.03 PAYMENT PROCEDURES**

- A. “Pencil Copies” of the monthly pay estimates shall be presented to Ecology or Ecology’s Representative not more than three (3) working days prior to the anticipated submittal of the “formal” pay estimate. The Contractor shall hold a meeting with Ecology or Ecology’s Representative, required subcontractor representatives to discuss the quantities to be included in the pay estimate for the respective month. Upon agreement of the quantities performed, the Contractor shall complete the pay estimate for submittal.
- B. Monthly pay estimates shall clearly identify the work performed for the given time period based on a percentage of work completed for lump sum bid items and actual quantities installed for unit price items.
- C. Prior to submitting pay estimates to Ecology, the Contractor and Ecology or Ecology’s Representative shall review the work accomplished to agree upon percentage of Work completed using the project’s schedule of values.
- D. Following review, the Contractor shall prepare an original pay estimate with complete supporting documentation attached and submit electronically (preferred method in support of Ecology’s “Green” contracting practices) to the attention of Erika Lindsey, Ecology Contracts Officer. The pay estimate shall be emailed to:

Email: [erika.lindsey@ecy.wa.gov](mailto:erika.lindsey@ecy.wa.gov).

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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- E. The Ecology Contracts Officer will review the amount invoiced to verify costs are in accordance with the Ecology Project Manager's recommendations, authorized scope of work, proposed rates, and the terms and conditions of the Contract. Once verified, the Ecology Contracts Officer approves the pay estimate for payment and forwards to Ecology's finance department for processing. Payments for approved pay estimates shall be made within thirty (30) calendar days of receipt by the Ecology Contracts Officer, unless the pay estimate has been returned to the Contractor for revision(s) and resubmittal. Pay estimates requiring revision(s) will be returned to the Contractor per Article 6.04 Progress Payments of **Section 00 72 00 – General Conditions**.

**1.04 PRICING PROCEDURES**

- A. Pricing for the various lump sum prices in the Bid Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Documents.
- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Division of Occupational Safety and Health (DOSH) of the Washington State Department of Labor and Industries and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- C. No separate payment will be made for any item that is not specifically set forth in the Bid Form, and all costs therefore shall be included in the prices named in the Bid Form for the various appurtenant items of work.
- D. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices bid. Payment for work under one item will not be paid for under any other item.
- E. Ecology reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes will govern the compensation.

**1.05 MEASUREMENT AND PAYMENT**

- A. Measurement and payment shall be in accordance with the schedules below and shall be based upon: 1) Lump Sum/Known Quantity bid items as stipulated in the Bid Form. Payment shall be considered full compensation for furnishing all labor, materials and equipment to complete the Work specified, to include all direct, indirect and overhead costs, and profit.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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- B. In measuring all acceptably completed items of work, Ecology will:
1. Use United States standard measure;
  2. Make all measurements as described in this section, unless individual specifications require otherwise;
  3. Follow methods generally recognized as conforming to good engineering practice;
  4. Conform to the usual practice of carrying measurements and computations to the proper significant figure or fraction of units for each item; and
  5. Measure horizontally or vertically (unless otherwise specified).
- C. The terms listed below shall be defined as follows in all measurements under this section:
1. “Acre”: area equal to 43,560 square feet.
  2. “Cubic Yard (CY)”: volume of material equal to 27 cubic feet. “Gallon”: measurement shall be in U.S. gallons, as measured by the licensed disposal facility at the time of disposal.
  3. “Hour”: hourly rate for equipment and personnel, including fees, taxes, and any other incidentals. Prevailing wage rates shall apply for the work in this Contract.
  4. “Linear Foot”: measured parallel to the structure’s base or foundation, unless the Contract Drawings require otherwise.
  5. “Lump Sum” (when used as an item of payment): complete payment for the work described for that item in the contract. Lump sum payments also may be made based on percent of completion. Minor adjustments to the work shall be assumed to be incidental with regard to global lump sum work items such as health and safety, survey, mobilization, and other similar items.
  6. “Ton”: 2,000 pounds of weight.
- D. For each item listed below, Ecology will use the method of measurement described.
1. Standard Manufactured Items: measured by the manufacturer’s identification gage, unit weight, section dimension, etc. Ecology will accept manufacturing tolerances set by each industry unless cited specifications require more stringent tolerances.
- E. No measurement will be made for:
1. Work performed or materials placed outside lines shown in the Contract Drawings or set by Ecology;
  2. Materials wasted, used or disposed of in a manner contrary to the contract;
  3. Rejected materials (including those rejected after placement if the rejection resulted in the Contractor’s failure to comply with the contract);

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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4. Hauling and disposing of rejected materials;
  5. Material remaining on hand after the work is completed; or
  6. Any other work or material contrary to any contract provision.
- F. Lump Sum/Known Quantity, any alternate bid items, and any Unit Price Bid items are identified in **Section 01 11 13 - Work Covered By Contract Documents**.
- G. **Section 01 11 13 - Work Covered By Contract Documents** identifies basis of bid quantities provided by ECOLOGY for specific items of work for use in the preparation of bids for this project. The basis of bid quantities are estimated quantities for the work described. After contract award, as work progresses on the project, there may be underruns or overruns in the basis of bid quantities provided by ECOLOGY, which result in an adjustment (either an increase or decrease) to the contract amount. This adjustment to the contract amount due to changes in the basis of bid quantities will be negotiated in accordance with **Section 00 72 00 - General Conditions, Part 7 - Changes**.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 20 00**

**SECTION 01 25 00**  
**SUBSTITUTION PROCEDURES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Requests for changes in products, materials, means and methods, scheduling changes, and/or equipment construction required by Contract Documents that may be proposed by the Contractor after Award of the Contract are considered Substitution requests.

**1.02 RELATED SECTIONS**

- A. Section 01 35 43.10 - Green Construction Practices
- B. Section 01 60 00 - Product Requirements
- C. Divisions 1-32: See Part 2 - Products for Material Requirements in each Section
- D. Other applicable sections of the Specifications

**1.03 SUBMITTALS**

- A. Requests for substitution submitted by the Contractor will be considered by Ecology if received no later than twenty (20) working days after Notice to Proceed or at least ten (10) working days before the use of the substitution on a specific property in the Project Site after Work has commenced.
  - 1. Requests for substitution that do not comply with this Specification may be considered or rejected at the sole discretion of Ecology.
- B. Contractor shall submit each request for substitution in writing for consideration to Ecology.
  - 1. Submit request for substitutions in the form and in accordance with **Section 01 33 00 - Submittal Procedures**.
  - 2. Email is acceptable for submitting requests for substitutions in writing.
- C. In the submitted request for substitution, the Contractor shall identify the product, or the fabrication of installation method to be replaced for each request, the related Project Manual section(s) and complete documentation showing compliance with the requirements for substitutions. Where appropriate, the following information shall be included:

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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1. Product Data, including Shop Drawings and descriptions of Products, fabrication, and installation procedures.
  2. Samples, where applicable or requested.
  3. A detailed comparison of significant qualities of the proposed substitution with those of the Work as specified. Significant qualities may include elements such as size, weight, durability, performance, and visual effect.
  4. Coordination information needed includes as a minimum a list of changes or modifications needed to other parts of the Work, changes needed to construction performed by Ecology, and changes by separate Contractors that will become necessary to accommodate the proposed substitution.
  5. A statement indicating the substitution's effect on the Contractor's Construction Progress Schedule compared to the schedule without approval of the substitution. Also indicate the effect of the proposed substitution on overall Contract Time.
  6. Cost information, including the net change, if any, in the Contract Sum.
  7. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
- D. Within ten (10) working days of receipt of the request for substitution, Ecology may request additional information or documentation necessary for evaluation of the request.
1. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name in the Contract Documents.
  2. If applicable, formal acceptance of a change in the Contract Documents will be requested in accordance with Part 7 - Changes of **Section 00 72 00 - General Conditions**.

**1.04 DEFINITIONS**

- A. Substitutions for Cause: Substitutions required due to causes not under the Contractor's control.
- B. Substitutions for Convenience: Substitutions selected by the Contractor for reasons under the Contractor's control, or that provide a substantial advantage to Ecology.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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**1.05 MINIMUM CONDITIONS FOR CONSIDERATION**

- A. General Substitution Requirements: The Contractor's substitution request will be received and considered by Ecology when one or more of the applicable conditions in these paragraphs are determined by Ecology to be satisfactory.
1. Requested substitution is consistent with Contract Documents and will produce indicated results.
  2. The substitution request is timely, fully documented and properly submitted.
  3. Substitution provides sustainable design characteristics that the specified Product or construction method provided.
  4. There were no bidder-requested substitutions for this Product or method approved prior to the Award of the Contract. These approved Products or methods must all meet the substitution conditions before any new Products or methods will be approved.
  5. The specified Product or method of construction cannot be provided within the Contract Time, and the substitution does not adversely affect the Contractor's construction schedule. The request will not be considered if the specified Product or method cannot be provided as a result of failure to pursue the work promptly or coordinate activities properly.
  6. The specified Product or method of construction cannot receive necessary approval by the authority having jurisdiction, and the substitution can be approved.
  7. The specified Product or method of construction cannot be provided in a manner that is compatible with other materials/methods, and where the Contractor certifies that the substitution will overcome the incompatibility.
  8. The specified Product or method of construction cannot be coordinated with other materials/methods, and where the Contractor certifies that the substitution can be coordinated.
  9. If requested substitution involves more than one Contractor, requested substitution has been coordinated with other portions of Work, is uniform and consistent, is compatible with other products, and is acceptable to all Contractors involved.
  10. The specified Product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the substitution can be coordinated.
- B. Substitutions for Cause: Submit requests for substitutions immediately on discovery of need for change. Ecology will consider Contractor's request for substitution when the following conditions are satisfied:
1. Substitution meets general substitution requirements above.



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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- C. Substitutions for Convenience: Submit requests for substitutions the same week change is determined. Ecology will consider Contractor’s request for substitution when the following conditions are satisfied:
  - 1. Substitution meets general substitution requirements above.
  - 2. Requested substitution offers Ecology a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Ecology must assume. Ecology’s additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Ecology, and similar considerations.
  - 3. Requested substitution does not require extensive revisions to the Contract Documents.
- D. The determination that a substitution is satisfactory is solely at the discretion of Ecology and may require Ecology to negotiate acceptance of the substitution with the applicable Parcel Property Owner(s).
  - 1. Ecology reserves the sole discretion to reject any proposed substitution that is not acceptable to the Property Owner of the Parcel affected by the substitution at no additional cost to Ecology.
- E. The Contractor’s submittal and Ecology’s acceptance of Shop Drawings, Product Data, or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

**1.06 SUBSTITUTION OF MATERIALS (“OR EQUAL”)**

- A. Proposed equipment to be considered “or equal” will necessitate written approval by Ecology prior to substitution.
  - 1. On requests for substitution of materials clearly defined and describe proposed substitute.
  - 2. Accompany requests by complete specifications, samples, records of performance, certified test reports, and such other information as Ecology may request to evaluate the substitute product.
  - 3. Contractor is responsible for a substitute item suiting the installation requirements and for additional costs incurred as a result of substitution.
- B. Final decisions regarding quality and suitability of proposed substitutions rests solely with Ecology and will be based on information submitted.

**PART 2 - PRODUCTS (NOT USED)**

**DIVISION 01 – GENERAL REQUIREMENTS  
SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 25 00**

**SECTION 01 26 13**  
**REQUESTS FOR INFORMATION (RFI)**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Requests for Information: A document submitted by the Contractor requesting clarification of a portion of the Contract Documents, hereinafter referred to as an RFI.
- B. Should the Contractor be unable to determine from the Contract Documents the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of Work is described differently at more than one place in the Contract Documents; the Contractor shall request Ecology make an interpretation of the requirements of the Contract Documents to resolve such matters. The Contractor shall comply with procedures specified in this section to make Requests for Interpretation.

**1.02 SUBMITTALS**

- A. The Contractor shall prepare and maintain a log of RFIs. At any time requested by Ecology, the Contractor shall submit copies of the log showing all outstanding RFIs.
- B. Submit RFIs as noted in Part 3 of this section.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 SUBMITTALS**

- A. RFIs shall be prepared and submitted in accordance with the following:
  - 1. RFIs shall be provided in writing to Ecology by the Contractor including at least the information noted in this section.
  - 2. Number each RFI with a discrete, consecutive number.
  - 3. Include the Project name, date, RFI number, and a descriptive title on each RFI page and attachment.
  - 4. Include a clear and legible statement of the Work element where interpretation is requested, including specific reference(s) to the pertinent sections and paragraphs of the Project Documents.
  - 5. Clearly state the reasons why the RFI is being submitted by the Contractor.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 26 13 - REQUESTS FOR INFORMATION (RFI)**

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6. Sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation.
  7. The Contractor is responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
  8. Indicate if the RFI involves a change in Contract Time and/or Contract Sum.
- B. Contractor shall carefully study the Contract Documents to ensure that information sufficient for interpretation of requirements of the Contract Documents is not included.
1. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
  2. Frivolous RFIs shall be subject to reimbursement from Contractor to Ecology for costs incurred in review of the frivolous RFIs by Ecology, the Engineer, or other consultants and design professionals engaged by Ecology.
- C. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by, and be attached to an RFI prepared, signed, and submitted by the Contractor. RFIs submitted directly by Subcontractors or material suppliers will be returned unanswered to the Contractor.
1. Contractor shall review all Subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing, and layout of the Work.
  2. RFIs submitted to request clarification of issues related to means, methods, techniques, and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the Contractor's responsibility.
  3. Contractor shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
- D. In all cases in which RFIs are issued to request clarification of issues related to means, methods, techniques, and sequences of construction, the Contractor shall furnish all information required for Ecology or Ecology Representative to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the Contractor shall proceed.
1. If information included with this type of RFI by the Contractor is insufficient, the RFI will be returned unanswered.
- E. Ecology shall review RFIs and respond to the Contractor within ten (10) working days of receipt. RFIs received shall be considered received on the next regular working day for the purpose of establishing the start of the 10-day response period.
- F. RFIs shall not be used for the following purposes:
1. To request approval of submittals.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 26 13 - REQUESTS FOR INFORMATION (RFI)**

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2. To request approval of substitutions.
  3. To request changes that only involve change in Contract Time and/or Contract Sum.
  4. To request different methods of performing Work than those indicated in the Contract Documents.
- G. In the event the Contractor believes a response to an RFI by Ecology will result in additional cost or time, the Contractor shall not proceed with the Work indicated by the RFI until authorized to proceed by Ecology.

**END OF SECTION 01 26 13**

**SECTION 01 31 00**  
**PROJECT MANAGEMENT AND COORDINATION**

**PART 1 - GENERAL**

**1.01 PROJECT SUPERVISION**

**A. Contractor's Supervision**

1. The Contractor shall provide the services of a full-time, experienced, and qualified construction field superintendent who shall be assigned to the job during the course of the work. The person designated as construction field superintendent shall have direct charge of the work and shall be authorized to accept and execute all orders and directions issued by Ecology. The construction field superintendent shall be readily available during normal work hours for consultation with Ecology and be physically on the job Site during Site activities. The construction field superintendent shall not be removed or replaced during the entire course of the contract work without the written approval of Ecology.
2. The Contractor shall manage the project. The Contractor shall inform the Ecology Project Manager (and Ecology or Ecology's Representative) with information throughout the work so they can make informed and effective decisions.
3. Unprofessional behavior of any kind by Contractor and Subcontractor personnel is unacceptable and will not be tolerated on this project.
  - a. Ecology will direct the Contractor to immediately remove any Contractor or Subcontractor personnel from the project, for the duration of the project, that exhibit unprofessional behavior to Ecology staff, Ecology Representative, the Property Owner, or general public, and replace with competent personnel that are acceptable to Ecology.
  - b. Upon notification by Ecology, the Contractor's failure to immediately address and correct any displays of unprofessional behavior by its personnel or by Subcontractor personnel, or to remove personnel exhibiting such behavior when directed to do so by Ecology is grounds for termination of the contract for cause.

**B. Ecology Supervision**

1. Ecology's Project Manager or Ecology's Representative (Engineer) will represent Ecology on the site.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION**

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**1.02 MEETINGS**

The Contractor's project manager and/or project superintendent shall attend, at a minimum, the following meetings with Ecology or Ecology's Representative:

A. Public Meeting(s)

1. Contractor shall participate in public meetings and conferences scheduled and conducted by Ecology. Ecology will coordinate with the Contractor for all these meetings to determine appropriate representation, discuss the meeting agenda, and minimize impacts and consequences on the Work.
  - a. Public meetings are anticipated on or near the beginning of the Contract Time.
  - b. A public meeting is possible at or near the end of the Contract Time, at the discretion of Ecology.
  - c. Contractor is not responsible for preparing and distributing either agenda or minutes for public meetings and conferences scheduled and conducted by Ecology.
2. Virtual meetings are suitable alternatives to in-person meetings at the discretion of Ecology. This applies to all other references to in-person meetings noted in the specifications.

B. Preconstruction Meeting

1. Following the award, Ecology and Contractor will determine the time and date of a preconstruction meeting that works for all parties, and is included in. The preconstruction meeting will be scheduled only after all the preconstruction submittals are received, but should be within about 15 working days of Notice to Proceed. The preconstruction meeting will be conducted in Everett, Washington and may include a site visit at each property. The following are requested to attend and suggested agendas are as follows:
  - a. Ecology:
    - 1) Ecology Contracts Manager (as required)
    - 2) Ecology Project Manager
    - 3) Ecology's Representative-Ecology's Engineer
  - b. Contractor's Representatives:
    - 1) Superintendent
    - 2) Contract Administrator (if required)
    - 3) Major Subcontractors, as determined by Contractor
    - 4) Major Suppliers (as required)

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION**

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- c. City of Everett Public Works or other staff as determined by the City of Everett.
  - d. Suggested Agenda:
    - 1) Communications and Routing
    - 2) Schedule of Values
    - 3) Execution of the Contract
    - 4) Discussion of the General Conditions
    - 5) Discussion of the Special Conditions
    - 6) Discussion of the Project Specific Requirements
    - 7) Discussion of the Technical Specifications
    - 8) Change Order Process
    - 9) Terms and Conditions of Payment
    - 10) Use of the premises in the Project area
    - 11) Responsibility for temporary facilities, controls, and erosion best management practices
    - 12) Parking availability
    - 13) Work and temporary storage areas
    - 14) Security
    - 15) Progress cleaning
    - 16) Working hours
    - 17) Topics requested by Contractor or Ecology
    - 18) Site visit to each property
    - 19) Other issues, if any
- C. Weekly Progress/Construction Meetings
- 1. Ecology will schedule and administer weekly progress meetings throughout progress of the work. Unless a different day and time is agreed to, progress meetings will likely take place on Tuesdays between the hours of 9:00 am and 4:00 pm.
  - 2. Ecology will arrange meetings, prepare standard agenda with copies for participants, preside at meetings, record minutes and distribute copies (at Ecology's discretion) of the minutes within five (5) working days of the weekly progress meeting to the Contractor, meeting participants, and others affected by decisions made.
  - 3. Attendance is required for the Contractor's job superintendent, major Subcontractors and suppliers, Ecology, and others as appropriate to the agenda topics for each meeting.
  - 4. Standard Agenda



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION**

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- a. Review and correct or approve minutes of previous progress meeting.
- b. Review of work progress and Contractor's daily reports specified in **Section 01 45 16.13 - Contractor Quality Control**.
- c. Review site safety and health issues identified since the last meeting by Contractor, Ecology, Ecology's field representatives, Property Owners and/or Tenants, and the public.
- d. Field observations, problems, and decisions. This may include, but is not limited to National Pollutant Discharge Elimination System (NPDES) permit compliance, erosion control, or other safety and health issues.
- e. Identification of problems that impede planned progress.
- f. Maintenance of Progress Schedule.
- g. Corrective measures to regain projected schedules.
- h. Planned progress during succeeding work period.
- i. Coordination of projected progress.
- j. Maintenance of quality and work standards.
- k. Effect of proposed changes on progress schedule and coordination.
- l. Demonstration that the project record drawings are up-to-date.
- m. Other business relating to the work.

**D. Special Meetings**

1. Contractor's project manager and/or project superintendent shall attend special meetings that may be held at Ecology's request when a problem or deficiency is present or likely to occur. The purpose of these meetings will be to define and discuss a problem or recurring work deficiency, review alternative solutions, and identify a plan to efficiently and effectively resolve the problem or deficiency.
2. Contractor's project manager and/or project superintendent shall attend other meetings at Ecology's request to coordinate Contractor's activities with related work being conducted by Ecology.
3. Contractor's project manager and/or project superintendent's attendance at off-site meetings with regulatory agencies or other parties shall be arranged as necessary. Contractor shall participate in off-site meetings at no additional cost to Ecology.
4. Optional: Prior to the start of excavation at a specific property, the Contractor's project manager and/or project superintendent, Ecology, and the property owner(s) and/or tenant(s) may meet at the subject property to review the proposed work and confirm specific details, requirements, and schedule.

**E. Health and Safety Meetings**

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1. Contractor shall conduct health and safety meetings for Contractor personnel as required by Contractor's health and safety plan, including but not limited to daily tailgate safety meetings. Ecology may attend Contractor's health and safety meetings, as needed, to be aware of work conditions or health and safety concerns that could affect the normal business activities of Ecology's or Ecology's Representative's employees or tenants, or the coordination or execution of work under other contracts.

**1.03 NOTIFICATION POINTS**

- A. The Contractor shall notify Ecology at all milestone points prior to proceeding further, to allow inspection of the Contractor work progress. Ecology or Ecology's Representative may request additional Notification points based on review of the above information provided by the Contractor.

**1.04 CONSTRUCTION SCHEDULE SUBMITTALS**

- A. Project-Progress Schedule: The Contractor shall submit a Preliminary Project Schedule within 5 working days of Notice to Proceed and before Ecology schedules the preconstruction meeting. The schedule shall be a Critical Path Method (CPM) schedule developed in accordance with **Section 00 72 00 - General Conditions, 3.02 Construction Schedule**. The schedule shall be used to evaluate progress of work based on the Schedule of Values. The schedule shall show the Contractor's planned order and interdependence of activities, and sequence of work. The schedule shall be updated at least every other week or as often as requested by Ecology. The ten (10) required Project Schedule items identified in **Section 00 72 00 - General Conditions, 3.02 Construction Schedule**, are listed below with additional items underlined:
  1. Date of Notice to Proceed;
  2. Activities (resources, durations, individual responsible for activity, early starts, late starts, early finishes, late finishes, etc.);
  3. Utility shutdowns;
  4. Inter-relationships and dependence of activities;
  5. Planned vs. actual status for each activity;
  6. Preliminary punch list for each property;
  7. Substantial completion;
  8. Final Punch list;
  9. Final inspection;
  10. Final completion;

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11. Float time; and
  12. Project Closeout.
- B. The Contractor shall update the Project-Progress Schedule on a weekly basis, and bring the required number of copies to the Weekly Construction Meeting. At a minimum, schedule updates shall reflect the following information:
1. The actual duration and sequence of as-constructed Work activities, including changed Work.
  2. Approved time extensions.
  3. Unresolved requests for time extensions shall be reflected in the Schedule Update by assuming no time extension will be granted, and by showing the effects to follow-on activities necessary to physically complete the project within the currently Contract Time.
  4. Any construction delays or other conditions that affect the progress of the Work.
  5. Any modifications to the as-planned sequence or duration of remaining activities.
  6. Any modifications to the Critical Path.
  7. The Physical Completion of all remaining Work in the remaining Contract time.
- C. Refer to **Section 00 72 00 - General Conditions, Part 3.02 - Construction Schedule** for additional requirements. (Note: **Section 00 73 00 - Supplemental Conditions** may contain additional requirements).
- D. **Schedule of Values**: Provide a detailed cost break down of lump sum bid items to Ecology for approval. Furnish a fair evaluation of actual cost of each Work item listed. This will be used in processing Contractor's request for partial payment. Submittal of breakdown does not affect the Contract terms. The schedule of values shall at a minimum address, for each property, each work activity required to clean up and restore the property, including items in **Section 01 11 13 - Work Covered by Contract Documents**. Costs for any permit shall be listed separately, in accordance with **Section 00 72 00 - General Conditions, Part 5.02 Permits, Fees, and Notices**.

**1.05 CONSTRUCTION SCHEDULE REGARDING SUBMITTALS**

- A. The Contractor is hereby notified that Ecology will not defer liquidated damages or waive specified requirements due to project delays resulting from Contractor actions or inaction (including Contractor insufficient planning) or other causes, including but not limited to:
1. Contractor's late or inadequately packaged submittals (not meeting the requirements of **Section 01 33 00 - Submittal Procedures**), or submittals that require more than two Ecology reviews before approval by Ecology.

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2. The Contractor shall specifically note that restoration activity is seasonally dependent, and these specifications may contain various requirements with fixed calendar dates and should the Contractor fail to complete the work as indicated by these dates, then the Contractor may be required to complete alternate or supplemental work. Examples include 1) restoring the remediation area with sod should the allowed latest date for seeding pass, and 2) implementing additional TESC measures for enhanced protection of the work due to late sodding, in order to stabilize the site for the winter.
3. The Contractor shall specifically note that requirements for import soil (including topsoil) require the Contractor to identify and test multiple materials from multiple suppliers to obtain material that meets the specifications, and the Contractor shall note that import soil materials require on-going periodic testing during supply (not just an initial submittal for approval). Ecology has completed reasonable due diligence in identifying material specifications, and identifying suppliers that may meet the specifications; however, the Contractor is cautioned that the quality of soil (particularly topsoil and compost) provided by any given supplier can vary over time, particularly with respect to the presence of chemical contaminants, changes in component gradation, component blended ratios, or excessive moisture. The Contractor shall include material testing as line items in the project schedule.

**1.06 DIRECTION FROM ECOLOGY**

- A. All direction regarding the project shall be obtained from Ecology.

**1.07 ECOLOGY WORK CHANGE DIRECTIVES**

- A. Work Change Directives are the written form of communication Ecology shall use to direct changes, additions, and/or subtractions to the Project Scope in accordance with Part 7 - Changes of **Section 00 72 00 - General Conditions** for this Project.
  1. Use of Work Change Directives shall include Ecology changes to scheduled Work (such as Suspension of Work for Cause or Convenience) or other coordination with Property Owners, Tenants, municipal officials, and/or other Persons.
  2. Work Change Directives shall be clearly labeled as such by Ecology, to distinguish these documents from all other written communications between Ecology, Property Owner(s), Tenant(s), Engineer, Contractor and Subcontractor(s), etc.
- B. Receipt of a Work Change Directive from Ecology shall be considered a request for a Change Order Proposal from Contractor. Contractor shall comply with this request as required in Part 7 - Changes of **Section 00 72 00 - General Conditions**.

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1. For the purposes of determining Change Order Proposal deadlines as required in this Section of the General Conditions, Contractor shall assume Notice has been given by Ecology starting the next business day after the date on the Work Change Directive memo.
2. As a Work Change Directive is a change to the Contract Documents, Contractor shall still provide Ecology a Change Order Proposal even if no equitable adjustment to Contract Sum and/or Contract Time will be requested by Contractor.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 31 00**

**SECTION 01 33 00**  
**SUBMITTAL PROCEDURES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. General: The types of submittals specified in this Section include shop drawings, product data, samples, and miscellaneous Work-related submittals. Specialized submittal requirements are specified in applicable Sections for each unit of Work. Refer to other Division 01 Sections and other Contract documents for requirements of administrative submittals.
- B. Timing of Submittals: Submittals shall be submitted in accordance with the schedule in **Table 01 33 00-1: Partial List of Submittals Provided for the Contractor's Convenience**. The pre-construction conference will be scheduled only when all submittals required for submission by the pre-construction conference are received by Ecology. Contractor will not be authorized to mobilize to the site until all submittals required for submission by mobilization are received and approved by Ecology.

**1.02 RELATED REQUIREMENTS**

- A. The provisions and intent of the Contract, including the General and Supplemental Conditions apply to this work as if specified in this Section. Work related to this Section is described throughout these Specifications.
- B. Individual submittals required in accordance with the pertinent sections of these specifications. Other submittals may be required during the course of the project and are considered part of the normal work to be completed under the Contract.
- C. The list below may be incomplete, and it is the Contractor's responsibility to ensure the Contractor has met all conditions of the contract requirements.

**1.03 RELATED SECTIONS**

- A. See **Table 01 33 00-1**.

**1.04 REFERENCES**

- A. See **Section 01 42 00 – References** for definitions of work-related submittals for this Section.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 33 00 - SUBMITTAL PROCEDURES**

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**1.05 SUBMITTALS**

**A. PRECONSTRUCTION SUBMITTALS**

1. The Contractor will provide a separate Construction Quality Assurance Plan (CQAP) in writing before commencing the work. The CQAP will include items in 2) below, items in **Section 01 45 16.13 – Contractor Quality Control**, and sketches, as applicable. Ecology or Ecology’s Representative may request additional information if deemed necessary based on review of the Contractor’s proposed activities. The CQAP will be submitted to Ecology or Ecology’s Representative within 15 working days after Notice to Proceed (NTP) and prior to commencement of Work. The CQAP will include detailed Contract Drawings for each of the primary elements of the work.
2. CQAP General requirements:
  - a. Quality control organization
  - b. A comprehensive summary of the inspection and testing requirements
  - c. A comprehensive list of inspection and test methods, schedules, and procedures
  - d. Documentation methods and procedures
  - e. Requirements for corrective action when quality control and/or acceptance criteria are not met
  - f. Procedures to be followed to comply with the Record Document requirements (**Section 00 72 00 Part 4.02 - Project Record** and **Section 01 77 00 - Closeout Procedures**)
  - g. Temporary Facilities
  - h. Any additional elements that the Contractor deems necessary to adequately control all construction processes required by this contract.
3. Project Schedule: The Contractor will submit a Preliminary Project Schedule no later than five (5) working days after the date the NTP is issued. The schedule will be a Critical Path Method (CPM) schedule developed by the Precedence Diagramming Method (PDM). The Project Schedule will display the following information, at a minimum:
  - a. Construction Start Date
  - b. Critical Path
  - c. Identification and sequencing of contract work by Work Area
  - d. Listing of Each Contract Bid Item
  - e. Activity Description

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**SECTION 01 33 00 - SUBMITTAL PROCEDURES**

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- f. Activity Duration
  - g. Predecessor Activities
  - h. Successor Activities
  - i. Identification of necessary coordination dates with Ecology or Ecology's Representative to coordinate tenant interaction
  - j. Physical completion Date
  - k. The Contractor will update the Project Schedule at least every other week or as often as requested by Ecology and bring the required number of copies to the Weekly Construction Meeting. At a minimum, schedule updates will reflect the following information:
    - 1) The actual duration and sequence of as-constructed Work activities, including changed Work.
    - 2) Approved time extensions.
    - 3) Unresolved requests for time extensions will be reflected in the Schedule Update by assuming no time extension will be granted, and by showing the effects to follow-on activities necessary to physically complete the project within the currently authorized time for completion.
    - 4) Any construction delays or other conditions that affect the progress of the Work.
    - 5) Any modifications to the as-planned sequence or duration of remaining activities.
    - 6) Any modifications to the Critical Path.
    - 7) The Physical Completion of all remaining Work in the remaining Contract time.
  - l. Refer to **Section 00 72 00 - General Conditions, Article 3.02 - Construction Schedule** for additional requirements.
4. Site-specific Health and Safety Plan (**Section 01 35 29.13 - Health, Safety, and Emergency Response Procedures for Contaminated Sites**). Assess the potential safety risks to on-site personnel and the environment and develop a Site-specific Health and Safety Plan to safely execute the work under this Contract. The Contractor is responsible for independently evaluating the physical and chemical hazards associated, or potentially associated with the project site and the work under this Contract and developing a plan that adequately addresses these hazards in compliance with applicable local, state, and federal regulations. The Contractor will submit the Site-specific Health and Safety Plan to Ecology or Ecology's Representative for review and general concurrence. A copy of the approved Site-specific Health and Safety Plan will be maintained on site at all times.



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**SECTION 01 33 00 - SUBMITTAL PROCEDURES**

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5. Spill Prevention, Control, and Countermeasure Plan
6. Green Cleanup Project Work Plan
7. Stormwater Pollution Prevention Plan (SWPPP)
8. National Pollutant Discharge Elimination System (NPDES) Transfer of Coverage Form
9. Material Safety Data Sheets (SDS)
10. Survey Schedule

**B. PERIODIC SUBMITTALS**

The Contractor will provide the following submittals to Ecology or Ecology's Representative at specified intervals for the following specific activities:

1. Green Cleanup Project Work Plan:
  - a. Periodic reporting/documenting best practices in **Section 01 35 43.10 – Green Construction Practices, 3.01B**.
2. Contractor Reports:
  - a. Submit Contractor daily field reports as a batch at the end of each week, unless requested sooner by Ecology.
  - b. Contractor quantity sheets/weight tickets as noted in **Section 01 45 16.13 – Contractor Quality Control**.
  - c. Other ongoing/periodic submittals noted in **Table 01 33 00-1**.
3. Submittal List: **Table 01 33 00-1** provides a summary of submittals that may not be comprehensive.
  - a. **Table 01 33 00-1** is not intended to be comprehensive, and the failure to include any submittal otherwise called for in the Contract Documents shall not alleviate the Contractor's requirement to provide it.
  - b. Submit a tracking table (Excel format) of Contractor submittals for comparison if Ecology requests. The tracking table shall include at least the columns in **Table 01 33 00-1** as well as columns for date due, date submitted, date response received, and response summary.

**1.06 GENERAL SUBMITTAL REQUIREMENTS**

**A. General:**

1. Coordination and Sequencing:
  - a. Coordinate preparation and processing of submittals with performance of the Work so that the Work is not delayed by submittals and reviews. Coordinate

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 33 00 - SUBMITTAL PROCEDURES**

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and sequence different categories of submittals for same Work, and for interfacing units of Work, so that one will not be delayed for coordination with another.

- b. See **Section 01 31 00 - Project Management and Coordination, Article 1.05** regarding timeliness of submittals.
2. Preparation of Submittals: Provide permanent marking on, or with, each submittal to identify Project, date, Contractor, Subcontractor, submittal name, and similar information to distinguish it from other submittals.
  3. Strike out inapplicable items on submittals.
  4. Submit manufacturer's product data for all materials incorporated into the work, and such submittals shall be reviewed by Ecology prior to bringing material on-site.
  5. Submit supplemental test data where specified.
  6. Except as otherwise indicated in individual Work Sections, comply with requirements specified herein for each indicated category of submittal.
  7. Provide and process intermediate submittals, where required between initial and final, similar to initial submittals.
  8. Include a transmittal with all submittals.
  9. Include an updated submittal register that identifies new submittals and Contractor's number. Provide Ecology with the selected submittal schedule for review and approval prior to its use. An example submittal log/register can be provided by Ecology, upon request, at the pre-construction meeting.
  10. Submittals received shall be considered received on the next working day for the purpose of establishing the start of the specified response period.
  11. Submit to the Ecology project manager: one (1) paper copy (if requested by Ecology), and two (2) electronic copies [one (1) during construction and another one (1) after construction with other closeout items (pdf and original file format) per **Section 01 77 00 – Closeout Procedures**. Emailed files shall be less than 10 MB each.
- B. Product Data:
1. General:
    - a. Collect required data into one submittal for each unit of Work or system; and mark each copy to show which choices and options are applicable to the Project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, applications of labels and seals, notation of field measurements which have been checked, and modify details as required for application into the Work. Include color selection information where necessary.

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**SECTION 01 33 00 - SUBMITTAL PROCEDURES**

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- b. Do not proceed with installation of materials, products, or systems until final copy of applicable product data has been reviewed and accepted by Ecology and is in possession of Installer. Maintain one (1) complete set of product data at the site for use by Ecology.
  2. Preparation and Processing: Do not submit product data, or allow use of products on the Project, until compliance with requirements of Contract documents has been confirmed by Contractor. Submittal is for information and record, unless otherwise indicated. Initial submittal shall be a final submittal unless returned by Ecology, marked with an “Action” which indicates an observed noncompliance.
  3. Do not proceed with fabrication, delivery, or installation until submittal is fully reviewed and accepted.
- C. Samples:
1. General: Provide samples identical with final condition of proposed materials or products for the Work. Include “range” Samples (not less than three [3] units) where there are unavoidable variations between units of each set. Provide full set of optional Samples where Ecology’s selection is required. Prepare Samples to match Ecology’s sample where indicated. Include information with each sample to show generic description, source, or product name and manufacturer, limitations, and compliance with standards. Samples are submitted for review and confirmation of color, pattern, texture, and “kind” by Engineer. Engineer will not “test” Samples (except as otherwise indicated) for compliance with other requirements, which are, therefore, for exclusive responsibility of the Contractor.
  2. Processing: Submit two (2) sets of Samples for Ecology’s review and “Action”; one (1) set will be returned. Large Samples, which may be incorporated into the Work, may be submitted singly.
  3. Reusable Samples: Returned Samples which are intended or permitted to be incorporated in the Work are so indicated in the individual Work Sections, and must be in undamaged condition at the time of use.
  4. For mid-project testing of soils and similar materials, submit test results sufficiently in advance (considering review time) of when acceptance is needed.
- D. Warranties and Guarantees: In addition to copies desired for Contractor’s use, furnish three (3) executed copies. Furnish additional copies where required for maintenance manuals.

**1.07 ACTION ON SUBMITTALS**

- A. Ecology’s Action: Ecology will review each submittal, mark with “Action”, and, where possible, return within **ten (10) working days** of receipt. Submittals shall be considered received on the next regular working day for the purpose of establishing the start of the 10-day response period. Where submittal must be held for

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coordination, they will be returned to the Contractor within ten (10) working days of receipt for the Contractor to resubmit when it is appropriate.

1. Final Unrestricted Release: Work may proceed, provided it complies with Contract documents, when submittal is returned with marking: “Approved as Submitted”.
2. Final-But-Restricted Release: Work may proceed, provided it complies with notations and corrections on submittal and with Contract documents, when submittal is returned with the marking “Approved as Noted”.
3. Returned and Rejected: Do not proceed with Work. Submittal item is not acceptable and may not be used on the Project when noted as “Not Approved”.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

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**Table 01 33 00-1: Partial List of Submittals Provided for the Contractor’s Convenience**

<b>Submittal</b>	<b>Due Date/Sequence</b>	<b>Section &amp; Subpart</b>
<b>Required Prior to Start of Construction</b>		
Project-Progress Schedule	5 working days after issuance of Notice to Proceed. Before Preconstruction meeting. Update every other week or upon request.	00 72 00, 3.02.A, 3.02.D 01 31 00, 1.04.A-C 01 71 23, 1.05.B.1 02 22 00, 1.03.A
Property-Specific Work Schedule	5 working days before construction on each property. Update weekly.	01 10 00, 1.04.B-C, 1.08.B-C
Notice of Work Activities	5 working days prior to commencing work on each property, and if have not worked on a property for 10 working days	01 10 00, 1.04.A, 1.08.A 01 14 13, 1.03.B 01 35 04, 1.01.E 01 71 23, 1.05.B.2 02 22 00, 1.03.A.3 02 41 13, 3.01.A 32 92 23, 3.06.F 32 93 33, 3.07.F 32 93 43, 3.07.F
Surface and Landscape Restoration Quality Control Plan	Before existing conditions assessments and 10 working days prior to start of excavation	02 22 00, 1.03.B
Pre-Construction Surveys	2 working days prior to construction on each property	01 10 00, 1.08.D 01 71 23, 1.05.C 02 22 00, 1.01.B.2
Temporary Controls Work Plan (may combine with SPCC Plan)	5 working days before Pre-Construction meeting. Revise if needed during the contract.	01 50 00, 1.03.A
Excavation Work Plan (in Temporary Controls Work Plan)	5 working days before Pre-Construction meeting. Revise if needed during the contract.	31 23 16, 1.03.A
HASP and Safety Plans with Site Specific COVID-19 Safety Plan	Before Pre-construction meeting and 10 working days prior to construction	00 72 00, 5.07 00 73 00, C 00 73 19, 1.03.A 01 35 29.13, 1.04.A
Construction Quality Assurance Plan	Before Pre-Construction Meeting	01 45 16.13, 1.05.A 01 33 00, 1.04.A,1-2
Site Security Plan	Before Pre-Construction Meeting	01 35 29.13, 1.04.D

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<b>Submittal</b>	<b>Due Date/Sequence</b>	<b>Section &amp; Subpart</b>
Names of Persons Responsible for Safety	Before Pre-Construction Meeting and immediately if a change occurs	01 35 29.13, 1.04.G
CESCL Name and Contact Information	Before Pre-Construction meeting and immediately if a change occurs	01 57 13, 1.04.A
TESC Plan	Before Pre-Construction meeting	01 57 13, 1.04.C
SWPPP and Satisfy Existing NPDES CSWGP Permit Requirements	Prior to start of construction. Revise SWPPP weekly.	01 41 00, 1.04.C.1 01 57 13, 1.04.D
Transfer of Coverage Form	Prior to mobilization to site and within 5 working days of receipt	01 57 13, 3.01.A
SPCC Plan	Prior to start of construction	01 35 29.13, 1.04.E
Spill Prevention and Response Plan (may combine with SPCC Plan)	Prior to start of construction	01 35 29.13, 1.04.E
Updated Contract Drawings based on Existing Conditions Assessments	Prior to start of construction	02 22 00, 1.03.A.2, 1.03.C
Transportation Contractor Qualifications and Contingency and Spill-Control Plan	Prior to start of construction	01 35 29.13, 1.01.E 02 61 13, 1.04.B
Green Cleanup Project Work Plan	Prior to start of construction	01 35 43.10, 1.04, 3.01.A
City of Everett Permits: Right-of-Way Use, Haul Permits, Traffic Control Plans, and/or Stormwater Disposal Permits	As Needed, prior to start of construction	01 41 00, 1.04.C.2-3
Personnel Dust Exposure Control Plan	10 working days prior to commencing excavation	01 35 29.13, 1.04.B
Dust Control Plan	10 working days before excavation	01 57 13, 1.04.F
Documentation of Sod Order	10 working days prior to start of excavation	32 92 23, 1.03.A.1
Facility for Soil Disposal	5 working days prior to start of excavation	02 61 13, 1.06.A

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<b>Submittal</b>	<b>Due Date/Sequence</b>	<b>Section &amp; Subpart</b>
Notification of Installation of TESC Measures	After installing TESC measures and 72 hours before start of excavation. Update schedule as needed.	01 57 13, 3.01.C
Plant Availability Statement	After existing conditions assessments and before commencing earthwork activities	32 93 33, 1.03.A 32 93 43, 1.03.A
<b>Required Before Use</b>		
Product and Material Submittals and Certifications, Test Data, Shop Drawings	Approval required before material delivered to site(s). Allow 10 working days for Ecology review. Submit Final List of Products within 10 working days of Ecology's initial response. Update as needed based on existing conditions assessment and conditions encountered during work.	01 60 00, 1.03 03 30 00, 1.04 31 23 23, 1.03, 2.02 32 14 00, 1.03 32 15 00, 1.03 32 31 00, 1.03 32 32 00, 1.03 32 92 23, 1.03.A-B 32 93 33, 1.03.B 32 93 43, 1.03.B
<b>Ongoing</b>		
Notice of Disputes or Claims with Subconsultants	Immediate Knowledge of Delay	00 72 00, 3.06
Post-Excavation Surveys	Upon completion of excavation and with sufficient time for Ecology review prior to backfill activities	01 71 23, 1.05.D
Quantity Sheets	At time of delivery, or weekly if Ecology's Representative is not on the project site at the time of delivery	01 45 16.13, 1.05.B.1
Weight Tickets	Weekly	01 45 16.13, 1.05.B.2
Waybills, Delivery Tickets, and Bills of Lading	Weekly	31 23 23, 1.03.D
Contractor's Daily Field Reports	Weekly, unless requested by Ecology	01 33 00, 1.04.B.2 01 45 16.13, 1.05.C, 2.01, 3.02
Safety Meeting Minutes	If requested	01 35 29.13, 1.04.H, 3.03.B

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<b>Submittal</b>	<b>Due Date/Sequence</b>	<b>Section &amp; Subpart</b>
NPDES Construction Stormwater General Permit - Discharge Monitoring Reports	Monthly	01 57 13, 3.01.B
Green Cleanup Project Work Plan- Best Practices Documentation	Monthly or upon request	01 35 43.10, 3.01.B
Personnel Monitoring Results	Every 2 months and Final Completion	01 35 29.13, 1.04.C
Permits, Licenses, certifications, inspection reports, etc., including applications and related documentation	Duration of Project	01 40 00, 1.03.A 01 41 00, 1.03.A, 1.04.E
Variations or Discrepancies between Contract Documents and governing codes and regulations	Duration of Project	01 41 00, 1.06.A
Maintenance Log	Upon request by Ecology	32 92 23, 1.03.C, 3.06.E.5 32 93 33, 1.03.C, 3.07.E 32 93 43, 1.03.C, 3.07.E
<b>Before First Pay Submittal</b>		
Statements of Intent to Pay Prevailing Wage	Prior to First Pay Request for general and before invoicing for any Subcontractor work for subs	00 72 00, 5.04
Apprenticeship Utilization Plan	Prior to First Pay Request & each pay request after	00 21 13
List of Subcontractors and Suppliers	Submit with Contract Package and update/revise if needed during the contract	00 72 00, 5.20
Schedule of Values	Within 10 working days of Notice to Proceed and Prior to First Pay Request	00 72 00, 6.02 01 31 00, 1.04.D
<b>Each Pay Submittal</b>		
Application for Payment	Monthly	00 72 00, 6.03 01 20 00, 1.03.A-D
Draft Monthly Pay Estimate	3 working days prior to submittal of Application for Payment	01 20 00, 1.03.A



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<b>Submittal</b>	<b>Due Date/Sequence</b>	<b>Section &amp; Subpart</b>
Statement That Prevailing Wages Were Paid	Certify with each pay request	00 72 00, 5.04.E
Apprenticeship Participation	Submit with each pay request if applicable to the project	00 72 00, 10.12
Subcontractors and Supplier List	Submit with each pay request	00 72 00, 5.20
MWBE Subcontractors and Supplier List	Submit with each pay request	00 72 00, 10.11
Landfill Records	Submit with each pay request or upon request	02 41 13, 1.04.B
Form Documenting Daily Safety Meetings	Submit with each pay request	01 35 29.13, 3.03.B
<b>As Needed (Initiated by the Contractor)</b>		
Requests for Substitutions	No later than 20 working days after Notice to Proceed or at least 10 working days before the use of the substitution on a specific property after work has commenced.	01 25 00, 1.03 01 60 00, 1.07.A
Change Order Proposal	As Needed	00 72 00
Request for Information (RFI)	As Needed	01 26 13, 1.02.B, 3.01
<b>At Ecology Request</b>		
Milestone Progress for Inspections	When Required	01 31 00, 1.03.A
Certified Copy of Payroll	Upon Request	00 72 00, 5.04.G
Change Order Request	As Needed	00 72 00
HASP Incident Report	When Required	01 11 13, 1.03.C.1.b
Emergency Notification of Spill or Release	When Required	01 35 29.13, 1.04.F
Report on Unanticipated Conflicts	When Required	02 41 13, 3.01.F
Schedule of Selective Demolition Activities	Upon Request	02 41 13, 1.04.A
As-Built Surveys	Upon Request and prior to Substantial Completion	01 71 23, 1.05.E 01 77 00, 1.03.D

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 33 00 - SUBMITTAL PROCEDURES**

<b>Submittal</b>	<b>Due Date/Sequence</b>	<b>Section &amp; Subpart</b>
Cumulative Disposal Ticket Summary	Upon Request	01 45 16.13, 1.05.B.2
Disposal and Recycling Documentation	Upon Request	01 35 43.10, 3.04.A
Log of RFIs	Upon Request	01 26 13, 1.02.A
<b>Closeout Procedures</b>		
NPDES Construction Stormwater General Permit Notice of Termination Form	Prior to Final Completion	01 57 13, 3.01.D, 3.08.B
HASP Closeout Reporting	Prior to Final Completion	01 11 13, 1.03.C.1.c
Post-Restoration Survey	30 to 40 working days into Maintenance Period. Submit at least 5 working days before Final Completion Inspection.	01 71 23, 3.05, 3.06 01 77 00, 1.06 Table 01 77 00-1
Project Record	Updated Weekly. Submitted Prior to Final Completion	00 72 00, 4.02 01 77 00, 1.03
Notice of Disputes or Claims with Subconsultants	Prior to Final Acceptance	00 72 00, 6.09.B
MWBE Utilization Summary	Submit with final invoice	00 72 00, 10.11
Permit Completion Documentation	Prior to Final Completion	01 41 00, 3.01.D 01 77 00, 1.10.A
Outstanding Administrative Documents	Prior to Final Completion	01 77 00, 1.11.A
Affidavit of Wages Paid	Required from General and Subcontractors before Notice of Final Acceptance is issued	00 72 00, 5.04.C

**END OF SECTION 01 33 00**

**SECTION 01 35 04**  
**CULTURAL RESOURCE PROCEDURES**

**PART 1 - GENERAL**

**1.01 DESCRIPTION OF WORK**

- A. This section describes the Contractor’s archeological monitoring requirements, duties, and responsibilities during excavation, backfill, and placement work executed as part of the Contract Work.
- B. In order to comply with applicable laws and regulations, particularly 36 CFR Part 800 “Protection of Historic Properties”, which implements Section 106 of the National Historic Preservation Act of 1966, as amended, and Title 27 Revised Code of Washington, Chapter 27.44 Indian Graves and Records, and Chapter 27.53, Archaeological Sites and Resources, archaeological monitoring will be conducted during all phases of the project involving ground-disturbing activities, including remedial excavation and/or backfill and placement.
- C. No cultural resources are known to exist within the Work areas based on prior cultural resource work by Ecology.
- D. Ecology may have a cultural resources observer on site to observe excavation or backfill work as necessary.
- E. The Contractor shall notify Ecology five (5) working days in advance of conducting any excavation or backfill work, so Ecology can arrange for the cultural resources observer.
- F. The Contractor shall stop work as directed by the cultural resources observer to allow the observer to observe and/or sample excavated soils.
- G. There always exists the potential for unanticipated discoveries during excavation work. Contractors, workers, and Ecology must be aware of clues that signify a potential discovery and what actions must be taken to protect discovery. The Contractor shall review and inform their staff of the cultural resource and human skeletal remains information and requirements in **Appendix D01 – Inadvertent Discovery Plan**.
- H. Unanticipated Discovery Procedures:
  - 1. If artifacts or evidence of buried features/midden are discovered during construction, cease work and contact Ecology immediately.
  - 2. Artifacts uncovered during project work shall not be the property of the Contractor.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 35 04 – CULTURAL RESOURCE PROCEDURES**

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- I. Discovery of Human Remains During Construction:
  - 1. If human remains are discovered, work must cease in the area of discovery. Immediately notify Ecology and relevant Agency contacts listed in the **Appendix D01 - Inadvertent Discovery Plan**.

**1.02 REFERENCES AND STANDARDS**

- A. Inadvertent Discovery Plan, Ecology. June 2021. (**Appendix D01**).
- B. Revised Code of Washington (RCW) 27.44.055 - Skeletal Human Remains - Duty to notify - Ground disturbing activities - Coroner determination - Definitions.
- C. State of Washington Governor's Executive Order 21-02 – Archeological and Cultural Resources.

**1.03 SUBMITTALS AND NOTIFICATIONS**

- A. The Contractor shall provide submittals and notifications required by **Appendix D01**.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 CULTURAL RESOURCE CONSTRUCTION PREPARATION**

- A. Ecology will provide an archaeologist to train the Contractor's workers about the identification of and the appropriate procedures to follow in the event of encountering archaeological deposits or human remains. The training is mandatory and will be held before any ground-disturbing activity commences. Assume 30 minutes of training for Contractor crew.
- B. The Contractor's Construction Supervisor(s) shall review **Appendix D01** and inform their staff of the appropriate procedures to follow in the event of encountering archaeological deposits or human remains. The Contractor shall always have the Inadvertent Discovery Plan on site.
- C. In each week's construction safety meeting during these activities, the Construction Supervisor will remind construction personnel of the unanticipated discoveries procedures. Refer to **Appendix D01** referenced above for more details and requirements.
- D. Clues that may signal the presence of cultural resources are:
  - 1. Artifacts: Artifacts may be found exposed in excavated soils. These may range from finished tools such as stone pestles, arrowheads, or polished bone tools to small pieces of exotic stone such as chert, jasper, or obsidian. Historic artifacts

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 35 04 – CULTURAL RESOURCE PROCEDURES**

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include: bottles, cans, bricks, window glass, square nails, or other objects in excess of 50 years of age. Do not remove items.

2. Buried features/midden: During excavation work, buried features may be exposed, such as campfire hearths or shell middens. In cross-section, hearths look like evidence of shallow lenses (saucer shaped) or rock, charcoal, and blackened sediment. Middens are buried prehistoric ground surfaces. These are usually thin lenses of dark, greasy sediments running horizontally for many feet in different directions. Near coastal shorelines, these middens are characterized by accumulations of broken and burned shellfish remains. Occasionally they may also contain artifacts and/or broken bone fragments.

**END OF SECTION 01 35 04**

**SECTION 01 35 29.13**  
**HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR**  
**CONTAMINATED SITES**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Section Includes: Requirements for the Contractor's responsibility for general health and safety while working on the property; requirements for Hazardous Waste Operations and Emergency Response training; and site-specific requirements for site-specific Health and Safety Plans (HASP). The work in this section also includes compliance with all laws, regulations, and ordinances with respect to safety, noise, dust, fire and police action, civil disobedience, security, or traffic.
- B. Site-Specific Hazards: The site contains metals-contaminated soil (especially arsenic and lead, see **Section 02 61 13 – Excavation and Handling of Contaminated Material, 1.03** and Appendices C and D). The Work will involve contact with these soils. The Contractor shall meet Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) rules and Washington State Labor and Industry (L&I) rules, including necessary worker training requirements.
  - 1. Concentrations of arsenic in soil have been measured as high as 274 ppm.
  - 2. Concentrations of lead in soil have been measured up to 1413 ppm.
- C. The project involves direct exposure to soils that could potentially cause a threat to human and ecological receptors. Direct contact, as well as airborne ingestion, are potential concerns during excavation and handling of materials on the Site.
- D. Personnel engaged in hazardous materials work shall be Hazmat, OSHA, and Washington Industrial Safety and Health Act (WISHA) trained and certified per **Section 00 73 19 – Health and Safety Requirements, 1.03, A, 1**. Conduct work associated with known or potentially contaminated materials in accordance with Contractor's site-specific HASP prepared in accordance with **Section 00 73 19 - Health and Safety Requirements**.
- E. Transportation of known or potentially contaminated materials shall be performed by properly licensed, insured, and registered waste haulers that are acceptable to Ecology and in accordance with applicable local, state, and federal regulations for transportation. Transportation Contractor(s) shall submit documentation that demonstrates it is properly licensed and in compliance with applicable Department of Transportation (DOT) regulations, as well as a copy of its contingency and spill-

## **DIVISION 01 - GENERAL REQUIREMENTS**

### **SECTION 01 35 29.13 - HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES**

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control plans describing measures to be implemented in the event of spills or discharges during material handling and transporting. See **Section 02 61 13 - Excavation and Handling of Contaminated Material** for specific requirements.

#### **1.02 RELATED SECTIONS**

- A. Comply with the more stringent of any requirements contained herein or in the following sections:
  - 1. Section 00 72 00 – General Conditions, 5.07 Safety Precautions
  - 2. Section 00 73 00 – Supplemental Conditions (COVID Safety Plan)
  - 3. Section 00 73 19 – Health and Safety Requirements
  - 4. Section 01 57 13 – Temporary Erosion and Sediment Control, 3.06B Dust Control Monitoring
  - 5. Section 02 61 13 – Excavation and Handling of Contaminated Soil

#### **1.03 REFERENCES**

- A. Order of precedence. Where a conflict arises between health and safety standards, the most stringent standard shall take precedence. Where a conflict arises between standards in this Specification and the Contract Drawings, the most stringent standard shall take precedence.
- B. Codes and Standards (including but not limited to):
  - 1. WISHA, Chapter 49.17 Revised Code of Washington (RCW)
  - 2. Safety and Health Core Rules, Chapter 296-800 Washington Administrative Code (WAC)
  - 3. Hazardous waste operations and emergency response, 29 CFR 1910.120, OSHA 29 U.S. Code Chapter 15.
  - 4. WAC 173-340-810 Worker safety and health, Model Toxics Control Act.
  - 5. Dangerous Waste Regulations, Chapter 173-303 WAC.

#### **1.04 SUBMITTALS**

- A. Site-specific HASP per the requirements in **Section 00 73 19 - Health and Safety Requirements**. Include copies of site worker's HAZWOPER training certificates and certificates of refresher courses taken within the prior calendar year (for those individuals for whom the HAZWOPER training is required).
- B. Personnel Dust Exposure Control Plan

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1. Personnel Dust Exposure Control Plan, including personnel air monitoring, shall be prepared by an Industrial Hygienist licensed in the State of Washington. Submit a minimum of ten (10) working days prior to commencing excavation Work at the Project Site.
- C. Monitoring Results
1. Electronic copies of monitoring results shall be submitted to Ecology at the end of the project. Ecology will provide an electronic file example depicting the format for electronic delivery of data, and the Contractor shall format all data into the required format. Erroneously formatted data shall be reformatted and resubmitted.
  2. Personnel Monitoring Results: The Contractor shall submit all personal monitoring results required under the Arsenic and Lead Rules to Ecology every 2 months.
- D. Site Security Plan: The Contractor shall submit a Site Security Plan that identifies methods to prevent access to all work areas by the general public. Site plan shall include access control fencing locations, access routes and staging areas, material loading and unloading areas, signage for traffic control, and other relevant features. Provide this plan for review and approval prior to the Pre-Construction Meeting.
- E. Spill Prevention, Control, and Countermeasure (SPCC) and Response Plans. The Contractor shall submit a SPCC Plan prior to the start of any Work to Ecology for review and comment. This plan may be combined with the Spill Prevention and Response Plan. The combined plan shall address all items identified later in this section for each plan and include at least the following:
1. Narrative description of the proposed construction methods, materials, and equipment to be used for Work.
  2. Assessment and listing of hazardous materials and/or potential contaminants that could be released during execution of Work.
  3. Safety Data Sheets (SDS; per requirements of WAC 296-901-14014) with cleanup instructions for potential contaminants.
  4. Spill response/cleanup materials and instructions for use.
  5. Procedures and precautions to prevent spills.
  6. Spill response training for on-site personnel, including the location of the containment and cleanup materials at site.
- F. Emergency notification in case of a spill or release. Ecology, property owner and Engineer must be included on list of notified.



## **DIVISION 01 - GENERAL REQUIREMENTS**

### **SECTION 01 35 29.13 - HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES**

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- G. Competent Person(s): The Contractor shall submit the name(s) of the designated competent person/officer in charge of health and safety (see Part 3). Update Ecology immediately with new names if a change occurs.
- H. Safety meeting: Submit daily tailgate safety meetings/job safety briefing minutes upon request (Article 3.03).

## **PART 2 - PRODUCTS**

- A. See **Section 00 73 19 – Health and Safety Requirements.**

## **PART 3 - EXECUTION**

### **3.01 GENERAL**

- A. In accordance with generally accepted construction practice, applicable law and the **Section 00 72 00 – General Conditions**, the Contractor shall be solely and exclusively responsible for:
  - 1. Construction means and methods.
  - 2. Safety of employees engaged in the work while on and off the site, and others who may visit the site or be affected by the work.
  - 3. Safety of the public with respect to the work areas, access and staging areas, and transportation corridors.
  - 4. Safety of the work itself, including material and equipment to be incorporated therein.
  - 5. Protection of site property or adjacent property.
  - 6. Safety programs, equipment, and protective devices required to ensure the safety of people and protection of property for whom/which the Contractor is responsible.
- B. The duties of Ecology in conducting review of the Contractor's performance are not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing, scaffolding, or safety measures in, on, or near the construction site.
- C. The Contractor is hereby informed that work on this project could be hazardous. Contractor shall comply with applicable laws and regulations including State, Federal OSHA, and other regulations referenced in these Contract Documents.
- D. At all times, maintain the job in a condition that is safe for Ecology to make site visits and to conduct construction reviews. If Ecology cannot allow personnel to visit the job because it is not safe, the Contractor is not providing required safe access to the Work as required.

## **DIVISION 01 - GENERAL REQUIREMENTS**

### **SECTION 01 35 29.13 - HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES**

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#### **3.02 CERTIFICATION, ORIENTATION, AND TRAINING REQUIREMENTS**

- A. Contractor shall disclose/orient personnel working on site of all hazards in accordance with **Section 00 73 19 - Health and Safety Requirements, 1.04.**
- B. Personnel working on site are required to received 40-hour HAZWOPER training in accordance with OSHA 29 CFR 1910.120 and be current in annual refresher training. Submit certificates of personnel training to Ecology prior to the pre-construction meeting and updated during the project as needed for personnel changes.
- C. Contractor shall provide a competent person designated as the Site Safety and Health Officer in accordance with **Section 00 73 19 - Health and Safety Requirements, 1.04.**

#### **3.03 HEALTH AND SAFETY PLAN REQUIREMENTS**

- A. Prepare and submit a site-specific HASP in accordance with **Section 00 73 19 - Health and Safety Requirements.**
- B. Conduct daily tailgate safety meetings/job safety briefings, and prepare minutes to submit to Ecology if requested. The Contractor shall prepare his/her own form on which to document daily safety meetings. This form shall be completed each workday and filed as part of the project record and be submitted as part of the progress payment request.
- C. If Health and Safety issues arise frequently, the Contractor may be required to provide a full-time Health and Safety professional on site, at the expense of the Contractor, to ensure compliance with all applicable Health and Safety rules and regulations.

#### **3.04 PERSONAL PROTECTIVE EQUIPMENT**

- A. The work site is designated for Level C personal protective equipment as defined by OSHA. If site conditions permit after construction starts, downgrading to Level D may be allowed if agreed by Ecology.
- B. All workers shall, as a minimum, wear the following personal protective equipment at all times while at the site:
  - 1. Hard hat (ANSI Z89.1) with reflective tape and six-point suspension
  - 2. Safety glasses (ANSI Z87.1) with permanently affixed side shields
  - 3. Retro reflective safety vest
  - 4. Steel-toed, at least ankle-high lace-up, defined heel safety boots (ANSI Z41.1, Class 75)
  - 5. Gloves as appropriate for work duties.

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**SECTION 01 35 29.13 - HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES**

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- C. All workers shall wear personal floatation devices if working over or near water. Water rescue equipment and devices are also required and shall be provided by the Contractor.

**3.05 MINIMUM SITE-SPECIFIC PROTECTIVE MEASURES**

- A. Contamination Reduction
  - 1. Maintain a boot-wash facility at personnel exit areas from the work zone at each property. Change water daily and maintain a clean wash station.
  - 2. All Contractor personnel exiting the work area shall use the boot wash.
  - 3. The Contractor's boot wash shall be maintained in good condition and shall be made available for use to all site visitors, Ecology staff and representatives, regulatory agency staff, cultural resources observer(s) and other project personnel.
- B. Respiratory Protection
  - 1. Contractor personnel working within the remediation area shall wear dust-protecting respirators from inception of earthwork until at least two dust samples collected during no less than the first two working days of excavation show acceptable levels for discontinuing respiratory use.
  - 2. Provide letter from a certified industrial hygienist (CIH) licensed in Washington State stating that he/she has reviewed the dust sampling results and approves discontinuing respirator use.
  - 3. Continue air monitoring as required and re-instate respirator requirement in the event any samples exceed criteria as stated in HASP. Re-instated respirator use shall continue until at least two dust samples collected during no less than two working days of excavation show acceptable levels for discontinuing respiratory use.

**3.06 FIRST AID**

- A. The Contractor shall have available at all times at the site at least one person holding a valid certificate of first-aid training. A valid first-aid certificate is one that is less than three (3) years old. The Contractor's crew leaders, supervisors, or persons in direct charge of crews (i.e., a group of two [2] or more employees working at the site) shall possess a valid first-aid certificate.
- B. The Contractor shall provide first-aid supplies at the work site for its employees as required by WAC 296-155-125.

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**3.07 SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC)**

- A. The Contractor shall be responsible for prevention, containment, and cleanup of spilled oil, fuel, and other petroleum products used in the Contractor's operations. All such prevention, containment, and cleanup costs shall be borne by the Contractor. The Contractor shall prepare a SPCC Plan prior to the start of construction activity.
- B. All pollutants other than sediment that occur on site during construction shall be handled and disposed of in a manner that does not contaminate stormwater or surface water. Fueling of Contractor's equipment shall be performed away from storm drain outlets. Extreme care shall be taken to prevent fuel spills. A Contractor's representative shall be present at all times when equipment is being fueled. In the event of a spill, the Fire Department or Coast Guard shall be called. Absorbent oil pads and drip pans shall be placed beneath the vehicle being fueled and under parked vehicles (overnight and otherwise).
- C. The Contractor is advised that discharge of oil from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.
- D. The Contractor shall, at a minimum, take the following measures regarding oil spill prevention, containment, and cleanup.
  - 1. Fuel hoses, lubrication equipment, hydraulically operated equipment, oil drums, and other equipment and facilities shall be inspected regularly for drips, leaks, or signs of damage, and shall be maintained and stored properly to prevent spills. Proper security shall be maintained to discourage vandalism.
  - 2. All land-based oil and product storage tanks shall be diked, contained, and/or located to prevent spills from escaping into the water. Diking and containment area surfaces shall be lined with impervious material to prevent oil from seeping through the ground and dikes.
  - 3. All visible floating oils shall be immediately contained with booms, dikes, or other appropriate means and removed from the water prior to discharge into state waters. All visible oils on land shall be immediately contained using dikes, straw bales, or other appropriate means and removed using sand, ground clay, sawdust, or other absorbent material, which shall be properly disposed of by the Contractor. Waste materials shall be temporarily stored in drums or other leak-proof containers after cleanup and during transport for disposal. Waste materials shall be disposed of off-site in accordance with applicable local, state, and federal regulations.
  - 4. In the event of any oil or product discharges into public waters, or onto land with a potential for entry into public waters, the Contractor shall immediately notify the parties as indicated in Article 3.08.
- E. The Contractor shall maintain the following materials (as a minimum) at all times:

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**SECTION 01 35 29.13 - HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES**

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1. Oil-absorbent booms/logs: Four (4) each, 5-feet long
2. Oil-absorbent pads or bulk material adequate for coverage of 200 square feet of surface area
3. Oil dry all, gloves, and plastic bags
4. 5-gallon buckets
5. Shovels

F. The Contractor shall maintain a copy of the SPCC on each site at all times.

**3.08 SPILL RESPONSE**

- A. Implement the spill response plan. Maintain copies of all safety data sheets (SDS) at the site for chemicals on site including fuels, cleaners, fertilizers, and other chemical materials.
1. Comply with all applicable codes and ordinances for spill prevention and response.
  2. Provide appropriate spill-response materials including, but not limited to, the following: containers, adsorbents, shovels, and personal protective equipment. Spill-response materials shall be available at all times when contaminated materials/wastes are being handled or transported. Spill-response materials shall be compatible with the type of materials and contaminants being handled.
  3. Emergency Spill Response Notification: Notify Ecology of any spill of fuel or hazardous substance, regardless of quantity.
  4. Under state law, Ecology must be notified when any amount of regulated waste or hazardous material that poses an imminent threat to life, health, or the environment is released to the air, land, or water, or whenever oil is spilled on land or to waters of the state. The spiller is always responsible for reporting a spill. Failure to report a spill in a timely manner may result in enforcement actions. If you are not responsible for a spill, making the initial notification does not make you liable. However, please consult with Ecology's response team before attempting any type of response or cleanup. Also notify Ecology's representative, the property owner, and the Engineer.
  5. If oil or hazardous materials are spilled to state waters, the spiller must notify Ecology, state, and federal spill response agencies. The contact information for these entities are:
    - a. Ecology Representative Sandra Matthews (425-223-1999)
    - b. Engineer (Ecology's Representative) John Bingham, Hart Crowser (425-329-1161)

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- c. State - Washington Emergency Management Division (EMD) - 1-800-258-5990 or 1-800-OILS-911; and
- d. Federal - National Response Center (NRC) - 1-800-424-8802;
- e. The appropriate **Ecology Regional Office** for your county (**noted below**). An Ecology spill responder will normally call the reporting party back to gather more information. The agency will then determine its response action. Also notify the Ecology Project Manager and Engineer assigned to the project.
  - 1) **Northwest Regional Office - 1-206-594-0000**  
(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties).

**END OF SECTION 01 35 29.13**

**SECTION 01 35 43.10**  
**GREEN CONSTRUCTION PRACTICES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Cleaning up contaminated sites involves the use of energy, water, and other natural resources. Site cleanup activities can create an environmental footprint beyond the site itself. Because the environmental footprint of a remediation activity may exceed the Site physical boundary, Green Remediation best management practices (BMPs) can be used to minimize the footprint and maximize environmental outcomes.
- B. Ecology desires to minimize its environmental impact in all phases of cleanup actions, including construction, and refers to this as Green Remediation. To meet this intent, to the extent practicable, the Contractor shall explore and implement green remediation strategies and applications in the performance of the requirements of this project to maximize use of sustainable construction practices, reduce energy and water usage, promote demolition and construction materials reuse and recycling and use of recycled content materials, and minimizing impacts from site cleanup activities through controls on construction activities to preserve and protect our land, air, and water resources.
- C. These guiding principles are the foundation for developing and implementing green construction practices:
  - 1. Minimize total energy use and increase the percentage of energy use from renewable resources.
  - 2. Minimize air pollution and greenhouse gas emissions.
  - 3. Reduce water use and negative impacts on water resources.
  - 4. Improve materials management and reduce, reuse, and recycle material and waste.
  - 5. Protect ecosystems during site cleanup.
  - 6. Consider climate change.

**1.02 RELATED SECTIONS**

- A. Section 01 25 00 - Substitution Procedures
- B. Section 01 33 00 - Submittal Procedures
- C. Section 01 50 00 - Temporary Facilities and Controls

**DIVISION 01 – GENERAL REQUIREMENTS**  
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- D. Section 01 57 13 - Temporary Erosion and Sediment Control
- E. Section 01 60 00 - Product Requirements
- F. Section 01 74 19 - Construction Waste Management and Disposal
- G. Divisions 2 - 32: See Part 2 - Products for Material Requirements in each Section

**1.03 REFERENCES**

- A. ASTM E 2893-16(E1) Standard Guide for Greener Cleanups.

**1.04 SUBMITTALS**

- A. Green Cleanup Project Work Plan.
- B. The Contractor shall be submitting a Green Cleanup Project Work Plan in accordance with Pre-Construction Submittals listed under **Section 01 33 00 - Submittal Procedures**.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 GREEN CLEANUP PROJECT WORK PLAN**

- A. Prior to start of work, the Contractor shall submit a Green Cleanup Project Work Plan that shall identify and describe each green remediation practice it proposes to use and how it will be implemented, to include those practices that are required by the contract documents and those that are proposed by the Contractor. This plan will include, at a minimum, practices that:
  - 1. Incorporate equipment emission reduction controls and describe procedures for equipment operations that identify measures to operate equipment to minimize emissions including engine idling reduction procedures, use of biodiesel and/or ultra-low sulfur fuels only, and use clean technology equipment designed to reduce exhaust emissions.
  - 2. Minimize transportation requirements on the project by use of the least impacting transportation methods practical, combining trips, use of backhaul.
  - 3. Maximize use of products containing recycled materials (i.e., compost materials; concrete, backfill material, erosion control materials) that satisfy the specified performance requirements for project materials, and procedures for material recycling, reuse, and waste minimization.
  - 4. Use material suppliers that are in close proximity of the project work sites.
  - 5. Use, to the maximum extent possible, the Green and Sustainable Site Cleanup BMPs from the list provided herein, and describe how they will be implemented.



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 35 43.10 – GREEN CONSTRUCTION PRACTICES**

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- B. The Plan shall include a format for reporting/documenting best practices used on the project as part of the Contractor's periodic submittals noted below, submitted at the frequency per **Section 01 33 00 – Submittal Procedures, 1.04B** and **Table 01 33 00-1**, that include the following measures:
1. Equipment inventory and emission reduction controls on each piece of equipment.
  2. Equipment use based on hour meters.
  3. Total quantity of fuel in gallons used each week and type of fuel used.
  4. Disposal of construction wastes as identified in Article 3.04. The Contractor shall include a section on materials reuse, recycling, waste stream reduction, and resource conservation measures employed as part of the weekly project progress reports. This section will document what measures are in place to keep uncontaminated wastes out of landfills or disposal facilities. These actions are intended to conserve energy or other natural resources, thereby reducing negative impacts of a cleanup action.

**3.02 PROTECTION OF LAND, AIR, AND WATER RESOURCES**

- A. Contractor shall consider and incorporate both temporary and permanent site controls to minimize impacts from site clearing, excavation, backfill, and grading operations that should include:
1. Minimizing noise created over ambient noise levels.
  2. Use of dust control measures.
  3. Retaining construction water runoff and developing a method for reuse of water on site or use of recycled water for equipment wash down and dust control.
  4. Disposal of construction debris at recycling centers.
  5. Following erosion and sediment control practices including silt curtains and other similar barriers to prevent silt laden runoff from stormwater or other sources from leaving the project site without treatment.
  6. Maintaining a responsive oil spills cleanup capability including materials on site.
  7. No burning of any kind on the project site.
  8. Use of native landscape materials, plastic sheeting, and recycled wood waste mulches to stabilize construction sites and minimize erosion.

**3.03 EQUIPMENT EMISSIONS CONTROLS**

- A. The Contractor shall implement the following actions, as applicable, to reduce equipment exhaust emissions from the project site and include them in the Green Construction Work Plan.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 35 43.10 – GREEN CONSTRUCTION PRACTICES**

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1. Alternative Fuel Use and Clean Technologies: The Contractor is encouraged to use clean technologies and/or fuels on all diesel equipment to the extent practicable and/or feasible. The preference is for clean diesel technologies, but alternative fuels, such as biodiesel, ultra-low sulfur diesel fuel, or natural gas-powered vehicles are acceptable options. These alternative fuels will be used where they are available within a reasonable distance to the sites. For equipment retrofits, the Contractor will employ the Best Available Control Technology on non-road and on-road diesel-powered equipment used at a site. Examples of clean diesel technologies include diesel particulate filters (DPFs), and diesel oxidation catalysis (DOCs). For alternative fuel usage, the Contractor shall use commercially available biodiesel blends, with the goal to use at least a B20 blend (i.e., 20% biodiesel and 80% petro diesel) or ultra-low sulfur diesel fuels, in the equipment engines that are used at the site.
2. No-Idle Practices: In addition to using alternative fuel, the Contractor shall use methods to control nuisance odors associated with diesel emissions from construction equipment including the following:
  - a. Turning off diesel combustion engines on construction equipment not in active use, and on trucks that are idling while waiting to load or unload material for 5 minutes or more; and
  - b. Locating diesel equipment away from the general public and sensitive receptors.
  - c. Idling of diesel-powered vehicles and equipment must not be permitted during periods of non-active vehicle use. Diesel-powered engines shall not be allowed to idle for more than 5 consecutive minutes in a 60-minute period when the equipment is: not in use, occupied by an operator, or otherwise in motion, except as follows:
    - 1) When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control.
    - 2) When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment.
    - 3) To bring the equipment to the manufacturers recommended operating temperature.
    - 4) When the ambient temperature is below forty (40) degrees Fahrenheit (F) or above eighty (80) degrees F.
    - 5) When equipment is being repaired.
3. Clean Air Technologies: In performance of all activities under this contract, the Contractor shall, where feasible, use cleaner engines, cleaner fuel and cleaner diesel control technology on diesel-powered equipment with engines greater than

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 35 43.10 – GREEN CONSTRUCTION PRACTICES**

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50 horsepower whether the equipment is owned or rented. Cleaner engines include non-road engines meeting Tier 1 or cleaner standards and on-road engines meeting 2004 On highway Heavy Duty Engine Emission Standards or cleaner, whether the equipment is owned or rented. Cleaner fuels include biodiesel blends or ultra-low sulfur diesel. Cleaner diesel control technology includes EPA or California Air Resources Board (CARB) verified DPFs or DOCs.

4. Engine Maintenance: Contractors perform routine and scheduled engine inspections and conduct preventative maintenance, giving any problems identified immediate attention. Perform routine engine cleaning and use environmentally friendly lubricants (i.e., bio-based) where available and where specified as an approved lubricant by engine and equipment manufacturers.
5. Transportation Alternatives: The Contractor shall transport material to and from the site by truck, rail, barge, or other method or a combination of methods as site requirements may dictate, and when feasible, to an Ecology-approved facility in accordance with local, state, and federal regulations.

**3.04 CONSTRUCTION MATERIALS HANDLING AND DISPOSAL**

- A. Disposal of Construction Demolition Debris and Unsuitable Materials: To the greatest extent possible, the Contractor shall minimize the amount of waste disposal in landfills by seeking opportunities to reduce, reuse or recycle demolition materials that are not contaminated by hazardous substances. The Contractor shall dispose of uncontaminated, recyclable, or salvable demolition materials by a combination of salvage, reuse, or recycling at a facility approved by the Department of Ecology. The Contractor shall submit receipts, scale tickets, and/or waybills to Ecology documenting disposal and/or recycling. Recyclable materials may include building materials such as lumber and other wood products, metal, concrete, rebar, pipe materials, and asphalt, but shall not include materials impacted by contaminated soils.

**3.05 GREEN REMEDIATION AND SUSTAINABLE BEST MANAGEMENT PRACTICES**

- A. **Table 01 35 43.10-1**, below, identifies the BMPs that the Contractor shall incorporate, where practical, into the project requirements.

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**Table 01 35 43.10-1: Green Remediation and Sustainable Best Management Practices**

Action	Potentially Applicable to Site?	Potential Benefits			
		Air	Energy	Water	Land
Use alternate fuels such as biodiesel, ultra-low sulfur diesel, and E85.	Yes	Reduces air emissions from on-site construction equipment and from trucking waste materials.	Reduces use of petroleum products in on-site construction equipment and in trucking waste materials.	This action is not applicable to the above category.	Less toxic to the environment should a leak occur.
Require vehicles and construction equipment to use idle reduction technologies	Yes	Reduces direct and indirect green-house gas and other emissions, e.g., CO, CO <sub>2</sub> , VOCs, NO <sub>x</sub> , SO <sub>x</sub> .	Reduces fuel use in on-site construction equipment and vehicles.	This action is not applicable to the above category.	Reduces noise impacts.
Sequence work to minimize double-handling of materials.	Yes	Reduces air emissions from on-site construction equipment. Reduces nuisance dust.	Reduces fuel use in on-site construction equipment.	Reduces water quality impacts from erosion	Restores land sooner.
Use on-site renewable energy to power elements of the remedy, e.g., wind and solar power for treatment system.	No	This action is not applicable to the above category.	Reduces purchased energy.	This action is not applicable to the above category.	May be an asset to redevelopment if left on site after cleanup.
Purchase green energy to power elements of the remedy	No	Reduces air impacts of cleanup.	This action is not applicable to the above category.	This action is not applicable to the above category.	This action is not applicable to the above category.
Use permeable surface soil barriers, e.g., vegetated topsoil or gravel	No	This action is not applicable to the above category.	This action is not applicable to the above category.	Reduces stormwater runoff	Increases post cleanup marketability of developable sites.

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Action	Potentially Applicable to Site?	Potential Benefits			
		Air	Energy	Water	Land
Reclaim grey water for reuse.	No	This action is not applicable to the above category.	This action is not applicable to the above category.	Reduces water use.	This action is not applicable to the above category.
Use engineered surface soil barriers, e.g., pavement, cover system.	No	Reduces air emissions from on-site construction equipment and from trucking.	Reduces fuel use in on-site construction equipment and in trucking waste materials.	This action is not applicable to the above category.	Reduces waste material requiring off-site disposal.
Use in-situ remediation technologies (e.g., monitored natural attenuation; chemical oxidation).	No	May reduce air emissions by reducing excavation and materials handling.	Reduces fuel use in on-site construction equipment and in trucking waste materials.	This action is not applicable to the above category.	Less intrusive, especially if structures present like roads, utilities and valuable buildings.
Use cleanup technologies that permanently destroy contaminants (incineration, treatment).	No	This action is not applicable to the above category.	May be more energy intensive.	This action is not applicable to the above category.	Reduces future contaminant migration concerns; eliminates need for long term maintenance and monitoring.
Use treated soils to backfill excavation.	No	Reduces emissions from trucking in clean fill.	This action is not applicable to the above category.	This action is not applicable to the above category.	Reduces clean fill material requirements.
Retain existing structures on site.	Yes	Reduces air emissions from demolition activities.	Reduces fuel used for demolition and in trucking wastes off site.	This action is not applicable to the above category.	Preserves structures for future redevelopment; provides link to the past.
Recycle waste materials generated during cleanup	Yes	This action is not applicable to the above category.	This action is not applicable to the above category.	This action is not applicable to the above category.	Reduces material requiring off-site disposal

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<b>Action</b>	<b>Potentially Applicable to Site?</b>	<b>Potential Benefits</b>			
		<b>Air</b>	<b>Energy</b>	<b>Water</b>	<b>Land</b>
Collect rainwater for on-site use e.g., dust control.	Yes	This action is not applicable to the above category.	This action is not applicable to the above category.	Reduces water use; stormwater impacts.	This action is not applicable to the above category.
Install temporary dewatering systems to lower groundwater.	No	This action is not applicable to the above category.	This action is not applicable to the above category.	Reduces potential ground and surface water impacts.	Better control of limits of excavation.

**END OF SECTION 01 35 43.10**

**SECTION 01 40 00  
QUALITY REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Section includes administrative and procedural requirements for quality assurance and quality control.

**1.02 RELATED SECTIONS**

- A. Section 01 45 16.13 - Contractor Quality Control

**1.03 SUBMITTALS**

- A. Reports and Documents
  - 1. Permits, Licenses, and Certificates: For Ecology's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

**1.04 LISTED OR APPROVED SOURCES**

- A. The listing of material and/or product sources or manufacturers in these specifications is not a guarantee that the material in all manner is acceptable or commercially available. The Contractor shall confirm that materials and/or products are available and meeting the requirements in the Project Manual at the time of bidding and use.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 40 00**

**SECTION 01 41 00**  
**REGULATORY REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This section discusses permit, code, and regulatory requirements.

**1.02 RELATED SECTIONS**

- A. Section 00 72 00 - General Conditions, Article 5.02 Permits, Fees, Notices
- B. Section 01 57 13 - Temporary Erosion and Sediment Control

**1.03 SUBMITTALS**

- A. Permits and licenses the Contractor submits to regulatory agencies.

**1.04 PERMITS**

- A. Exempt Permits: The following list identifies permits that this Ecology project is exempt from meeting procedural requirements (Reference: RCW 70.105D.090 Remedial Actions - Exemption from procedural requirements), but shall meet the substantive requirements. The Contractor does NOT have to apply for the following permit(s).
  - 1. City of Everett grading permit.
- B. Permits transferred to the Contractor: The following permit(s) shall be transferred to the Contractor from Ecology upon issuing notice to proceed (NTP). The Contractor shall pay for, obtain, maintain, and conform to the following listed permits and additional or other applicable permits, codes, and regulations as may govern work.
  - 1. Ecology has a National Pollution Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSWGP) permit for the Everett Smelter area (**Appendix B**) that will be transferred to the Contractor during construction.
- C. Permits to be obtained by the Contractor: The Contractor shall apply and pay for, obtain, maintain, and conform to the following listed permits and additional or other applicable permits, codes, and regulations as may govern work. Obtain permits prior to the start of construction.
  - 1. Create a Surface Water Pollution Prevention Plan (SWPPP) and satisfy existing NPDES CSWGP permit requirements that Ecology has for the Everett Smelter



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 41 00 - REGULATORY REQUIREMENTS**

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area (see Paragraph C above) as described in **Section 01 57 13 - Temporary Erosion and Sediment Control**.

2. Storm water disposal from the Project site shall be obtained from the City of Everett in accordance with City of Everett standards and the Project NPDES CSWGP permit (see Paragraph C above).
  3. As Needed: Right-of-Way Use, Haul permits, and/or Traffic Control Plans (submitted to and approved by City of Everett).
- D. Submit copies of any license or permit applications, or other regulatory documentation, to Ecology when submitted to local jurisdictions or authorities.
- E. Obtain and pay fees for licenses, permits, inspections, discharges, and approvals required by laws, ordinances, and rules of appropriate governing or approving agencies necessary for proper completion of Work.

**1.05 CODES AND REGULATIONS**

- A. Conform to the current applicable codes, regulations and standards, which is the minimum standard of quality for material and workmanship. Provide labor, materials, and equipment necessary for compliance with code requirements or interpretations, although not specifically detailed in the Contract Drawings or specifications. Be familiar with applicable codes and standards prior to bidding.
- B. Process through Ecology or Ecology Representative, requests to extend, modify, revise, or renew any of the permits or approvals provided by Ecology (listed above). Furnish requests in writing and include a narrative description and adequate Contract Drawings to clearly describe and depict proposed action. Do not contact regulatory agency with requests for permit extensions, modifications, revisions, or renewals without the prior written consent of Ecology.

**1.06 VARIATIONS WITH CODES, REGULATIONS AND STANDARDS**

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

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 41 00 - REGULATORY REQUIREMENTS**

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**1.07 COORDINATION WITH REGULATORY AGENCIES**

- A. For Contractor obtained permits and approvals, coordinate Work with appropriate governing or regulating authorities and agencies.
- B. Provide advance notification to proper officials of Project schedule and schedule revisions throughout Project duration, in order to allow proper scheduling of inspection visits at proper stages of Work completion.
- C. Regulation coordination is in addition to inspections conducted by Ecology. Notify Ecology of scheduled inspections involving outside regulating officials, to allow Ecology to be present for inspections.
- D. The Contractor shall be responsible for adhering and conforming to all applicable provisions, conditions, and requirement of the permits listed in the specifications. Any conflict between these contract specifications and issued permits will be brought to the attention of Ecology and the Engineer. Nothing whatsoever shall be deemed to authorize violation of these permits. Permits, approvals, certification, or orders for excavation and disposal work under this contract from the entities listed below will be issued prior to Notice of Award, and copies will be provided to the Contractor prior to Notice to Proceed:
  - 1. Permits in Article 1.04

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 PERMIT COMPLIANCE**

- A. Comply with the terms and conditions of all permits.
- B. Notify Ecology within 24 hours regarding any non-compliance with permits.
- C. Close out all permits in accordance with permit terms and conditions before Final Completion.
- D. Submit documentation of permit completion including sign-off by permit issuers prior to Final Completion.

**END OF SECTION 01 41 00**

**SECTION 01 42 00**  
**REFERENCES**

**PART 1 - GENERAL**

**1.01 DEFINITIONS**

- A. The following definitions are relevant to Division 01. See **Section 00 72 00 – General Conditions, Part 1 for Division 00** definitions.
1. “General”: Basic Contract definitions are included in the General Conditions of the Contract.
  2. “Approved”: When used to convey Ecology or Engineer’s action on Contractor’s submittals, applications, and requests, “approved” is limited to Ecology or Engineer’s duties and responsibilities as stated in the Conditions of the Contract.
  3. “Decision Unit”: Sampling area within a property used to determine excavation depth for construction based on analytical sampling results.
  4. “Directed”: A command or instruction by Ecology or Engineer. Other terms including “requested”, “authorized”, “selected”, “required”, and “permitted” have the same meaning as “directed”.
  5. “Indicated”: Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including “shown”, “noted”, “scheduled”, and “specified” have the same meaning as “indicated”.
  6. “Regulations”: Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
  7. “Furnish”: Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
  8. “Install”: Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
  9. “Project” refers to the overall completion of all work to cleanup all properties included in the work.
  10. “Provide”: Furnish and install, complete and ready for intended use.
  11. “Project Engineer”, “Engineer”, and “Engineer’s designated inspector” are interchangeable terms.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 42 00 - REFERENCES**

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12. “Properties”, “parcels”, or “sites” refer to, in aggregate, all of the locations where work is being completed. Property, parcel, or site refers to an individual location where work is being completed, and includes associated work areas such as rights-of-ways, alleys or streets or adjacent properties used for loading, access, and staging, or similar use.

Submittal Category Definitions:

1. “Shop Drawings”: As defined in **Section 00 72 00 - General Conditions**, Paragraph 4.03.
2. “Product Data”: Standard printed information on materials, products and systems; not specifically prepared for this Project, other than the designation of selections from among available choices printed therein.
3. “Samples”: Fabricated and un-fabricated physical examples of materials, products and units of Work; both as completed units and as smaller portions of units of Work; either for limited visual inspection or (where indicated) for more detailed testing and analysis.
4. “Miscellaneous”: Submittals related directly to the Work (non-administrative) include warranties, informational, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical Work records, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the Work and not processed as Shop Drawings, Product Data or Samples.
5. “Latest Acceptance Date” is the latest date for acceptance of the submittal by the Engineer considering the specified or logical inter-relationship of the work elements. If submittals are not accepted by the “Latest Acceptance Date”, a delay in the project could result. The Contractor shall prepare and submit submittals as quickly as possible and shall plan for time for the Engineer’s review and plan for the possibility that submittals might be rejected or only partially approved on first submittal, such that re-submittal and re-review is required.

**1.02 GENERAL**

- A. Applicable standards of the construction industry have the same force and effect (and are made a part of the Contract Documents by reference) as if directly copied or bound herein.

**1.03 PUBLICATION DATES**

- A. When compliance with an industry standard is required, comply with the standard in effect on Bid Date.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 42 00 - REFERENCES**

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**1.04 ABBREVIATIONS AND NAMES**

A. The following acronyms or abbreviations, referenced in the Contract documents, are defined to mean the associated name. Applicable standards include, but are not limited to the following:

1. ACI American Concrete Institute
2. ANSI American National Standards Institute
3. CESCL Certified Erosion and Sediment Control Lead
4. CPSC U.S. Consumer Product Safety Commission
5. CRZ Critical root zone
6. CSWGP Construction Stormwater General Permit
7. DOSH L&I, Division of Occupational Safety and Health
8. Ecology Washington State Department of Ecology
9. EPA U.S. Environmental Protection Agency
10. ESC Erosion and Sediment Control
11. IBC International Building Code
12. L&I Washington State Department of Labor & Industries
13. MTCA Model Toxics Control Act
14. NTP Notice to Proceed
15. NPDES National Pollution Discharge Elimination System
16. PCBs Polychlorinated biphenyls
17. PLS Professional Land Surveyor
18. OSHA U.S. Occupational Safety & Health Administration
19. RCRA Resource Conservation and Recovery Act
20. RCW Revised Code of Washington
21. SDS Safety Data Sheet
22. SEPA State Environmental Policy Act
23. SVOCs Semi-volatile organic compounds
24. SWMMWW Stormwater Management Manual for Western Washington
25. SWPPP Stormwater Pollution Prevention Plan
26. TESC Temporary Erosion and Sediment Control

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 42 00 - REFERENCES**

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- 27. TPH Total petroleum hydrocarbons
- 28. USDA United States Department of Agriculture
- 29. UST Underground storage tank
- 30. VOCs Volatile organic compounds
- 31. WAC Washington Administrative Code
- 32. WDA Waste Disposal Authorization
- 33. WISHA Washington Industrial Safety and Health Act
- 34. WSDOT Washington State Department of Transportation

B. Typical abbreviations for units include, but are not limited to the following:

- 1. CFM or cfm cubic feet per minute
- 2. CY or cy cubic yard or cubic yards
- 3. FPM or fpm feet per minute
- 4. FT or ft foot or feet
- 5. Gal or gal gallons
- 6. IN or in inch or inches
- 7. LBF or lbf pounds force
- 8. LF or lf lineal foot
- 9. LS lump sum
- 10. PCF or pcf pounds per cubic foot
- 11. PPM or ppm parts per million (typically mg/kg for mass)
- 12. Pts or pts points
- 13. SF or sf square foot or square feet
- 14. SY or sy square yard or square yards

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 42 00**

**SECTION 01 45 16.13**  
**CONTRACTOR QUALITY CONTROL**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This section describes the Contractor's general quality control requirements, duties, and responsibilities during execution of the Contract Work. Detailed quality control requirements are presented in individual specification sections.
- B. The Contractor shall establish, provide, and maintain an effective Quality Control Program that details the methods and procedures that will be taken to ensure that all materials and completed construction conforms to requirements of the Contract Documents and Manufacturer recommendations. Although the guidelines are established and certain minimum requirements are specified herein and elsewhere in the Contract Documents, the Contractor shall assume full responsibility for accomplishing the stated purpose.
- C. The Contractor shall be prepared to discuss and present, at the Preconstruction Meeting, its understanding of the quality control requirements. The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Construction Quality Control Plan has been reviewed and approved by Ecology or Ecology's Representative.
- A. Section 01 33 00 - Submittal Procedures

**1.02 CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturer's instructions, including each step in the sequence.
- C. Should manufacturer's instructions conflict with contract Documents, request clarification from Ecology or Ecology's Representative before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce required and specified quality.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 45 16.13 – CONTRACTOR QUALITY CONTROL**

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**1.03 REFERENCES**

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with the requirements of the standard, except where more rigid requirements are specified by applicable codes.
- B. Conform to reference standard by date of issue current on date of contract documents, except where a specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.

**1.04 TESTING SERVICES**

- A. Necessary materials testing shall be performed by an independent testing laboratory during the execution of the Work. Access to the area necessary to perform the testing and/or to secure the material for testing shall be provided by the Contractor.
- B. Testing does not relieve the Contractor from performing work to contract requirements.
- C. Retesting required because of non-performance to specified requirements shall be performed by the same independent firm. Payment for retesting will be charged to the Contractor by deducting testing charges from the contract sum.
- D. Subsequent sampling and testing, required as the work progresses to ensure continued control of materials and compliance with all requirements of Contract documents, shall be the responsibility of Ecology, except as required by other sections of these specifications.

**1.05 SUBMITTALS**

- A. The Contractor shall provide the Construction Quality Assurance Plan to Ecology or Ecology's Representative including items noted in this section and in accordance with **Section 01 33 00 - Submittal Procedures**.
- B. Quantity Sheets/Weight Tickets
  - 1. For bulk imported items, provide quantity sheets (load receipts) to account for each load delivered to the jobsite. Deliver quantity sheets to Ecology or Ecology's Representative at the job site at time of delivery. In the event Ecology's Representative is not on the project site, deliver quantity sheets on a weekly basis to place designated by Ecology.
  - 2. Provide disposal weight tickets from approved disposal site for each load of excavated contaminated soil leaving the site. Submit disposal weight tickets in batches on a weekly basis. Provide cumulative disposal ticket summary printouts from approved disposal site when requested by Ecology.



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 45 16.13 – CONTRACTOR QUALITY CONTROL**

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3. No payment shall be made for materials delivered for which quantity tickets or the disposal site load summary have not been provided to Ecology's Representative or delivered to designated place at end of working day. Backdated tickets are not acceptable as a basis of payment, except at Ecology's discretion.
  4. If bid item for material to be delivered to jobsite is stated in TONS, only weight slips from a certified scale are acceptable for payment purposes, unless approved in advance by Ecology.
  5. No payment for materials will be made until proper accounting has been made. Final quantity records are approved by Ecology, with payment at Ecology's discretion.
- C. Submit Contractor Daily Field Reports as noted in **Section 01 33 00 – Submittal Procedures, Article 1.04.B.2** and **Article 3.02** of this section.

**PART 2 – PRODUCTS**

**2.01 CONTRACTOR'S DAILY FIELD REPORT REQUIREMENTS**

- A. Date the report is issued.
- B. Project name and Ecology contract number.
- C. Work performed each day.
- D. Name of workers and subcontractors performing work each day including hours worked by each person.
- E. Type of equipment and hours used each day.
- F. Surveys completed.
- G. Submittals made.
- H. Samples collected
- I. Tests completed and results, or schedule for receiving results.
- J. Test results received.
- K. Weather conditions, summary of stormwater management, monitoring completed and results, BMPs modified, stormwater released, and contingencies implemented.
- L. Identification of bid item quantities used each day, or percent complete for lump sum items.
- M. Identification of potential items that may result in schedule overruns or added costs.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 45 16.13 – CONTRACTOR QUALITY CONTROL**

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**PART 3 - EXECUTION**

**3.01 CONTRACTOR QUALITY CONTROL**

- A. **Documentation:** The Contractor shall maintain current quality control records of all inspections and tests performed. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, proposed corrective action; and corrective actions taken.
- B. **Non-compliance:** Ecology or Ecology's Representative may notify the Contractor of any non-compliance with project quality control requirements. The Contractor shall, after receipt of such notice, immediately take corrective action.
1. In cases where quality control activities do not comply with either the Contractor's Quality Control Plan or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by Ecology or Ecology's Representative, Ecology or Ecology's Representative may:
    - a. Direct the Contractor to replace ineffective or unqualified quality control personnel or subcontractors.
  2. Carry out the functions and operations of the Contractor's Quality Control Plan. Costs incurred by Ecology to operate the Quality Control Program Plan or to otherwise remedy the Contractor's non-compliance with quality-related provisions of the Contract shall be deducted from the total amount due the Contractor.
  3. Order the Contractor to stop operations until appropriate corrective actions are taken.
  4. Withhold payment for the items not corrected based on the costs for the items as listed in the Schedule of Values.
  5. Any failure by Ecology to notify the Contractor of any non-compliance with any of the foregoing requirements shall not be deemed as a waiver of its enforcement rights hereunder and that the Contractor is still bound by the terms and conditions of said requirement.

**3.02 CONTRACTOR'S DAILY FIELD REPORTS**

- A. Contractor shall provide Ecology with a written daily field report at the end of each week, unless requested sooner by Ecology. The Contractors Daily Field Report shall describe the work accomplished that day and address each item listed in Article 2.01 of this section.

**END OF SECTION 01 45 16.13**

**SECTION 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This section describes Contractor requirements to provide the temporary facilities and controls until final completion of the Work. The Work includes compliance with all controls and ordinances with respect to safety, noise, security, access, facility protection, temporary utilities, site maintenance, and pollution control.
- B. Work includes, but is not limited to:
  - 1. Protection of property and facilities
  - 2. Temporary sanitary facilities
  - 3. Temporary Controls: Barriers and enclosures
  - 4. Security requirements
  - 5. Waste removal facilities and services

**1.02 RELATED SECTIONS**

- A. Section 01 14 13 - Access to Site
- B. Section 01 35 43.10 - Green Construction Practices
- C. Section 01 56 26 - Temporary Fencing
- D. Section 01 56 39 - Temporary Tree and Plant Protection
- E. Section 01 57 13 - Temporary Erosion and Sediment Control
- F. Section 01 74 19 - Construction Waste Management and Disposal
- G. Section 02 61 13 - Excavation and Handling of Contaminated Material
- H. Section 31 23 16 - Excavation
- I. Section 31 23 23 - Fill
- J. Section 32 92 23 - Sodding
- K. Section 32 93 33 - Shrubs
- L. Section 32 93 43 - Trees

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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**1.03 SUBMITTALS**

- A. Submit a Temporary Controls Work Plan five (5) working days before the preconstruction meeting. It must be approved by Ecology prior to beginning Work. This plan can be combined with the SPCC and other plans identified in **Section 01 33 00 – Submittal Procedures, Table 01 33 00-1**. The Temporary Controls Work Plan shall include at a minimum:
1. Describe in general the construction methods and equipment to complete the Work including the following:
    - a. Selective site demolition, excavation, filling, and restoration (**Sections 02 41 13, 31 23 16, 31 23 23, 32 92 23, 32 93 33, 32 93 43**).
    - b. Work stockpiling, managing, and disposing soil, sediment, construction waste, and suspect materials (**Sections 02 61 13 and 01 74 19**).
    - c. Site maintenance and security (**Section 01 35 29.13**).
    - d. Protection of surface water, groundwater, and other critical areas from turbid discharge and/or contamination (**Sections 01 57 13 and 02 61 13**).
    - e. Avoidance/protection of utilities, tree critical root zones, facilities, (**Articles 3.01, Sections 01 56 39 and 02 41 13**).
  2. Describe anticipated waste streams and procedures for site management, transportation, and off-site disposal/recycling, including reporting to Ecology.
  3. Describe air pollution control procedures.
  4. Describe methods for managing noise.
  5. Describe access and staging locations and routes, material loading and unloading locations and procedures, City street use and haul permits, signs, flagging, and related items. Include a diagram showing traffic control and signage (**Article 3.04 and Section 01 14 13**).
  6. Coordinate Work with Site Security Plan, Schedule, other work, and other submittals.
  7. Close the area within the work limits at each site to use by the public for the duration of the work. Discuss how the Contractor will restrict access to the project site by the public during the project. Account for required access by the Property Owner for maintenance, on-going access, or other Property Owner needs.
  8. Discuss restoration of damaged property resulting from construction activities.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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**3.01 PROTECTION OF PROPERTY AND EXISTING FACILITIES**

- A. Provide protections necessary to prevent damage to property and facilities. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in execution of Work, or in consequence of non-execution of Contractor, restore, or have restored at Contractor's expense, such property to a condition similar and equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or make good damage or injury in some other manner acceptable to Ecology.
- B. Rubber-tired or rubber-tracked equipment are permitted to operate on paved driveways, walkways and sidewalks with pavement protection measures in place (see **Article 3.04** in this section, below), and following proper equipment decontamination to minimize spread of contaminants off site (see **Section 02 61 13 - Excavation and Handling of Contaminated Material, Article 3.03**). If equipment must operate on paved driveways and sidewalks, appropriate protection methods should be used to prevent damage to the structures.
- C. Protect existing trees and other vegetation not designated for removal (to remain in place) against cutting, breaking or skinning of roots, skinning and bruising of bark, or smothering of trees by stockpiling materials within critical root radius. Provide necessary temporary guards to protect trees and vegetation to remain in place.
- D. Make every effort to minimize damage and cutting major tree roots during excavation operations. Provide protection for larger tree roots exposed or cut during excavation operations.
- E. Do not paint facilities to remain. Instruct Contractor staff, utility locate firms and surveyors that existing facilities to remain shall be protected and not defaced. Markings, as needed, shall be temporary and shall be removed at the completion of the project.
- F. Existing landscaping and vegetation to remain shall not be pruned or trimmed without approval from Ecology.
- G. No additional site work not indicated in the project manual shall be completed without approval from Ecology.

**3.02 DAMAGE TO FACILITIES, ROADS, VEGETATION OR PROPERTY**

- A. The Contractor shall complete photo-documentation of site conditions, including private and public property/rights-of-ways prior to the start of work by the Contractor.
- B. During the course of construction, the Contractor shall repair any damage to any part of the project property damaged by Contractor's actions, operations, or neglect. Contractor shall make repairs to the original condition, as acceptable to the Engineer, at no cost to Ecology.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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- C. Repair to “original condition” includes conforming to codes and regulatory requirements. Repairs shall conform to the most stringent of the following:
  - 1. Meet applicable codes, including obtaining appropriate permits and inspections.
  - 2. Meet relevant industry standards for the type of pipe, conduit, wire, etc., as published by a National Industry Association.
  - 3. Meet applicable and relevant American Society for Testing and Materials (ASTM) standards.
  - 4. Replace the damaged item with an equivalent item. For pipe, conduit, wire, or similar item, replace the damaged item with the same size item of the same material of the same specification (e.g., schedule 40) based on inspection of the damaged item and concurrence of the Engineer. Replace a standard length of pipe or conduit or other item, and use joints or connectors specifically manufactured for the repair the type of item/material damaged. Provide waterproof jacketing or other seals, coatings, or other ancillary items. Repair tracer wires and or conductive warning tapes.
  - 5. Complete all testing typically implemented for installation of the damaged item (e.g., pressure testing of water lines) and comply with regulatory procedures (e.g., disinfection of water lines).
  - 6. Pipe wraps, clamps, and similar patches shall not be used.
- D. Repair, restore, or replace any curbs, parking lot pavement, utilities, vegetation or property damaged by the Contractor to the original condition at the time construction began. Repair or replace trees and vegetation indicated to remain (or not indicated for removal) which has been damaged by construction operations, in a manner acceptable to the Engineer.
- E. All repairs made within rights-of-ways, including repair of sidewalks and curbs, shall meet City of Everett standards.

**3.03 ENVIRONMENTAL PROTECTIONS**

- A. General
  - 1. Scope: Provide labor, materials, equipment and perform Work required for protection of environment during and as a result of construction operations under contract.
  - 2. Applicable Regulations: Comply with applicable federal, state, and local laws and regulations concerning environmental pollution control and abatement, and specific requirements elsewhere in this project manual to prevent and provide for control of environmental pollution.
  - 3. Subcontractors: Contractor is responsible for compliance with provisions of this section by Subcontractors.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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- B. Protection of Land Resources: Give special attention to the effect of Contractor's operations upon surroundings. Take special care to maintain natural surroundings undamaged and conduct Work in compliance with following requirements.
1. When Work is completed, remove storage, and other Contractor buildings and facilities, and restore sites to a neat and presentable condition appropriate to surrounding landscape, unless otherwise specified. Remove debris resulting from Contractor's operation.
  2. Store petroleum products, industrial chemicals and similar toxic or volatile materials in durable containers located in areas where accidental spillage will not enter water. Store such materials in an area surrounded by containment dikes of sufficient capacity to contain an aggregate capacity of containers (110% secondary containment).
- C. Protection and Restoration of Property:
1. Preserve public and private property, structures, monuments, power and telephone lines, other utilities, and prevent damage to the natural environment.
  2. Provide steel plates, thick plastic ground protection mats, or 3/4-inch-thick plywood (OSB or wafer board not allowed) as necessary to cover facilities and pavements and lawn areas that must be crossed with tracked equipment. Secure plates or plywood sections together with lumber and fasteners as necessary to prevent turning or dislodging due to travel and/or turning of equipment. Replace plywood as it becomes waterlogged or loses rigidity and its protective properties degrades beyond its intended purpose.
  3. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in execution of Work, or in consequence of non-execution of Contractor, restore, or have restored at Contractor's expense, such property to a condition similar and equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring same, or make good damage or injury in some other manner acceptable to Ecology.
- D. Protection of Water Resources:
1. Perform Work not to create conditions injurious to fish or to their habitat, or which would make water unsuitable for private, municipal, or industrial use.
  2. Take special measures to prevent chemicals, fuels, oils, grease, bituminous materials, waste washings, herbicides, insecticides, lime, wet concrete, cement, silt or organic or other deleterious material from entering waterways.
  3. Dispose of off-site, in a lawful manner conforming to applicable local, state, and federal laws wastes effluents, trash, garbage, oil, grease, chemicals, cement, bitumen, petroleum, and chemical products or wastes containing such products. Furnish Ecology with documentation showing compliance with this requirement.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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4. Conform to applicable local, state, and federal laws for disposal of effluents. Dispose of waters used to wash down equipment in a manner to prevent their entry into a waterway and comply with project-specific requirements for water management. If waste material is dumped in unauthorized areas, remove material and restore area to condition of adjacent, undisturbed area. If necessary, excavate contaminated ground and dispose of as directed by Ecology and replace with suitable compacted fill material with surface restored to original condition.

**3.04 PROPERTY TRAFFIC/PEDESTRIAN CONTROLS**

- A. Implement the Access and Staging plan. Comply with the plan. Revise the plan as required and submit promptly for Ecology's review and approval prior to implementing changes.
- B. Properly warn the public of construction equipment and activities, open trenches, and/or other unsafe conditions by providing all necessary warning equipment. Equipment includes warning signs, barricades, fencing, flashing lights, and traffic control personnel (flaggers).
  1. Flaggers to have current Washington State Traffic Control (Flagging) Certification.
  2. Conduct operations with the least possible obstruction and inconvenience to the property owners and the public.
  3. Do not obstruct property owner access to their garages, homes, or pets. Provide temporary access ways, gates, and plywood coverings as needed. On a reasonably frequent basis, escort property owners to access areas of their property that are outside the cleanup area but that are not accessible due to cleanup.

**3.05 PROTECTION OF WORK**

- A. Protect Work, materials, and equipment against damage, weather conditions, or other hazards. Equipment, Work, or materials found damaged or in other than new condition will be rejected by Engineer.

**3.06 USE OF PROJECT SITE SPACE**

- A. Comply with access agreements and any special access requirements in the Contract Documents as directed by Ecology.
- B. Contractor vehicle and equipment parking only as designated by Engineer.



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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**3.07 SANITARY FACILITIES**

- A. Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

**3.08 WATER**

- A. Provide all water for all uses, including but not limited to irrigation, dust control, drinking, decontamination, and other needs.
  - 1. Obtain approval from appropriate water district prior to using water from fire hydrants.
  - 2. Provide water from off-site potable sources as required. Non-potable water shall not be used.
  - 3. Provide backflow prevention as required.
- B. Provide all hoses and other equipment needed to convey water.
- C. The Contractor shall not obtain water from private residential property owners.

**3.09 ELECTRICAL POWER**

- A. Provide temporary power as required from temporary independent power drop coordinated with utility, or by using generators.
- B. Do not use private power outlets at work sites.

**3.10 BARRIERS AND FENCING**

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide a temporary fence around construction site; equip with vehicular and pedestrian gates with locks as noted in **Section 01 56 26 - Temporary Fencing**.

**3.11 WASTE REMOVAL**

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS**

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- D. See **Section 01 74 19 - Construction Waste Management and Disposal** for waste removal.

**3.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS**

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.

**END OF SECTION 01 50 00**

**SECTION 01 56 26  
TEMPORARY FENCING**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary fencing is to be provided to separate the construction activities from existing Property Owners and/or Tenants, children, pets, adjacent property owners and/or tenants and their families and pets, the public, and public amenities.
- B. Temporary construction fencing required for the Work includes, but are not limited to, the following:
  - 1. Fencing of areas where Work is being performed.
  - 2. Fencing of laydown or other construction operational areas.
  - 3. Fencing for temporary dog runs on individual Parcels.
- C. Contractor shall comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
  - 1. Building Code requirements, including local requirements, standards, and regulations where more restrictive.
  - 2. Health and safety regulations.

**PART 2 - PRODUCTS**

**2.01 MATERIALS AND EQUIPMENT**

- A. Provide new materials to be used or, if acceptable to Ecology, undamaged, previously used materials in serviceable condition. Provide materials suitable for the use intended.
- B. For open-mesh construction fencing, the Contractor shall provide 11-gage, galvanized 2-inch, chain-link fabric fencing 6-feet high with galvanized steel pipe posts, 1-1/2-inch inner-diameter for line posts and 2-1/2-inch inner-diameter for corner posts.
- C. A sufficient number of clamps to secure all fence sections used by the Contractor at the Project Site.
- D. Provide a sufficient number of movable fence bases/weights to secure and continuously maintain all fence sections in a vertical position at the Project Site.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 56 26 – TEMPORARY FENCING**

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- E. Contractor shall only be permitted to use orange rubberized fencing during the last ten (10) working days of the maintenance and finishing period of a Parcel and to fence small areas of corrective work.
  - 1. When used, Contractor shall provide sufficient upright stakes and ties to securely hold orange fencing vertical at its full height.
  - 2. Contractor shall not attach orange fencing to any existing structure (e.g., gates, downspouts, columns, etc.)

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Contractor shall use qualified personnel for installation of temporary fencing, and shall relocate and modify facilities during the course of construction, as required.
- B. Contractor shall provide temporary fencing ready for use when needed to avoid delay to the Work, and shall maintain and modify fencing, as required.
  - 1. Do not remove until fencing is no longer needed.
- C. Around each area where construction activity for the Work is being performed, the Contractor shall install open-mesh, chain-link enclosure fences with posts properly secured and a lockable entrance gate or similar means of entry. The fence shall be of sufficient length to accommodate construction operations, and as required for work/staging area safety and security.
  - 1. Install in a manner that will prevent people, dogs, and other animals from easily entering, except by the entrance gate when open.
  - 2. Where materials and equipment must be stored, and are of value or attractive for theft (including personal possessions of Property Owners and/or Tenants), the Contractor shall provide a secure lockup of the Work areas.
  - 3. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
  - 4. Contractor shall verify at the end of each day that all fence sections are secured and clamped to prevent collapse or unauthorized entry into Work areas.
  - 5. Contractor shall make effort to maintain the integrity of the fences when high winds are forecasted. Damage resulting from falling fences is the responsibility of the Contractor.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 56 26 – TEMPORARY FENCING**

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- D. Where Work is being performed on a property whose Property Owner and/or Tenant(s) own one or more dogs, the Contractor shall provide an enclosure using open-mesh, chain-link fence properly posted and accessible from the property residence without entering the areas of Work.
1. Dog run enclosures shall only be provided in areas where the removal of existing sod has not taken place or new sod has already been installed and such use will not damage the new sod.
  2. The area encompassed for the purposes of a dog run shall be determined based on the existing Site conditions for each Parcel and the size of the dog to be enclosed.
  3. The location of this enclosure shall be adjusted as necessary to permit Work to be performed on each property without delay.
  4. The Property Owner and/or Tenant(s) may voluntarily waive the creation of dog runs by Contractor.
  5. Ecology's field representative will contact Property Owner(s) and/or Tenant(s), and communicate requests to Contractor.
  6. If Contractor cannot implement a dog enclosure without imposing delay or restriction of the Work, Ecology shall be contacted promptly and so advised. Ecology will coordinate that finding with Property Owner(s) and/or Tenant(s).

**END OF SECTION 01 56 26**

**SECTION 01 56 39**  
**TEMPORARY TREE AND PLANT PROTECTION**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Contractor shall bear the responsibility for preserving and protecting trees and plants identified by Ecology as needing to be preserved during Work.
  - 1. This shall include all trees and plants specified as “Remain” for each Parcel.
    - a. Protect trees and plants including the surrounding surface material designated to Remain in accordance with **Section 31 23 16 - Excavation**.
  - 2. This responsibility shall also include all replacement plants the Contractor plants in areas where other Work is still being performed.
- B. Contractor shall provide protective covers, barriers, fences, or equal means to protect trees and plants identified by Ecology as needing to be preserved during Work.
- C. Plants or trees identified by Ecology as needing to be protected and preserved during Work that are damaged or destroyed by the Work shall be replaced by the Contractor at no additional cost to Ecology.

**1.02 RELATED SECTIONS**

- A. Section 01 50 00 - Temporary Facilities and Controls
- B. Section 31 23 16 - Excavation
- C. Section 32 93 33 - Shrubs
- D. Section 32 93 43 - Trees

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 PROCEDURES**

- A. Delineate the Critical Root Zone (CRZ), as defined on **Detail 3 of Sheet C100.0** of the **Appendix A01 - Contract Drawings**, using plainly visible markings (e.g., paint or flagging) of individual trees or around perimeter CRZ of groups of trees to remain.
- B. Protect the CRZ of trees and shrubs as defined on the **Appendix A01 - Contract Drawings** and as specified. In areas where the access route to a property is necessary within the CRZ of a tree or shrub, apply a minimum 1-inch-thick steel plate

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 56 39 – TEMPORARY TREE AND PLANT PROTECTION**

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over 3 inches of mulch/wood chips or minimum ¾-inch-thick plywood over 8 inches of mulch, to protect surface or exposed roots from damage related to construction operations.

- C. Plants to remain shall be temporarily covered with clear plastic sheeting or equal during excavation activities in the plant's vicinity, to prevent contaminated soil accumulating on plants during the Work. Covers shall be removed promptly after Work in the vicinity of the plants is completed.
- D. Exposed root balls/masses of trees and plants and tree roots greater than two (2) inches in diameter shall be covered in burlap or equal, which shall be kept moist during the Work.
- E. Excavate soil near mature trees or plants to Remain In Place as indicated in **Article 3.05 of Section 31 23 16 - Excavation**.
- F. Hand tools shall be used to place import fill and topsoil in the vicinity of plants and trees to be preserved and protected. Import fill compacted in the vicinity of plants and trees shall involve the use of small plate compactors or equal equipment easily maneuvered and manipulated to protect and preserve the plant or tree.
- G. Prevent damage to sod areas by taking protective measures. Existing lawn areas damaged by Contractor's failure to take protective measures shall be excavated to a depth of at least 3 inches, replaced with imported topsoil and seeded/sodded similar to adjacent areas on the property. Excavated soil shall be managed as contaminated soil and disposed of accordingly. "Restoring" damaged lawn by spreading a thin layer of topsoil and hand seeding will not be accepted.

**END OF SECTION 01 56 39**

**SECTION 01 57 13**  
**TEMPORARY EROSION AND SEDIMENT CONTROL**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Section includes: Constructing and maintaining the drainage and temporary erosion and sediment control (TESC) measures to prevent the pollution of air, water, and land within the project limits and in areas outside the project limits where work is accomplished in conjunction with the project. The section also includes the prevention of erosion due to construction activities; prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities; and the restoration of areas eroded due to insufficient preventive measures.
- B. General: The work involves excavation of contaminated soil-containing metals. The Contractor shall diligently implement TESC procedures at all times during completion of the work to prevent cross-contamination between clean and contaminated areas, contaminated sediment tracking, dispersal of contaminated dust, and runoff of contaminated stormwater from excavation areas. The Contractor is cautioned that release of contamination to uncontaminated areas may cause Ecology and/or the Contractor to be liable for the spread of contamination, including associated future actions and costs for investigation and remediation of the released contamination.
- C. National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSWGP) coverage forms, activities, monitoring, reporting, and Notice of Termination.
  - 1. Coordinate with Ecology Water Quality per requirements of NPDES CSWGP. Copy Ecology and Ecology Representative on all correspondence and submittals.
  - 2. The project site is a contaminated site subject to project-specific requirements that are more stringent than are applicable for a typical clean development site. Contaminated site requirements listed below apply at all times from project inception to the time when all of the following are complete: 1) all backfill materials are placed to full depth including soil fill, and mulch, 2) all subgrades with cleanup areas are fully covered; 3) all excavated contaminated material has been hauled off-site and site cleaning and equipment decontamination is complete. Thereafter, project will revert to standard NPDES Construction Stormwater General Permit requirements.



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL**

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**1.02 RELATED SECTIONS**

- A. Section 01 41 00 - Regulatory Requirements
- B. Section 00 73 19 - Health and Safety Requirements
- C. Section 01 18 00 - Project Utility Sources
- D. Section 01 35 29.13 - Health, Safety, and Emergency Response Procedures for Contaminated Sites
- E. Section 01 35 43.10 - Green Construction Practices
- F. Section 01 50 00 - Temporary Facilities and Controls
- G. Section 02 61 13 - Excavation and Handling of Contaminated Material

**1.03 REFERENCES**

- A. Contractor shall comply with all applicable requirements of federal, state, and local agencies.
  - 1. Conform to the requirements of the "Drainage Manual", Snohomish County, Washington (July 2021).
  - 2. Implement best management practices (BMP) requirements and comply with the "Stormwater Management Manual for Western Washington (SWMMWW), Washington State Department of Ecology (2019)."
- B. NPDES CSWGP including, but not limited to, the following:
  - 1. Prepare and maintain the Stormwater Pollution Prevention Plan (SWPPP).
- C. ASTM D 4397 Standard Specification for Polyethylene.

**1.04 SUBMITTALS**

- A. Qualifications
  - 1. Certified Erosion Sediment and Control Lead (CESCL). The Contractor shall designate a TESC Supervisor to be responsible for inspecting the TESC measures and for ensuring that the Contractor's operations are preventing sediment runoff. The minimum qualifications for the TESC-Supervisor include a current certification as a CESCL by a course approved by Ecology. The Contractor shall provide Ecology with a method for contacting the TESC-Supervisor 24-hours per day, 7 days a week.
- B. Construction Sequence Schedule
  - 1. The Contractor shall prepare and maintain the SWPPP and TESC Plans. The TESC Plans and SWPPP shall be maintained to be at least as stringent as a requirement set forth in the Contract Drawings.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL**

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- a. The work schedule shall coordinate the time of land disturbing activities with the provision of erosion control measures to reduce on site erosion and off-site sedimentation. Installation of temporary erosion control features shall be coordinated with the construction of permanent erosion control features to ensure effective and continuous control of erosion and pollution.
- C. TESC Plan: The Contractor shall prepare a TESC Plan, SWPPP short form, and other documents that meet the requirements and intent of the project SWPPP, and modify, adapt, and maintain these plans and documents as required based on site conditions. The project-specific documents shall include a site-specific TESC Plan that describes the proposed layout of TESC and BMPs to be used. The Plan shall include the manufacturer's catalog cut sheets or a sample of materials to be used. The Plan should identify the types of work and BMPs for each phase of the project.
- D. NPDES Construction Stormwater General Permit (CSWGP): The CSWGP (**Appendix B01 – NPDES Permit Information**) will be obtained by Ecology. Ecology will issue a Transfer of Coverage to the Contractor prior to mobilization or the start of the work.
  - 1. The Contractor shall prepare and maintain the site specific SWPPP that includes at least the following elements: identified all potential sources of stormwater pollution at the construction site; describes practices to reduce pollutants in stormwater discharges from the construction site; and identifies procedures the operator shall implement to comply with the terms of NPDES Construction Stormwater General Permit, including reporting and project specific requirements.
  - 2. The Contractor shall submit to Ecology revisions to the SWPPP on a weekly basis.
- E. Product samples, data sheets, and complete description meeting or exceeding the specifications in this section for materials supplied by the Contractor.
- F. Submit a Dust Control Plan describing activities, sources to control, control methods and procedures, source of water and method for hauling and applying, monitoring, corrective measures if dust control actions are insufficient, monitoring, and documentation. See **Section 01 35 29.13 - Health, Safety, and Emergency Response Procedures for Contaminated Sites, 1.04B and 3.05B** for dust exposure protection.

**PART 2 - PRODUCTS**

**2.01 MATERIALS**

- A. General: Meet specifications for BMPs and TESC materials as outlined in Ecology's SWMMWW and Snohomish County's Drainage Manuals, including but not limited to the following TESC measures:
  - 1. Geotextile for inlet protection shall conform to the following.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL**

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<b>Geotextile Property</b>	<b>Test Method</b>	<b>Class A</b>	<b>Class B</b>	<b>Class C</b>
AOS	ASTM D 4751	No. 40 max	No. 60 max	No. 80 max
Water Permittivity	ASTM D 4491	0.5 sec <sup>-1</sup> min.	0.4 sec <sup>-1</sup> min.	0.3 sec <sup>-1</sup> min.

- a. Generally follow SWMMWW BMP C220.
2. Sandbags for anchoring Plastic Sheeting:
  - a. Sandbags filled to 30 pounds minimum.
  - b. Secure with 1/4-inch polypropylene rope at 10 feet on center maximum each way.
  - c. Anchor rope with 2-inch x 2-inch fir, standard or better.
3. Plastic Sheeting:
  - a. Clear plastic covering for protection of slopes and cuts shall meet the requirements of ASTM D 4397 for polyethylene sheeting having a minimum thickness of 6 mils.
  - b. Generally, follow SWMMWW BMP C123.
4. Straw bales:
  - a. Tied with twine, with no excessive quantities of mature seed of noxious weeds or other plant species.
5. Wattles
  - a. Wattles shall consist of cylinders of plant material such as weed-free straw, coir, wood chips, excelsior, or wood fiber or shavings encased within netting made of natural plant fibers unaltered by synthetic materials. Wattles shall be a minimum of 8 inches in diameter. Netting material shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials such as preservatives.
  - b. Generally, follow SWMMWW BMP C235.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL**

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- 6. Silt Fence
  - a. Use geotextile as noted in the table below.

<b>Geotextile Property</b>	<b>Minimum Average Roll Value</b>
Polymeric Mesh AOS (ASTM D4751)	0.60 mm max. for slit film woven (#30 sieve) 0.30 mm max. for all other geotextile types (#50 sieve) 0.15 mm min. for all fabric types (#100 sieve).
Water Permittivity (ASTM D4491)	0.02 sec-1 minimum
Grab Tensile Strength (ASTM D4632)	180 lbs. minimum for extra strength fabric. 100 lbs. minimum for standard strength fabric
Grab Tensile Strength (ASTM D4632)	30% max.
Ultraviolet Resistance (ASTM D4355)	70% min.

- b. Generally, follow SWMMWW BMP C233.

**PART 3 - EXECUTION**

**3.01 NPDES CONSTRUCTION STORMWATER GENERAL PERMIT**

- A. Transfer of Coverage: Prior to the start of the work, Ecology will prepare a Transfer of Coverage for permit transfer to the Contractor. The Contractor shall sign the Transfer of Coverage form and submit it to Ecology Water Quality (with copy to Ecology Project Manager) in the timeframe specified in **Table 01 33 00-1**.
- B. Permit Requirements: The Contractor shall meet all the permit requirements including providing a currently certified CESCL, completing site inspections and filling out Site Inspection Checklists, preparing and submitting monthly Discharge Monitoring Reports (DMRs) (using Ecology’s electronic reporting process), and preparing and maintaining SWPPP as necessary throughout the life of the site work requiring this permit coverage.
- C. Notification to Ecology for Inspection: The Contractor shall notify the Ecology Water Quality Program by phone and email a minimum of 72-hours prior to first excavation and after installing TESC measures. Provide schedule and continue to update schedule as it changes. This notification informs Ecology that TESC measures are installed correctly and that they can be inspected by Ecology’s Water Quality personnel.
- D. When each property is stabilized, remove TESC measures and complete final restoration of impacts from removal of TESC measures. When all properties have been stabilized, the Contractor shall prepare Notice of Termination form and submit to Ecology Water Quality in accordance with NPDES Construction Stormwater

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General Permit procedures. Submit copy of form to Ecology Project Manager or Ecology's Representative.

**3.02 PREPARATION**

- A. The Contractor shall be responsible for implementing, maintaining, monitoring and supplementing silt control measures, storm water runoff control measures and additional Best Management Practices (BMPs) for the implementation and maintenance of a comprehensive erosion control plan in accordance with City of Everett requirements, the requirements of the NPDES CSWGP for the Project, the SWPPP, the requirements of a NPDES, and State Waste Discharge General Permit for Storm Water Discharges Associated With Construction Activity for the Project.
- B. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
- C. TESC measures shall be installed as stringent as or more stringent than indicated in the Contractor's TESC Plan and SWPPP, and shall be substantially upgraded by the Contractor following any observed deficiencies. Downgrading installed TESC measures shall only occur without concurrence of Ecology.

**3.03 INSTALLATION**

- A. Install BMPs per Contractor prepared and Ecology approved TESC Plans and BMP specifications.

**3.04 TESC IMPLEMENTATION AND MAINTENANCE**

- A. Implement stormwater TESC measures and BMPs per the site SWPPP.
  - 1. Prior to start of construction at each property, implement TESC Plan, examine the site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.
  - 2. Schedule work so that soil surfaces are left exposed for the minimum amount of time.
  - 3. Maintain installed TESC measures in place throughout the duration of construction and site stabilization. For a sod site, TESC measures may be removed after all materials are incorporated into the work, and all sod is placed, provided the site is otherwise fully stabilized. Remove TESC measures, provided the site is otherwise fully stabilized.
- B. Run-on/Run-off Control: The Contractor shall prevent stormwater from higher elevation areas from running into excavations. Provide and maintain water diversion structures. Prevent water from flowing into excavation areas. Collect and manage

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water from downspouts and roof drainage and divert this clean stormwater to drainages outside excavation areas.

- C. Prevent stormwater contact with contaminated subgrade, and Access and Staging Areas.
  - 1. The Contractor shall cover excavated areas with plastic sheeting to prevent contact of stormwater with potentially contaminated soils. Sheeting shall be secured in place daily as the work progresses. Secure sheeting in place with sandbags and anchor trenches (filled with clean soil). Overlap sheeting from higher elevation areas over lower elevation areas.
  - 2. Sheeting shall be arranged such that runoff is contained within excavations.
  - 3. Store any water that does not meet requirements in portable tanks. Dispose of stored water off-site at a permitted facility.
  - 4. Discharged water shall meet project specific discharge limits.
- D. CSWGP Benchmarks:
  - 1. Contractor shall meet all requirements of the CSWGP, including benchmarks/limits.
  - 2. After backfilling excavations with clean backfill materials, cleaning all track out, removing all contaminated soil stockpiles, and decontaminating equipment: per NPDES Construction Stormwater General Permit.
  - 3. Water that contacted potentially contaminated soils, such as due to incomplete, damaged, or misplaced sheeting, shall not be discharged without treatment to meet the project specific discharge limits.
- E. All water shall be managed on site to the maximum extent practicable.
- F. Store water that cannot be maintained on site in portable tanks.
- G. Prevent water from running into or ponding near basements and foundations. Manage run-on areas as well as excavation areas. Use plastic sheeting and sandbag berms and other measures as needed to prevent damage to structures by water.
- H. Inspection: TESC Supervisor shall inspect erosion and sediment control daily and immediately before, during, and after each rain event.
- I. Logs: TESC Supervisor shall maintain a log of all inspections.
- J. Sediment Control: The Contractor shall implement the following measures to eliminate sediment from leaving the Site.
  - 1. Haul trucks shall not drive on exposed contaminated soils, in remediation areas, in topsoiled areas, and within critical root zones of trees.
  - 2. No track out or dispersal of sediment to areas outside cleanup limits is allowed. Protect all access and staging areas, and loading areas, with plastic sheeting. Clean plastic sheeting after loading each truck. Replace plastic sheeting daily or

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more frequently if damaged; holes are not allowed. Roll up plastic sheeting when not in use. Do not load contaminated soils when raining; alternatively, prevent runoff of water from plastic sheeting into rights of way or adjacent areas. Fully contain and manage water on plastic sheeting.

3. Complete the work so as to limit placement of plastic sheeting over existing lawn in access and staging and loading areas to five (5) working days maximum. Restore any areas and lawn damaged by plastic sheeting or other protective measures.
  4. Clean equipment that contacted soils prior to leaving the Site. Equipment that contacts contaminated soils shall be thoroughly cleaned and decontaminated, first by dry brushing and vacuuming, or, as a contingency, by pressure washing (if approved by Ecology). Contain and dispose of wash water off site or, if it can be accomplished, infiltrate wash water into excavation area soils. Do not discharge sediment or wash water to areas adjacent to the remediation areas, or to restored areas, or to storm drains.
  5. Sweep all sediment tracked or deposited on public roadways within 30 minutes of occurrence. Cleaning is not a substitute for prevention of track out.
  6. Sweep using high-efficiency vacuum sweeper. Visible dust from sweeper exhaust is not allowed. Washing down pavements and streets is prohibited unless all wash water is fully contained and treated to meet project-specific discharge limit.
- K. Stockpiles: Stockpiles shall be underlain and covered with plastic sheeting of a size substantially larger than the pile, secured as required prior to leaving job site on a daily basis. Secure covers against movement by wind.

**3.05 STORMWATER STORAGE, TREATMENT, AND DISCHARGE**

A. Storage:

1. Manage water on site to the maximum degree possible. Infiltrate stormwater into existing excavations. Do not infiltrate water into areas beyond excavation limits or into areas of clean backfill.
2. Runoff that cannot be managed within existing excavations due to volume, topography or other cause shall be contained and pumped to a storage tank. Dispose of stored water at an off-site permitted facility.

**3.06 MONITORING**

A. Turbidity:

1. NPDES Permit Sites: Complete monitoring of runoff that leaves any excavation area as required by the NPDES Construction General Stormwater Permit. Report all test results as required by permit. Promptly provide copy of test results and reporting forms to Ecology.

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2. For each property, from start of any soil disturbance to the time when the work is complete, as defined in **Article 1.01C** of this section, monitor discharge for turbidity for each storm event, or twice daily, or per NPDES Construction Stormwater General Permit requirements, whichever is more stringent.

**B. Dust Control:**

1. In the Contractor's TESC Plan, provide a dust control plan prior to the start of the work that addresses the below items. This includes the Contractors' means and methods for obtaining, hauling, and applying water.
2. Dusts are likely to contain arsenic and lead due to the nature of the site contamination.
3. Control dust on-site and prevent off-site dust that would cause a hazard or nuisance to workers and/or others.
4. Implement dust monitoring and control measures continuously during construction. During remediation excavation, dusts could contain arsenic and lead, and dust control measures shall be diligently implemented to prevent dust generation and prevent any dust from escaping the limits of excavation. Dust generation during soil handling and truck loading shall be prevented. Potentially contaminated dust shall not be allowed to blow or disperse into areas not designated for remediation.
5. Stop Work: The Engineer shall be the final judge of whether the Contractor is providing adequate dust control. If dust leaves the construction site or excavation area, the Contractor shall cease work immediately, with no compensation to the Contractor for cost or delay. Work shall not be resumed until the Contractor provides additional oversight, labor, equipment, and dust-control measures such that the work can be completed with adequate dust control. During windy conditions, the Contractor shall stop work to avoid the potential for dust generation.
6. The Contractor shall thoroughly clean all areas and surfaces contaminated by blown dust and fall-out, including sidewalks, siding, window ledges, decks/patios (and items therein), playground equipment and surfaces, buildings, and other items. Cleaning shall consist of vacuuming and brushing, followed by pressure washing.

**3.07 COORDINATING RESTORATION WORK WITH TESC BMPS**

**A. Sod:**

1. Identify BMPs not necessary to remain in place after installing sod and that will impact the installation of sod.
2. Remove unnecessary BMPs (not construction fencing) prior to installing sod.



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**3.08 TERMINATION, RESTORATION AND CLEAN UP**

- A. After all sites are fully stabilized, and prior to submitting Notice of Termination to Ecology Water Quality and before Final Completion, remove and dispose all temporary erosion and sediment control materials and fully restore and stabilize the site.
- B. Prepare Notice of Termination form and submit to Ecology Water Quality in accordance with NPDES Construction Stormwater General Permit procedures. Submit copy of form to Ecology Project Manager or Ecology's Representative.

**END OF SECTION 01 57 13**

**SECTION 01 58 13  
TEMPORARY PROJECT SIGNAGE**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This section identifies the temporary project signs for this project.

**1.02 SCHEDULING**

- A. Installation: The Contractor shall install the project sign at a location selected by Ecology before beginning any work at the project site.
- B. Removal: Upon Project Final Completion, remove the sign and restore area to original condition. The sign will become the property of the contractor upon project completion.

**PART 2 - PRODUCTS**

**2.01 TEMPORARY PROJECT SIGN MATERIALS**

- A. Vertical Posts:
  - 1. Construction grade Douglas Fir
  - 2. Size: 4-inch x 4-inch x 10-foot with surface on four sides (S4S) finish
- B. Horizontal Frame Members and Trim:
  - 1. Construction grade Douglas Fir
  - 2. Size: 2-inch x 4-inch with S4S finish
  - 3. Trim: ¾-inch quarter round
- C. Sign Board:
  - 1. DFPA A-C exterior grade plywood
  - 2. Thickness: ¾ inch
  - 3. Size: 4 feet high by 6 feet wide
- D. Paint:
  - 1. Entire Sign (posts, frame trim, sign board): White, exterior grade.
  - 2. Letters: Dark Green.
- E. Project Sign Lettering:

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 58 13 – TEMPORARY PROJECT SIGNAGE**

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- F. “EVERETT SMELTER UPLANDS RESIDENTIAL 2019 CLEANUP GROUP”, at least 3 inches high
- G. “EVERETT SMELTER PLUME CLEANUP” and “WA. DEPARTMENT OF ECOLOGY”, at least 2 inches high
- H. Other Letters as shown in Detail 1, at least 1½ inches high
- I. Space Evenly

**PART 3 - EXECUTION**

**3.01 CONSTRUCTION**

- A. Carpentry: All cuts and fabrication will be performed by a carpenter and be clean, level, even and neat in appearance.
- B. Paint:
  - 1. Letters: Well formed, evenly spaced, neat in appearance, and aligned per Detail 1.
  - 2. Number of coats: Minimum of two
  - 3. Number of coats sign board (performance): Surface shall be smooth and nonabsorbent. Add additional coats as necessary to achieve.
- C. Construct of a quality to maintain good condition for the duration of construction. Attach sign parts together with exterior grade screws. Construct sign as shown in Detail 2.

**3.02 INSTALLATION LOCATION**

- A. Two signs are to be located at the general north and south common entrances to the work locations as determined at the preconstruction meeting by the Contractor with Ecology approval.

PROJECT SIGN DETAIL 1

**EVERETT SMELTER UPLANDS  
RESIDENTIAL 2020 CLEANUP GROUP**

**EVERETT SMELTER PLUME CLEANUP  
WA. DEPARTMENT OF ECOLOGY**

Project removes arsenic contamination from soil resulting from  
the Everett Asarco Smelter operations

This project is funded by the Model Toxics Control Act,  
Hazardous Substance funding.

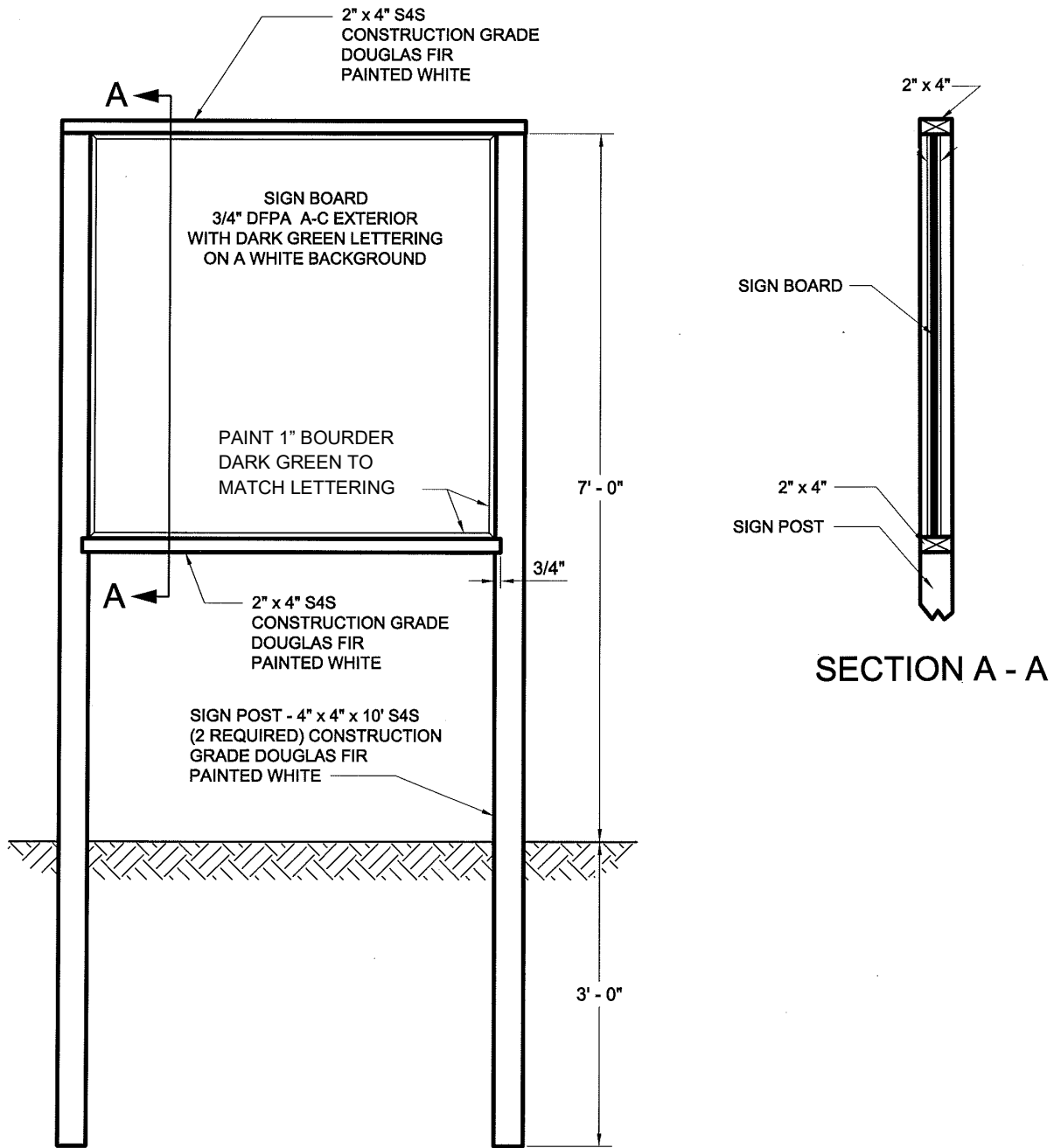
Contractor: (contractor's name and address)

Project info: (<https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites/Toxic-cleanup-sites/Everett-Smelter>)



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**PROJECT SIGN DETAIL 2**



**END OF SECTION 01 58 13**

**SECTION 01 60 00**  
**PRODUCT REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 ECOLOGY FURNISHED ITEMS**

- A. Ecology furnishes no items.

**1.02 RELATED SECTIONS**

- A. Section 01 25 00 – Substitution Procedures
- B. Section 01 35 43.10 - Green Construction Practices
- C. Section 01 57-13 - Temporary Erosion and Sediment Control
- D. Section 03-30-00 - Cast-in-Place Concrete
- E. Section 31-23-23 - Fill
- F. Section 32-14-00 - Unit Paving
- G. Section 32-15-00 - Aggregate Surfacing
- H. Section 32-16-00 - Curbs, Gutters, Sidewalks, and Driveways
- I. Section 32-31-00 - Fences and Gates
- J. Section 32-32-00 - Retaining Walls
- K. Section 32-92-23 - Sodding
- L. Section 32-93-33 - Shrubs
- M. Section 32-93-43 - Trees

**1.03 SUBMITTALS**

- A. Contractor shall prepare and submit a tabular list showing Products for the Work specified in form acceptable to Ecology. Include generic names of products required, the manufacturer's name, and proprietary product names for each item listed.
- B. Coordinate product list submittal with the Contractor's Preliminary Project Schedule (**Section 01 31 00**), Contractor proposed Substitutions(**Section 01 25 00**) and Contractor's Existing Conditions Assessments for each Parcel (**Section 02 22 00**).
  - 1. Submit an Initial List of Products with the Preliminary Project Schedule.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 60 00 - PRODUCT REQUIREMENTS**

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- a. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
  2. Contractor shall submit a Final List of Products within ten (10) working days after receiving Ecology's response to the submittal of Initial List of Products.
    - a. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
  3. Ecology will respond in writing to the Contractor within ten (10) working days of receipt of the Initial List and Final Lists of Products. No response within this time period constitutes no objection to listed manufacturers or products, but does not constitute a waiver of the requirement that products comply with Contract Documents. Ecology's response will include the following:
    - a. A list of unacceptable Product selections, containing a brief explanation of reasons for this action.
  4. Contractor shall supplement the Final List of Products (in tabular format) as necessary based on the findings of Contractor's existing conditions assessments of the Parcels in the Project area and conditions encountered during Work.
- C. Submit supplemental test data where specified herein.

**1.04 IMPLIED/INCIDENTAL MATERIALS**

- A. Minor materials required for proper Project completion although not specifically mentioned or shown in Contract document, are part of materials to be provided by Contractor as part of Contract and are considered incidental to the total cost of the Project. No additional compensation is due to the Contractor for providing such items.

**1.05 QUALITY OF MATERIALS**

- A. Materials are to be new, free from defects, and of quality specified in the Contract documents.
- B. Select and provide materials to ensure satisfactory operation and rated life in prevailing environmental conditions wherever installed.
- C. Same make and quality throughout the entire job, for each type. Furnish materials of lasted standard design products of manufacturers regularly engaged in their production.

**1.06 SPECIFIED MATERIAL**

- A. Contract documents generally reference only one make and model for each item of material or equipment required. This is not intended to be restrictive but indicates the standard of quality, design, and features required.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 60 00 - PRODUCT REQUIREMENTS**

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- B. Specified product is the basis of design regarding physical size, strength, and performance. Products named indicate minimum acceptable product and may be substituted for an equivalent product, “or equal”, as approved by Ecology, unless noted otherwise.

**1.07 SUBSTITUTIONS**

- A. Substitutions shall be in accordance with **Section 01 25 00 – Substitution Procedures**.

**1.08 TECHNICAL DATA**

- A. Technical data and information contained herein relies entirely on tests and ratings provided by manufacturers who are solely responsible for their accuracy. Use of this information in no way implies Ecology has tested or otherwise verified the results of published manufacturer’s literature.

**1.09 DELIVERY, STORAGE, AND HANDLING**

- A. Transport products by methods to avoid product damage. Only deliver products to the site that are undamaged and free from defects.
- B. Provide proper equipment and personnel to handle and transport materials/products to the Project sites safely and undamaged.
- C. Promptly inspect material to ensure that products comply with Contract requirements, quantities are correct, and products are undamaged.
- D. Store and/or stockpile materials and products only in areas designated and approved by Ecology prior to delivery.
- E. Arrange storage to provide easy access for inspections. Original product labels, certifications, tags, stamps, to be intact and readily visible for inspection purposes.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 01 60 00**



**SECTION 01 71 23  
FIELD ENGINEERING**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Prior to commencing excavation for the Work, the Contractor shall perform all surveying necessary and specified herein for the restoration of the topography for each Property in the Project Site. This section provides the minimum requirements for each Property.
  - 1. The Site survey shall be sufficient in detail to document Site features and drainage.
  - 2. Survey shall be performed with adequate precision and data density to meet the requirements of this section and the tolerances indicated in other sections.
  - 3. Surveying references and benchmarks shall be established by the Contractor in fashions that shall not be disturbed by the Work. The Contractor shall be responsible for maintaining and, if necessary, repairing all references and benchmarks established for the Work.
- B. The Contractor shall provide additional surveying as necessary and relevant for the restoration of pre-construction topography for each Property.
- C. Where significant or complicated topography is present, and if necessary, the Contractor shall retain the services of a professional land surveyor (PLS) licensed in the State of Washington to survey surface elevations.
  - 1. If requested by Ecology, Contractor shall provide services of a licensed PLS through a Work Change Directive.

**1.02 RELATED SECTIONS**

- A. Coordinate related requirements in other sections of the Specifications, including but not limited to the following:
  - 1. Section 01 33 00 - Submittal Procedures
  - 2. Section 01 77 00 - Closeout Procedures
  - 3. Section 02 22 00 - Existing Conditions Assessments
  - 4. Section 31 23 16 - Excavation
  - 5. Section 31 23 23 - Fill

**DIVISION 01 – GENERAL REQUIREMENTS**  
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**1.03 REFERENCES**

- A. Horizontal datum: Washington State Plane Coordinate system. North zone, NAD 83/11.
- B. Elevation datum: NAVD 88.

**1.04 QUALITY ASSURANCE**

- A. It is the responsibility of the Contractor to schedule the survey and to verify that it has met the Contract requirements prior to proceeding to the next sequence of Work. Ecology or Ecology's Representative will review and approve each survey or survey increment prior to the Contractor proceeding to the next phase of work in that specific area. Surveys of the Project shall be surveyed using the same vertical datum and horizontal coordinate system as the Contract Drawings noted above.
- B. Surveys for Final Acceptance and As-Built Drawings shall be performed and stamped by a PLS licensed in the State of Washington, independent of the Contractor, and acceptable to Ecology. The surveyor shall have actively engaged in survey operations for the past five (5) years.
- C. The surveyor shall have insurance that has limits that meet or exceed the requirements of the General and Supplemental Conditions.
- D. Ecology reserves the right to retain an independent surveyor to periodically check the Contractor's survey. Surveying performed by Ecology will be at no cost to the Contractor.

**1.05 SUBMITTALS**

- A. General submittals required in accordance with this Section include the following (as detailed in **Article 3.06** of this Section) to be submitted in accordance with **Section 01 33 00 - Submittal Procedures**:
- B. Surveying Schedule.
  - 1. Submit a surveying schedule with the Preliminary Project Schedule submittal in order to complete the surveying requirements at each Property before commencing clearing, grubbing, and/or earthwork.
  - 2. Contractor surveying schedule shall provide Ecology a minimum of five (5) working days' notice in advance of Contractor activities for each Property to permit notification of Property Owners and Tenants.
- C. Pre-construction surveys.
  - 1. All surveys of pre-construction conditions for all Properties shall be completed and submitted by Contractor at least two (2) working days prior to the commencement of clearing, grubbing, and earthwork at the Project Site, unless

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 71 23 – FIELD ENGINEERING**

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otherwise permitted by Ecology in writing. Submittal documentation shall conform to requirements in this section 3.06A.

2. Contractor shall coordinate Work so surveying and existing condition assessments specified in **Section 02 22 00 - Existing Conditions Assessments** can be performed concurrently.
- D. Post-excavation surveys.
1. Submit post-excavation survey data upon completion of excavation and with sufficient time for Ecology's review prior to beginning backfill activities. Submittal documentation shall conform to requirements in this section 3.06A.
- E. Post-restoration Surveys.
1. Submit post-restoration survey data within 1 calendar week upon completion of sodding work for each property. Submittal documentation shall conform to requirements in this section 3.06A.
- F. As-Built Surveys.
1. Submit survey data obtained during Work for each Property, as requested by Ecology, and with the Project Record for Substantial Completion.
  2. Upon completion of all activities, the Contractor shall prepare As-Built drawings of the completed work. The As-Built drawing shall locate all features as constructed including, but not limited to, finished excavation extents, as-built elevations/grades (pre-excavation, post-remediation, and post-restoration), and property boundaries on the Drawings. The As-Built drawings shall be produced full size (ANSI D, 22x34 inch) as a pdf signed by the Contractor and signed and stamped by the PLS. A PDF and CAD file of As-Built, and raw CAD electronic data files shall also be provided by the Contractor and submitted to Ecology.

**1.06 DIMENSIONS AND LAYOUTS**

- A. The Contractor shall be responsible for furnishing, setting, and marking all line and location stakes, including offsets and general construction staking. When Work requiring control is being performed, all necessary related equipment, supplies, and instruments shall be at the Project Site and used for the Work. A qualified layout engineer, surveyor, or technical specialist must be assigned to the Contractor's crew for this Work. This equipment and personnel must be available, at no additional cost to Ecology for the purpose of verifying layout, conformance of grading design and required tolerance precision for grading, correct restoration to the final elevation points and marks, and certifying the accuracy of Work.
- B. Contractor is responsible for preserving all benchmarks, stakes, and markings on existing features, and the replacement of any that are displaced or missing.

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1. Contractor is responsible for replacing all benchmarks, stakes, and markings disturbed between the time pre-construction surveys are performed at each Property and the time Work is completed at each Property.
2. Contractor shall use methods that allow for potential disturbance of benchmarks, stacks, and markings by Property Owners and/or Tenants.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 PROPERTY BOUNDARY SURVEY**

- A. Contractor shall survey the property lines for each Property in the Project Site and clearly mark the property corners prior to commencing Work. Reference information for the property line alignments shall be obtained from the most up-to-date version of Snohomish County Tax Parcel records by Contractor.
  1. Property lines indicated on the site maps in **Appendix A01 - Contract Drawings** represent property boundary information obtained from Snohomish County Tax Parcel GIS records and are provided for reference only.
  2. Contractor shall not allow Work to damage adjacent Properties or site features within those Properties.
  3. Work for each Property shall be extended into the City of Everett public right-of-way, up to the City-owned hardscape (i.e., concrete sidewalk, curb, or asphalt or concrete-paved street, as applicable). The areas between the property line nearest the City right-of-way and the City-owned hardscape have been included in the quantities specified for each Property in **Appendix A01 - Contract Drawings**.
- B. Permission for extending the Work into these areas of public right-of-way has been granted to Ecology by the City of Everett in accordance with Ecology's agreements with the City of Everett regarding the performance of this Work.

**3.02 ELEVATION CONTROL SURVEY**

- A. Contractor shall survey a grid of area elevation control points for each Property in all areas where Work shall be performed. Surveys of area elevation control points shall include both horizontal and vertical dimensions from a known benchmark maintained throughout the Work.
  1. Area elevation control points shall be located on a grid with a maximum spacing of ten (10) horizontal feet between survey points.
  2. Area elevation control points shall capture all changes in grade, which may require closer survey points than the spacing noted above.

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3. Area elevation control points shall not be located within two (2) horizontal feet of any building or site feature specified to Remain In Place, unless compliance with this requirement shall prevent the location of any elevation points (such as between structures or Site features less than four (4) feet apart).
  4. Area elevation control points shall not be located within six (6) horizontal feet of the base of mature trees having a diameter of twelve (12) inches or greater (as measured four [4] vertical feet from the tree base) and specified in the Contract Documents to Remain In Place.
  5. For any slope in a Property greater than three (3) vertical feet in elevation change and steeper than 3 (horizontal) to 1 (vertical), Contractor shall collect additional area elevation control points as necessary to provide a minimum of three (3) elevation control points for each ten (10) horizontal feet of slope. The minimum three (3) elevation control points shall be located at the crest, toe, and approximate middle of the slope.
- B. Contractor shall survey and mark final elevation control marks on buildings and surface of permanent Site features specified as Remain In Place that are directly bordering and/or immediately adjacent to all excavated areas. This shall include, but not be limited to, buildings, pavement edges, sidewalk edges, walls, patios, fence posts that Remain in Place, and fence posts the Contractor does not anticipate removing. Survey of final elevation control marks shall include both horizontal and vertical from a known benchmark maintained throughout the Work.
1. Marks shall have a maximum horizontal spacing of ten (10) feet.
  2. Marks shall be maintained by the Contractor until final grading and specified surface restoration has been completed.
  3. Contractor shall completely remove all final elevation control marks before Final Completion.
- C. Drainage concerns on each Property shall be immediately brought to Ecology's attention for resolution.

**3.03 EXISTING SITE FEATURE SURVEY**

- A. For each Property, Contractor shall survey the alignments of existing walls, fences, landscape bed outlines, and other distinguishable finish surface types such as rockeries and rock-covered slopes. Contractor shall use the survey as the basis for the construction or reconstruction of Site features, including differences in adjacent grades, such as a lawn to landscape bed interface.
1. Unless otherwise indicated, the base of the existing wall, rockery, or rock-covered slope shall be used for the alignment of reconstructed existing walls or the replacement of rockeries or rock-covered slopes by walls.

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2. Surveys of retaining walls shall include elevations for both top and bottom of wall for every ten (10) lineal feet of wall, but at least the beginning and end.
  3. Survey the location of items to Remove and Reinstall or Remain in Place that are elected to be moved/replaced (with Ecology approval) per **Section 02 22 00 – Selective Site Demolition**, to facilitate replacement.
- B. For each Property, Contractor shall survey the horizontal locations and elevations of the surface feature elements of all private utilities. This shall include, but not be limited to, irrigation/sprinkler heads, utility access boxes, control systems, and surface piping and appurtenances. Contractor shall use the survey as the basis for the construction or reconstruction of preconstruction private utilities.
- C. For each Property, Contractor shall survey the horizontal locations and, for site features above the preconstruction ground surface, vertical height of each feature. This shall include, but not be limited to, clothesline poles, fence posts, buildings, and other structures (if disturbed by Work), and other site and landscape structures and features (if disturbed by Work).

**3.04 SURVEY OF TOPOGRAPHY DURING WORK**

- A. Contractor shall regularly verify Work is being performed in conformance with relative depths below all elevation control points and final elevation control marks, in order to verify conformance, the tolerances specified for each type of Work.
- B. Post Excavation Survey: At a minimum, survey data shall be collected at each elevation control point. The elevation control points shall be the same locations of survey shots as used for the pre-excavation surveys and recorded by Contractor after excavation to depth specified for each Decision Unit of each Property as specified in **Appendix A01 - Contract Drawings**, and **Article 1.05.D**.
- C. Ecology may request the Contractor collect and record survey data at the following stages of the Work:
1. After backfill and compaction of common fill completed for all control points and marks for each Decision Unit of each Property.
  2. After backfill and light rolling of topsoil completed for all control points and marks for each Decision Unit of each Property.

**3.05 POST RESTORATION SURVEY**

- A. Once restoration Work in the vicinity of each elevation control point and final elevation mark for each Decision Unit of each Property is complete. The elevation control points shall be the same locations of survey shots as used for the pre-excavation and post-excavation surveys. Contractor shall survey each elevation control point and final elevation mark a minimum of one (1) time during the Maintenance and Finishing Period for each Property.

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**SECTION 01 71 23 – FIELD ENGINEERING**

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1. Contractor shall survey between thirty (30) and forty (40) working days into the Maintenance and Finishing Period for each Property.
- B. Where surveying performed after restoration Work has been completed, but before Final Completion of the Project, indicates the ground in the vicinity of an elevation control point and/or final elevation control mark has settled below the specified tolerance for surface restoration, Contractor shall determine area of settlement, restore grade with additional subgrade material representative of that used (e.g. topsoil in areas of sod) to an elevation that satisfies final grade requirements once surface materials are reinstalled. Settlement corrections shall be at no additional cost to Ecology.
- C. If other Project data demonstrates suspect grading results, additional surveying of elevation control points and verification of restored grade to final elevation control marks may be requested by Ecology at any time up until Final Completion, to verify surface topography has been restored to pre-construction elevations and topography.
  1. Additional surveying shall be at no additional cost to Ecology.
- D. Contractor shall provide current and past survey data during Contract Time for all Properties where Work has been performed or is in the process of being performed, as requested by Ecology. All survey data shall be included in the Project Record for submission to Ecology before Final Completion.

**3.06 SURVEY DOCUMENTATION**

- A. The following documentation shall be prepared and submitted to Ecology or Ecology's Representative:
  1. General: The Contractor shall be responsible to coordinate the communication of surveys/data during work and after restoration to minimize any delay in transitioning work from one property to the next. Ecology or Ecology's Representative may take up to 24 hours, once provided with the necessary progress survey data, to determine compliance with the specifications.
  2. Field notes, drawings, quantity computations, and data point files shall be submitted to Ecology or Ecology's Representative within 5 working days after completion of each surveyed property. Survey documentation shall be submitted in accordance with **Section 01 33 00 – Submittal Procedures**.
  3. Final Acceptance/Post Restoration Survey documentation shall be submitted to Ecology or Ecology's Representative at least five (5) working days before the Final Completion Inspection as noted in Article 3.05 of this Section.
  4. Field Notes: A bound copy, or pdf, of all field notes taken during the topographic survey shall be included in the documentation submitted for each survey.
  5. Electronic Storage of Data: All survey data collected by an electronic data acquisition system shall be submitted as an electronic file in a current AutoCAD

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software format. At a minimum, data for each survey point shall include a sequential reference number, the elevation, appropriate coordinates, and a descriptive note.

6. Survey Documentation:

- i. Data Table: Elevation data from survey of control points shall be submitted in table format, with a separate table for each property. Tables shall be organized with list of control points in the left column and data from the pre-excavation, post-remediation, and post-restoration surveys presented in the following columns. Tables shall also have columns indicating the differences in elevations between the post-remediation and pre-excavation surveys, and the post-restoration and pre-excavation surveys. Prepare and submit table in EXCEL spreadsheet electronic file. For each survey and for each surveyed point (i.e., pre-construction, post-excavation, and as-built), provide horizontal coordinates and vertical elevation. For final as-built submittal, also submit final table in PDF file format, with signatures by General Contractor and Surveyor.
- ii. Contour Maps: For all subject properties, the Contractor shall submit a contour map, in both electronic format (CAD) and pdf, with 0.5-foot intervals of the area surveyed, and indicating the location of the control points and the control point number corresponding to the control point numbers listed in the data tables.
- iii. The Contractor's firm name shall be printed on each sheet along with Project/Contract name, number, property address, and date of each survey. The Contractor's project manager or chief of survey party shall sign each sheet.
- iv. Quantity Calculations: For Ecology requested surveys, quantities shall be computed by the Contractor to the nearest cubic yard. Tabular summaries shall be submitted to show standard depth, over-excavation, and total excavation quantities, over-placement, and total placement quantities. One copy of excavation quantity calculations shall be included with the related survey documentation.
- v. Certification of Compliance: A certificate signed and sealed by the Surveyor, certifying that the work as constructed conforms to the lines and grades shown on the Contract Drawings shall be submitted with other documentation for the Final Acceptance survey.

**END OF SECTION 01 71 23**



**SECTION 01 74 19**  
**CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This section includes remove of construction waste and debris and references other sections for disposal of contaminated material.

**1.02 MTCA REGULATED WASTE / DEBRIS DISPOSAL**

- A. Refer to **Section 02 61 13 - Excavation and Handling of Contaminated Material**.

**1.03 NON-MODEL TOXICS CONTROL ACT (MTCA) REGULATED DEBRIS DISPOSAL**

- A. No disposal site has been provided by Ecology for any debris or waste generated by or resulting from the specified Work.
- B. All waste and debris removed from the Work Site and not specified for reuse becomes the responsibility of the Contractor and disposed of off the Project property in areas authorized by the applicable local, county, and/or state agencies and in accordance with current rules and regulations governing the disposal of solid waste. All disposal fees and sundry charges are paid by the Contractor and are incidental to the contract. Excavated soil shall not be disposed of under this provision.
- C. Burning or burying of debris, rubbish, or other waste material within the Project Site shall not be permitted on this Project.

**1.04 RELATED SECTIONS**

- A. Section 01 35 43.10 - Green Construction Practices
- B. Section 01 50 00 - Temporary Facilities and Controls
- C. Section 02 41 13 - Selective Site Demolition
- D. Section 02 61 13 - Excavation and Handling of Contaminated Material

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

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**3.01 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from Site as allowed by law, including recycling or salvage of asphalt, concrete, and building materials. Contractor shall cover all loads during transportation.
- B. Leave Site in clean condition, ready for subsequent Work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**3.02 PROGRESS CLEANING**

- D. Remove rubbish and debris from the project property daily unless otherwise directed, so as not to allow accumulation. Store materials that cannot be removed daily only in areas specified by Ecology.
- E. Maintain Work Sites in a neat and orderly condition at all times.
- F. All cleanup operations are incidental to the Contract and no extra compensation will be made.

**3.03 FINAL CLEAN UP**

- A. Clean up the entire construction site and all grounds occupied by the Contractor in connection with the Work. Upon completion of the Work and prior to final inspection.
- B. Fine grade, rake clean, and smooth all worksites and disturbed areas. Remove from the Project Site all rubbish, surplus and discarded materials, falsework, temporary structures, temporary staking/survey controls, equipment, and debris.
- C. Leave all areas of the Project clean and ready for property owner and intended use prior to completion of Work at each property.

**END OF SECTION 01 74 19**

**SECTION 01 77 00**  
**CLOSEOUT PROCEDURES**

**PART 1 - GENERAL**

**1.01 FINAL CLEANUP**

- A. Execute final Project cleanup prior to final inspection.

**1.02 RELATED SECTIONS**

- A. Section 00 72 00 - General Conditions, Articles 6.07 Substantial Completion and 6.09 Final Completion, Acceptance, and Payment
- B. Section 01 10 00 - Summary
- C. Section 01 11 13 - Work Covered by Contract Documents
- D. Section 01 71 23 - Field Engineering
- E. Section 01 74 19 - Construction Waste Management and Disposal

**1.03 PROJECT RECORD**

- A. As part of Substantial Completion inspection, furnish draft Project Record including the following items to the Engineer and Ecology, in accordance with **Section 00 72 00 - General Conditions, Part 4.02 Project Record**. The Project Record shall be an electronic pdf file organized with a table of contents and at least the sections noted below (including section page dividers and pdf bookmarks). Also provide Project Record in original file format (Word, AutoCAD, GIS, etc.). The Project Record also includes the following documents:
  - 1. Addenda.
  - 2. Change Orders, field directives, and other modifications to the Contract.
  - 3. Reviewed shop drawings, product data, and samples.
  - 4. Existing Conditions Assessment and As-Built survey information.
  - 5. Disposal tickets and manifests.
  - 6. Reports on emergency response actions/spill incidents.
  - 7. Records of all site work including Contractor daily field reports (**Section 01 45 16.13**).
  - 8. Construction quality control reports.

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**SECTION 01 77 00 – CLOSEOUT PROCEDURES**

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9. Final answered submittals, answered RFIs, and associated tracking logs (**Section 01 33 00, Article 1.05**).
10. Best Management Practice (BMP) inspection reports.
11. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  - a. Field changes of location, dimension, and detail.
  - b. Details not on original Contract drawings.
  - c. Clearly record any deviations in horizontal extent or depth of excavation, backfill, or restoration from the extents indicated on the drawings. Document reason for deviation. Note if change order was issued.
- B. Incorporate any comments received from Ecology into the final Record Document file and deliver to Ecology prior to Final Completion.
- C. Update Project Record weekly and keep on site: The Project Record will be maintained on the project site throughout the construction and will be clearly labeled "PROJECT RECORD." The Project Record will be updated at least weekly noting all changes and will be available to Ecology at all times.
- D. Furnish As-Built survey and survey documentation information per **Section 01 71 23 - Field Engineering**.
- E. Holding Final Payment: Payment will be held to no more than 95% of the contract amount until Record Drawings, As-Built Survey, survey documentation, and project documentation are received by Ecology. Invoice for 100% of the contract amount may be submitted after receipt and approval of Record Drawings and documentation by Ecology.

**1.04 SUBSTANTIAL COMPLETION**

- A. Reference **Section 00 72 00 - General Conditions, Article 6.07 Substantial Completion** and **Section 00 11 16 - Invitation for Bid**.
- B. Definition for this project: Substantial Completion shall include, but not be limited to, the following for all Properties in the Project:
  1. All earthwork completed.
  2. All lawn sod restoration completed.
    - a. Maintenance and finishing periods shall be in-progress and/or completed for all Properties.
  3. All gravel surfacing restoration completed.
  4. All new hardscape work (concrete and asphalt) completed.
  5. All retaining wall and other structural construction completed.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 77 00 – CLOSEOUT PROCEDURES**

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6. Most or all hardscape repair work completed.
7. Most or all fence and landscape feature restoration completed.
8. Most or all planting of replacement trees, shrubs, and vegetation completed.
9. Most or all correction of grade issues identified by surveying after sod placed completed.

**1.05 SUBSTANTIAL COMPLETION INSPECTION**

- A. Notify Ecology in writing a minimum of ten (10) working days in advance of the scheduled date of Substantial Completion to schedule an inspection to determine if Substantial Completion has been achieved. Included in that time is the required notification Ecology must provide to all Property Owners and Tenants.
  1. Subject to Ecology availability, Contractor may schedule multiple days of inspection in order to inspect all Properties.
- B. Before requesting inspection for Substantial Completion by Ecology, the Contractor shall complete the following activities.
  1. Unless required for continuing maintenance and/or finishing Work on Properties and/or permitted Work as specified in this Section, Contractor shall discontinue use and remove temporary facilities and utilities from the Project Site. Contractor shall also remove all construction tools, mock-ups, and similar elements.
  2. Unless required for continuing maintenance and/or finishing Work on Properties and/or permitted Work as specified in this Section, Contractor shall remove all temporary protection installed for protection of the Work and vegetation, buildings, structures, and other site features and improvements that were protected during Work.
- C. On receipt of a request for an inspection for Substantial Completion by Ecology, Ecology shall proceed with the inspection with the Contractor. This inspection shall include the development of a punch list of items that either require the Contractor's attention and correction in order to achieve Substantial Completion, or, to identify work remaining to be accomplished in order for the contractor to achieve Final Completion of the Project.
  1. Ecology may add additional items to the punch list at any time between Substantial Completion and Final Completion.
- D. If the Project is not deemed Substantially Complete, Ecology shall conduct a repeat inspection when requested by the Contractor, provided the Contractor assures Ecology that the Work is Substantially Completed.
  1. Ecology shall issue a written notice of Substantial Completion following this inspection or shall advise Contractor of Work that must be corrected or completed before the notice will be issued.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 77 00 – CLOSEOUT PROCEDURES**

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- E. Results of the completed Substantial Completion inspection shall form the basis of identifying any outstanding requirements for achieving Final Completion

**1.06 MAINTENANCE PERIOD**

- A. As noted in Section 32 92 23 – Sodding, Section 32 92 33 – Shrubs, and Section 32 92 43 – Trees the maintenance period for each property starts after placement of sod, shrubs and plants, and trees and continues for 60 calendar days.
- B. For each property, at 45 calendar days into the 60-calendar-day maintenance period, Ecology will inspect the work and provide a maintenance punch list indicating items that the Contractor shall complete before the end of the 60-calendar-day maintenance period.

**1.07 FINAL COMPLETION INSPECTION AND ACCEPTANCE**

- A. Reference **Section 00 72 00 - General Conditions, Article 6.09 Final Completion, Acceptance, and Payment.**
- B. Notify Ecology when all punch list items identified during the Substantial Completion inspection and all remaining Work items identified by Ecology or Contractor as the specified Maintenance and Finishing Periods are completed for all Properties. Then Contractor and Ecology shall visit and inspection all Properties together to verify that Contract requirements for each Property, including corrective actions on punch list items are complete.
- C. Provide Ecology a minimum of ten (10) working days' notice to request a Final Completion inspection. Included in that time is the required notification Ecology must provide to all Property Owners and Tenants.
- D. After Ecology verifies that all project work complete, post-restoration survey (**Article 3.05 of Section 01 71 23**) is complete, and confirms that the Project Record file is complete, Ecology will issue a Notice of Final Completion to the Contractor.
- E. Final Acceptance shall be issued when the final invoice is approved by Ecology and all Affidavits of Wages paid are on file with Labor and Industries for the General Contractor and all subcontractors utilized on this project, in accordance with the General Conditions.

**1.08 WARRANTY INSPECTION**

- A. An inspection visit of the Work shall be performed by Contractor and Ecology approximately 20 working days prior to the end of the 12-month warranty period that begins at Substantial Completion.
  - 1. Contractor shall contact Ecology to coordinate these inspection visits a minimum of ten (10) working days in advance.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 77 00 – CLOSEOUT PROCEDURES**

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- B. During this inspection visit, Contractor and Ecology shall view the condition of Work since Final Completion, verify whether the Work still meets the requirements and Specifications of the Contract Documents, and identify deficiencies in the Work that do not conform to the Contract Documents.
  - 1. Work under warranty that does not meet the requirements and Specifications of the Contract Documents shall be considered Remedy Work and scheduled for repair or replacement, as appropriate.

**1.09 REMEDY WORK**

- A. Scheduling for Remedy Work shall be submitted to Ecology by Contractor after the warranty inspection visit. All Remedy Work shall be performed and completed no later than twenty (20) working days after the inspection visit, unless otherwise authorized by Ecology.
- B. Work to be remedied shall be replaced or rebuilt to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work that is not in compliance with the Contract Documents.

**1.10 CERTIFICATE AND PERMITS**

- A. Submit signed original certificates of compliance and final approval from Authorities Having Jurisdiction.

**1.11 OUTSTANDING DOCUMENTS**

- A. Expedite and submit outstanding administrative documents including outstanding documents, including but not limited to, cost proposals and Change Orders.

**1.12 CLOSEOUT PROCEDURE**

- A. The general project closeout procedure is as outlined in **Table 01 77 00-1**. This table is provided as a general guide for convenience, but specification requirements take precedent if there is a conflict.

**PART 2 – PRODUCTS (NOT USED)**

**PART 3 – EXECUTION (NOT USED)**

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 77 00 – CLOSEOUT PROCEDURES**

**Table 01 77 00-1: Everett Smelter Cleanup: Property Close Out Procedure**

<b>Item Timeframe</b>	<b>Event</b>	<b>Staff Involved</b>	<b>Purpose</b>	<b>Comments</b>
<b>Substantial Completion</b>				
At least 10 working days before anticipated Substantial Completion (Sect. 01 77 00, 1.05)	Notify Ecology of work completion and readiness for Substantial Completion inspection for a/several property(s)	Contractor	Initial review of work and inspection. Ecology gets feedback from the owner.	Includes Contractor preliminary punch list (01 31 00, 1.04), restoration, and Project Record
Once Ecology confirms adequate information provided for inspection	Substantial Completion inspection	Ecology/ Contractor	Achieve Substantial Completion	--
Within 3 working days of above inspection	Substantial Completion Inspection Punch List for property(s)	Ecology	Provide Inspection Punch list to Contractor	–
Substantial Completion Date	Notice of Substantial Completion	Ecology	Document Substantial Completion	--
<b>Maintenance Period</b>				
Once all sod, plants, shrubs, and trees are installed at a property (32 92 23, 3.06; 32 92 33, 3.07; 32 93 43, 3.07)	Starts landscaping maintenance period for each property. Protection required through Final Completion.	Contractor	Starts 60-calendar-day maintenance period	–
45 calendar days into 60-calendar-day maintenance period (01 77 00, 1.06)	Ecology inspects property	Ecology	Provide Maintenance Punch List	–
30 to 40 working days into Maintenance Period for a property (01 71 23, 3.05)	Post-Restoration Survey. Submit to Ecology within 5 working days of survey.	Contractor	Confirm if settlement requires maintenance work	–
Within 5 working days of receiving contractor survey results	Ecology reviews contractor survey results	Ecology	Review elevation control point submittal and inform contractor of required actions	–
60 calendar days into Maintenance Period for a property	Contractor completes Maintenance Punch List for each property	Contractor	Complete Maintenance Punch List	–



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**SECTION 01 77 00 – CLOSEOUT PROCEDURES**

<b>Final Completion Period</b>				
At least 10 working days before anticipated Final Completion (01 77 00, 1.07)	Notify to Ecology of work completion and readiness for Final Completion inspection for a/several property(s)	Contractor	Complete all Substantial Completion inspection Punch List items	Includes supplemental items
Once Ecology confirms adequate information provided for inspection	Final Inspection	Ecology/ Contractor	Provide Final Inspection Punch List identifying items to be completed	–
Within 3 working days of above inspection	Final Completion Inspection Punch List for property(s)	Ecology	Provide Inspection Punch list to Contractor	–
Prior to Ecology Final Completion Letter	Contractor completes Final Inspection Punch List Items	Contractor	To achieve Final Completion	–
Ecology confirms all Final Inspection Punch List and contract items are complete	Ecology issues Final Completion letter	Ecology	Document Final Completion	–
<b>Warranty Period and Remedy Work</b>				
20 working days before end of 1 year Warranty Period (00 72 00, 5.16.D; 01 77 00, 1.08; 32 92 23, 1.07, 32 93 33, 1.07, 32 93 43, 1.07)	Contractor warranty inspection. Warranty Period starts after Substantial Completion date.	Ecology/ Contractor	Confirm work meets requirements and specifications of the contract and identify deficiencies in work	5 working days notice for property owners
Within 20 working days of notification of warranty items (01 77 00, 1.08)	Contractor to complete Remedy Work	Contractor	Correct deficiencies during Warranty Period	–
Per General Conditions (00 72 00; 01 77 00, 1.07)	Final Acceptance	Ecology, Contractor	Final invoice and final project record due per General Conditions (00 72 00, 6.09; 01 77 00, 1.03E)	–

**END OF SECTION 01 77 00**

**SECTION 02 22 00**  
**EXISTING CONDITIONS ASSESSMENT**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Prior to commencing excavation or disturbing each Property, Contractor shall perform all necessary existing conditions assessments for each Property as to facilitate and permit the Contractor to return and restore the Property to match its original condition or conditions as specified in the Contract Documents.
- B. Existing conditions assessments shall include, but are not limited to:
  - 1. Photographic and/or video documentation of the exterior of the Property before commencing construction. This documentation shall include the exterior visual and physical condition of buildings and other structures present on the Property.
  - 2. Survey of existing surface grades and elevations in accordance with **Section 01 71 23 - Field Engineering**.
  - 3. Inventories of trees, shrubs, ground cover, and vegetation to be replaced during the restoration of each Property. Inventory shall be prepared by Contractor or representative of the Contractor's nursery, garden, and/or greenhouse supplier(s); and shall include specific identification and locations of the specific trees, shrubs, ground cover, and vegetation.
- C. The Contractor shall provide photographs or video, sufficiently detailed, depicting existing conditions of adjoining buildings and construction and site improvements whose alteration or marring might be misconstrued as damage caused by selective demolition operations.
- D. All areas found to be damaged, if not identified in the Contractor's documentation, shall be repaired and/or replaced at the Contractor's expense.
- E. Contractor shall verify with Ecology the limits of clearing, tree and plant removal, and Site improvement and development removal with Ecology prior to commencing work. Prior to beginning site removals and clearing for each Property, Contractor shall meet with an Ecology Representative and review all proposed utility layouts on Site. Contractor shall indicate all existing trees, shrubs and landscaping as well as Site improvements that will be affected by construction.

**1.02 RELATED SECTIONS**

- A. Section 01 71 23 - Field Engineering
- B. Section 02 22 00 - Selective Site Demolition

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 22 00 – EXISTING CONDITIONS ASSESSMENT**

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**1.03 SUBMITTALS**

- A. Contractor shall submit an existing conditions assessment schedule with the Preliminary Project Schedule submittal demonstrating the schedule to complete the existing conditions assessment requirements for each Property.
1. Existing conditions assessments for all Properties in Project Site shall be completed before clearing, grubbing, or earthwork is begun on any Property in the Project Site, unless otherwise permitted by Ecology in writing.
  2. Within the assessment, the Contractor shall markup existing Drawings showing proposed tree protection areas. These areas shall also be marked in the field and verified and approved by Ecology prior to any work commencing.
  3. Contractor existing conditions assessment schedule shall provide Ecology a minimum of five (5) working days' notice in advance of Contractor activities for each Property to permit notification of Property Owners and Tenants.
  4. Contractor may coordinate this Work so existing condition assessments and surveying specified in **Section 01 71 23 - Field Engineering** can be performed concurrently.
- B. At least ten (10) working days prior to the start of excavation and before proceeding with Contractor's existing conditions assessments of individual Properties, Contractor shall submit to Ecology the Contractor's Surface and Landscape Restoration Quality Control Plan for maintaining quality control for the surface and landscape restoration of all Properties and conformance with all Specifications.
1. This plan shall incorporate, but not be limited to, the following elements:
    - a. Description of methods for comprehensive documentation of existing conditions for each Property.
    - b. Description of methods for surveying all required elevation benchmarks, references, and control points for each Property as specified in **Section 01 71 23 - Field Engineering**. This shall include establishment of initial points, frequency of verification of elevation control during Work, final confirmation and documentation at each significant stage of Work, and removal as necessary of marks on existing site features and buildings.
    - c. Plant variety identification. This shall include planning to permit sufficient time for Ecology communications with Property Owner and/or Tenant(s) without causing delay to the Work. This shall also include Contractor verification of availability of all replacement plants within the Contract Time.
    - d. Identification of sources for replacement materials where Contractor removes pre-construction materials of site features during Work.
    - e. Plans for removing, handling, cleaning, storing, and reinstalling site feature materials specified Remove and Reinstall. This shall include procedures for

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 22 00 – EXISTING CONDITIONS ASSESSMENT**

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- making requests of Ecology to use new materials as replacements in and for site features specified Remove and Reinstall during Work.
- f. Determination of location and configuration of original site and landscape features to be restored.
  - g. Determination of locations of replacement plants, shrubs, and trees to restore to original location unless otherwise specified in **Appendix A01 - Contract Drawings**.
  - h. Communication and coordination of all existing site assessment materials, data, and restoration information with field personnel crews and subcontractors.
  - i. Procedures for identification and protection of buildings and site features specified to Remain In Place during Work.
  - j. Communication of questions to Ecology relating to landscape restoration. Sufficient time shall be provided for Ecology communications with Property Owner and Tenant(s).
  - k. Contractor verification of accuracy of landscape restoration for each Property.
  - l. All other quality control procedures determined by Contractor to be necessary to meet the Contract Documents.
- C. The Contractor shall markup existing Contract Drawings based on results from assessment to denote discrepancies of site features including utilities and irrigation system. This shall be submitted to Ecology prior to starting clearing, grubbing, or earthwork, unless approved otherwise by Ecology in writing. Contractor shall include all plant and existing feature inventories with the Project Record for submission to Ecology before Final Acceptance.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 UTILITY LOCATION**

- A. Contractor shall locate all existing utilities so as to avoid damage or disturbance in accordance with **Appendix A01 - Contract Drawings**. For aid in utility location call “Dial Dig 1-800-424-5555” a minimum of three (3) working days prior to beginning Work on any Property.
- B. Contractor shall provide and pay for additional locating/markings as required to locate private and auxiliary utilities for each Property at no additional cost to Ecology.
- C. Contractor is responsible for avoiding damage to all marked and located utilities.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 22 00 – EXISTING CONDITIONS ASSESSMENT**

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- D. Contractor shall notify Ecology promptly if underground utilities not shown in the Contract Documents are identified through the Contractor's location efforts or are encountered.

**3.02 INVENTORY OF AREA SHAPES AND CONTENT FOR SITE FEATURES**

- A. Contractor shall include in Contractor's existing conditions assessment and documentation of each Property sufficient description of the alignment(s) of landscape beds. The individual site maps in **Appendix A01 - Contract Drawings** do not necessarily represent accurately all lines and curves associated with each feature.
- B. Where curves exist in site feature area edges, Contractor shall obtain all visual documentation, survey, and measurements to permit accurate restoration of curves during Work for each Property.

**3.03 CLARIFICATION ON IDENTIFYING AREA SURFACES**

- A. In areas where pre-construction grass is observed to be sparse or partially overgrown by weeds, and the area is not individually specified in **Appendix A01 - Contract Drawings** with a different surface restoration direction, Contractor shall restore these areas with sod.
- B. Where Contractor cannot determine a pre-construction surface for a Property during Contractor's existing conditions assessment after review of the Specifications for that Property, Contractor shall issue a Request for Interpretation (RFI) and receive a response from Ecology prior to clearing Work on that Property.

**3.04 TREE/SHUB/VEGETATION INVENTORY**

- A. Contractor shall include in Contractor's existing conditions assessment and documentation of each Property an inventory of all the trees, shrubs, and other vegetation specified to either be Removed and Replaced In Kind or Remain In Place. The purpose of the assessment shall be to determine an accurate and detailed list of "in kind" replacements of all existing trees, shrubs, ground cover and other plants to be Removed and Replaced In Kind, or be protected as Remain In Place during the Work, unless otherwise specified in **Appendix A01 - Contract Drawings**.
- B. Inventories of trees, shrubs, and other vegetation shall include locations in order to restore replacements to their preconstruction locations, unless otherwise specified in **Appendix A01 - Contract Drawings**.
- C. Contractor shall involve representatives of Contractor's nurseries and other plant suppliers in assessments as necessary to provide accurate identification of all trees, shrubs, and other vegetation specified to be Removed and Replaced In Kind in **Appendix A01 - Contract Drawings**.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 22 00 – EXISTING CONDITIONS ASSESSMENT**

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- D. If uncertainty remains regarding the identification of specific trees, shrubs, and other vegetation, Contractor shall notify Ecology promptly.
  - 1. Where possible, Ecology provided specifically-requested colors and/or varieties for vegetation, shrubs, and trees in the Work area in **Appendix A01 - Contract Drawings**.
  - 2. When possible, Ecology shall continue to gather as much information on existing vegetation, shrubs, bulbs, and trees as possible during the construction period. Ecology shall communicate information to Contractor promptly.
  - 3. If no further information on specific variety or color is available by the time of landscape restoration, Contractor shall match as accurately as possible the kind and type of each pre-construction tree, shrub, and other vegetation.

**3.05 SITE FEATURE INVENTORY**

- A. Contractor shall include in Contractor's existing conditions assessment and documentation of each Property an inventory of all non-living site features and structures specified to be Remove, Remove and Reinstall, Remove and Salvage, and Remain. The purpose of the assessment shall be to determine an accurate and detailed list of site features for each Property that may or shall be affected by Contractor's Work.
  - 1. This shall include smaller Site features contained within larger features, such as edging as a part of specified landscape beds.
- B. Inventories of site features shall include locations and, as applicable, alignment and orientation information, in order to reinstall or replace site features to their preconstruction locations and configurations, unless otherwise specified in **Appendix A01 - Contract Drawings**.
- C. Contractor existing conditions assessment shall verify that Contractor can obtain same new materials during Contract Time in instances where Contractor shall replace materials of site features rather than reinstall site features with pre-construction materials.
- D. If uncertainty existing about Contractor's ability to preserve site features specified to Remain in Place and/or Remove and Reinstall individual site features as specified in the Project Manual, Contractor shall notify Ecology promptly through the RFI process.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 22 00 – EXISTING CONDITIONS ASSESSMENT**

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**3.06 UNFORESEEN PHYSICAL CONDITIONS**

- A. If Contractor encounters conditions at the Project Site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Project Manual, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Project Manual, then Contractor shall give written notice to Ecology promptly before conditions are disturbed and in no event later than five (5) working days after the first observance of the conditions.

**END OF SECTION 02 22 00**

**SECTION 02 41 13**  
**SELECTIVE SITE DEMOLITION**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Select Site features and improvements in the Project Site shall be demolished by Contractor. Demolished select Site features are either to be salvaged, reinstalled, or replaced after completion of earthwork.
  - 1. Existing Site features being replaced shall be removed from the Project Site for proper disposal.
  - 2. Site features and improvements subject to selective site demolition are identified and specified in **Appendix A01 - Contract Drawings**.
- B. Additionally, the Contractor shall remove all landscape features and improvements in the areas of Work before commencing excavations unless specified as Remain. Removed landscape features and improvements shall be restored by Contractor in their pre-construction condition and configuration and using the original materials removed, unless otherwise indicated in the Contract Documents.
  - 1. Contractor shall store original materials on site to be reused during restoration Work.
  - 2. Contractor may store original materials off site provided Contractor can provide a suitable location for storage and protection of materials at no additional cost to Ecology.

**1.02 RELATED SECTIONS**

- A. Section 01 11 13 - Work Covered by Contract Documents
- B. Section 01 35 43.10 - Green Construction Practices
- C. Section 01 56 39 - Temporary Tree and Plant Protection
- D. Section 01 74 19 - Construction Waste Management and Disposal
- E. Section 02 22 00 - Existing Conditions Assessment
- F. Section 02 61 13 - Excavation and Handling of Contaminated Material
- G. Section 31 11 00 - Clearing and Grubbing



**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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**1.03 DEFINITIONS**

- A. Remove: Remove and legally dispose of these items except those indicated to be reinstalled or salvaged.
- B. Remove and Salvage: Items shall remain the Property Owner's or Tenants' property. Carefully remove items and locate them as directed by the Ecology Representative to protect against damage. If packed or crated, identify contents of containers.
- C. Remove and Reinstall: Unless identified in one of the other categories by the Project Manual, Contractor shall assume that all movable items and Site features in the Project Site shall be Remove and Reinstall. Contractor shall carefully remove items; clean, service, and otherwise prepare them for reuse; store and protect against damage; and reinstall items in the same locations and configurations as their pre-construction condition or in locations indicated.
- D. Remain/Remain In Place: Protect in place and leave undisturbed items designated Remain during construction against damage and soiling, including during selective demolition and earthwork activities.
  - 1. If authorized by Ecology in writing, items to Remain may be moved or removed by Contractor to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations and configurations.
    - a. This shall be done at no additional cost to Ecology and with Contractor assuming all risks associated with loss or damage.
  - 2. All single-family residential buildings and other large, permanent buildings (i.e., garages, large shops on concrete slabs, etc.) shall be considered Remain by Contractor, unless otherwise indicated in the Project Manual.
    - a. Typically, and unless otherwise indicated herein, the following shall be assumed to Remain: concrete slabs-on-grade, asphalt or concrete driveways, public service utilities, and utility poles.
- E. Remove and Replace In Kind: Definition generally applies only to earthwork material and vegetation at the Project Site. Remove existing materials and vegetation during clearing activities and legally dispose of offsite. During restoration, Contractor shall replace material or plant young or juvenile replacement vegetation according to its identification and variety.

**1.04 SUBMITTALS**

- A. If requested by Ecology, Contractor shall submit a schedule of selective demolition activities compatible with the Construction Project Schedule indicating the following:
  - 1. Detailed sequence of selective demolition and removal work at each Property in the Project Site, with starting and ending dates for each activity, to ensure uninterrupted progress of Contractor's on-site operations.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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2. Interruption of utility services, if necessary.
  3. Coordination for shutoff, capping, and continuation of utility services, if necessary.
- B. Prior to each pay application or as requested by Ecology, Contractor shall submit landfill records indicating receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

**1.05 MATERIALS OWNERSHIP**

- A. Except for items or materials indicated to be salvaged, reinstalled, or otherwise indicated to remain the property of Ecology, Property Owner or Tenant, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option, provided disposal is legal.
1. While on site, demolished materials shall be maintained in a neat and tidy manner.
  2. Contractor is not permitted to burn demolished materials.
- B. Contractor shall promptly dispose of demolished materials, unless otherwise indicated. Contractor shall obtain all permits for transport and disposal of demolition debris and materials as required.
1. Comply with hauling and disposal regulations of authorities having jurisdiction.
  2. Do not allow demolished materials to accumulate at the Project Site.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 PREPARATION PROCEDURES**

- A. Notify Ecology and Engineer at least five (5) working days prior to beginning any demolition work.
- B. Examine the areas and conditions under which the work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
- C. Verify that active utilities have been located, disconnected, and capped.
- D. Survey and assess existing conditions and correlate with requirements indicated to determine extents of selective demolition, removal, disposal, cleaning, and/or storage required.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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- E. Verify the inventory, locations and configurations, and record the conditions of items to be removed and reinstalled and items to be removed and salvaged.
- F. When unanticipated mechanical, electrical, or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to Ecology accompanying a Request for Information (RFI).
- G. Survey the condition of buildings and other structures at each Property to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.
- H. Perform surveys as the Work progresses to detect and resolve hazards resulting from selective demolition activities.

**3.02 UTILITY SERVICES**

- A. Maintain existing private utilities indicated to remain in service and protect them against damage during selective demolition operations. Maintain existing public utilities in service during Work, unless otherwise authorized by Ecology.
- B. Do not interrupt existing public utilities serving occupied or operating buildings and facilities, except when authorized in writing by Ecology and authorities having jurisdiction.
  - 1. If interruption is required, limit service disconnection to less than four (4) hours or provide temporary services.
  - 2. Temporary services during interruptions to existing utilities shall be as acceptable to Ecology and to governing authorities.
- C. Locate, identify, disconnect, and seal or cap off indicated utility services serving areas to be selectively demolished, if appropriate.
  - 1. Arrange to shut off indicated utilities with utility companies.
  - 2. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of buildings or other facilities before proceeding with selective demolition.

**3.03 SELECTIVE DEMOLITION GENERAL PROCEDURES**

- A. Conduct demolition operations and remove debris and materials to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used buildings and facilities.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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- B. Do not close or obstruct streets, driveways, walks, parking lot areas or other adjacent occupied or used facilities except as specified herein without permission from Ecology and authorities having jurisdiction.
  - 1. Provide alternate routes around closed or obstructed traffic ways.
- C. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area. When applicable, provide the following.
  - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
  - 2. Protect existing site improvements, appurtenances, and landscaping to Remain.
  - 3. Provide temporary weather protection on exterior surfaces and new construction to ensure that no water leakage or damage occurs to structures or interior areas.
- D. Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of buildings or other structures to be selectively demolished.
  - 1. Strengthen or add new supports when required during the Work, including but not limited to the period of selective demolition.
- E. Demolish and remove existing construction only to the extent required for the Work as indicated in the Project Manual. Use methods required to complete Work within limitations of governing regulations and as follows:
  - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
  - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire suppression devices during flame-cutting operations.
  - 4. Maintain adequate ventilation when using cutting torches.
  - 5. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly, but legally, dispose of offsite.
  - 6. Dispose of demolished items and materials promptly. Onsite sale of removed items is prohibited.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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- F. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction, structure, or site developments to remain, using power-driven masonry saw or hand tools; do not use power-driven impact tools.
- G. The demolition and removal of concrete slabs on grade and/or sidewalks is generally not included in the work, unless noted otherwise on the **Appendix A01 - Contract Drawings**. Any damage to hardscapes such as concrete slabs, curbs, or sidewalks caused by the Contractor shall be removed and repaired appropriately at the Contractor's expense. Repair such hardscapes in accordance with City of Everett standards, **Section 03 30 00 - Cast-In-Place Concrete**, and/or **Section 32 16 00 - Curbs, Gutters, Sidewalks, and Driveways**.
- H. Conduct work to protect trees and plants to remain in accordance with **Section 01 56 39 - Temporary Tree and Plant Protection**.
- I. Upon completion of earthwork and the restoration of each Property, return all elements of site improvements, features and construction surfaces identified to remain or be restored to condition existing before start of selective demolition operations.

**3.04 POLLUTION CONTROL**

- A. Contractor shall provide services for effective air, noise, dust, and water pollution controls as required by local authorities having jurisdiction and as required by the Project Manual, NPDES CSWGP, and Contractor's SWPPP.
- B. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and soil.
  - 1. Comply with governing environmental protection regulations.
  - 2. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- C. Remove and transport debris in a manner that shall prevent spillage on adjacent surfaces and areas.
- D. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations.
  - 1. Return adjacent areas to condition existing before start of selective demolition as soon as practicable.

**3.05 OPERATION PROCEDURES**

- A. Start and complete Work in order or precedence, as established by approved schedule. Operational procedures and sequence of work is optional with Contractor, provided they do not infringe upon or violate schedule.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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- B. Execute Work to protect occupants from injury and discomfort. Provide protection to persons and property. Conduct Contractor activities to ensure minimum interference with roads, walks, entrances, exits, and other adjacent occupied facilities.
- C. Where temporary partitions are required in public areas, construct partitions of clean, painted, minimum 1/2-inch-thick plywood. In interior areas, adequately braced 1/4-inch pre-finished paneling may be used.
- D. Provide the following:
  - 1. Passageways, where necessary, to ensure safe passage of persons in or near areas of work.
  - 2. Substantial barricades and safety lights, as required.
  - 3. Temporary dust-proof curtains, as necessary, to prevent infiltration of dust into adjacent occupied areas.
  - 4. Temporary weather protection, as necessary, to prevent damage to existing facilities.

**3.06 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
- B. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
- C. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
- D. Do not close or obstruct roadways or sidewalks without permit.
- E. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

**3.07 SELECTIVE DEMOLITION FOR ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and/or existing online (GIS) record documents only.
- B. Verify that construction and utility alignments are as shown.
- C. Report discrepancies to Ecology and Engineer before disturbing existing installation.

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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- D. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- E. Remove existing Work as indicated and as required to accomplish new Work.
- F. Remove items indicated on Contract Drawings.
- G. Protect existing Work to remain.
- H. Perform cutting to accomplish removals neatly and as specified for cutting new Work.
- I. Leave remaining structures in safe condition.

**3.08 DEBRIS AND WASTE REMOVAL**

- A. See **Section 01 74 19 - Construction Waste Management and Disposal** for debris and waste removal.

**3.09 CUTTING AND REMOVAL**

- A. Neatly cut and remove materials and prepare openings to receive new Work. Straight- line saw cut all pavement at edge of removal limits.
- B. Remove masonry or concrete in small sections.
- C. Provide shoring, bracing, and other supports to prevent movement, settlement, or collapse of remaining or adjacent structures or facilities. Arrange shoring, bracing, and supports to prevent overloading of adjacent structures or facilities.
- D. Take precautions necessary to prevent damage to remaining work or to adjacent structures or facilities. Execute work using methods that will prevent interference with use of remaining and adjacent structures or facilities by the Owner.

**3.10 MATCHING AND PATCHING**

- A. Where existing construction is cut or otherwise disturbed to permit installation of new work, match and patch existing disturbed construction. Use methods and materials similar in appearance and equal in quality to areas or surfaces being repaired.

**3.11 REPAIR OF DAMAGE FROM SELECTIVE DEMOLITION**

- A. Contractor shall remove, replace, patch, and repair existing materials and surfaces cut, marred, or damaged during selective demolition. Such materials and surface

**DIVISION 02 – EXISTING CONDITIONS**  
**SECTION 02 41 13 – SELECTIVE SITE DEMOLITION**

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shall be repaired or restored to their condition prior to the damage. This repair or restoration Work shall be done at no additional cost to Ecology, and by methods and with materials so as not to void existing warranties.

1. Repair materials shall be identical to existing materials unless otherwise authorized by Ecology.
2. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
3. Use materials whose installed performance equals or surpasses that of existing materials.

**3.12 CLEANUP**

- A. Remove debris, rubbish, and materials resulting from cutting, demolition, or patching operations.
- B. Transport materials and legally dispose of off-site.
- C. See **Section 01 74 19 - Construction Waste Management and Disposal** for debris and waste removal and **Section 02 61 13 - Excavation and Handling of Contaminated Material** for disposal of impacted material.

**END OF SECTION 02 41 13**



**SECTION 02 61 13**

**EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This Section includes general earthwork consisting of excavation and handling of contaminated soil, onsite stockpiling, off-site disposal. It is intended as a general guide specification for a broad range of circumstances and work that may be encountered during construction.

**1.02 RELATED SECTIONS**

- A. Section 00 72 00 - General Conditions, 5.07 - Safety Precautions
- B. Section 00 73 19 - Health and Safety Requirements
- C. Section 01 35 29.13 - Health Safety and Emergency Response Procedures for Contaminated Sites
- D. Section 31 23 16 - Excavation

**1.03 SUMMARY OF CONTAMINATION**

- A. The soil to be removed from each Property in the Project Site is contaminated with elevated levels of arsenic (typically from inorganic arsenic compounds).
- B. The contamination source was primarily smokestack emissions from the Everett Smelter facility, which released arsenic during its operation between 1894 and 1912. Arsenic compounds airborne in the emissions settled onto properties in the vicinity of the Smelter property. Subsequent development of the Everett area disturbed and otherwise moved contaminated soil, causing uneven distributions of contamination throughout the Project Site.
- C. Excavation depths specified in **Appendix A01 - Contract Drawings** were developed based on sampling performed previously for each Property by Ecology.
- D. The Contractor is responsible for all testing needed to obtain approvals for disposal of contaminant materials. Arsenic concentrations observed in samples taken in each Property demonstrated substantial variation. The highest concentrations indicated for Properties in the Project Site ranged up to 274 parts per million (ppm), but the median concentration is about 54 ppm. Lead concentrations have been measured as high as 1413 mg/L. See **Appendix C01 – Pre-Construction Soil Sampling Results** for specific information and **Appendix A02** for general information about working with Arsenic in soil. Appendix C also contains TCLP test results.

## **DIVISION 02 – EXISTING CONDITIONS**

### **SECTION 02 61 13 – EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL**

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- E. Pre-construction soil sampling data is presented in **Appendix C01 – Pre-Construction Soil Sampling Results**.
- F. Ecology is not aware of other identified sources of contamination in the Project Site. Contractor shall promptly contact Ecology if evidence of additional contamination is encountered during Work.

#### **1.04 QUALIFICATIONS**

- A. Personnel engaged in hazardous materials work shall be Hazmat, Occupational Safety and Health Administration (OSHA), and Washington Industrial Safety and Health Act (WISHA) trained and certified. Conduct excavation and loading/unloading activities associated with known or potentially contaminated materials in accordance with Contractor's site-specific health and safety plan prepared in accordance with **Section 01 33 00 - Submittals Procedures** and Related Sections, noted above.
- B. Transportation of known or potentially contaminated materials shall be performed by properly licensed, insured, and registered waste haulers that are acceptable to Ecology and in accordance with applicable local, state, and federal regulations for transportation. Stockpile covers are required unless this requirement is removed by Ecology or Ecology's Representative. Transportation contractor(s) shall submit documentation that demonstrates it is properly licensed and in compliance with applicable Department of Transportation (DOT) regulations, as well as a copy of its contingency and spill control plans describing measures to be implemented in the event of spills or discharges during material handling and transporting.

#### **1.05 CONTRACTOR RESPONSIBILITY**

- A. Furnish all labor, equipment, supplies, and materials necessary to perform the loading/unloading, transportation, and disposal activities associated with the work under this Contract.

#### **1.06 SUBMITTALS**

- A. Five working days prior to start of excavation activities for the Work, Contractor shall submit to Ecology one (1) or more disposal facilities permitted to receive and dispose of the contaminated soil from this project.
  - 1. Ecology must approve of all disposal facilities used by Contractor in advance of use by the Contractor.
  - 2. Disposal facilities submitted by the Contractor shall be capable of receiving contaminated soil from the Project Site at the rate it is generated by the Work. No adjustments to Contract Time or Contract Sum will be considered by Ecology based on delays caused by limits to received volumes by disposal facilities.

## **DIVISION 02 – EXISTING CONDITIONS**

### **SECTION 02 61 13 – EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL**

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- B. Subsequent to commencing excavation, the Contractor may submit substitutions or additional options for disposal facilities.
  - 1. Substitutions shall be submitted in writing in accordance with **Section 01 25 00 - Substitution Procedures**.
  - 2. No adjustments to Contract Sum or Time will be permitted by Ecology for substitutions or additional options for disposal facilities.
- C. A Site-specific health and safety plan (HASP) shall be submitted to Ecology for review and approval, as specified in **Section 01 35 29.13 - Health, Safety, and Emergency Response Procedures for Contaminated Sites** of the Project Manual.

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

### **PART 3 - EXECUTION**

#### **3.01 GENERAL**

- A. Conduct all required transportation and disposal activities in accordance with the requirements of the Contract Documents and as otherwise directed by Ecology or Ecology's representative to complete the work under this Contract. Coordinate the work with Ecology or Ecology's representative to limit adverse effects of the work on the activities of other adjacent public and privately owned areas; and/or the public.
- B. Contractor operations will require work in a hazardous environment. Ensure adequate protection for all personnel, comply with all health and safety requirements of Contractor's HASP, and perform construction equipment decontamination and other environmental controls, as specified. Appropriate levels of personnel protection may be assumed for work associated with handling of contaminated soil and debris, and other activities with a potential for exposure to contaminated materials. Contractor is responsible for identifying the appropriate level of protection for its employees and subcontractors, and implementing the requirements of its HASP.
- C. Implement environmental protection measures, site access and traffic control, and utility protection, air emissions control, dust control, drainage and erosion control, spill prevention and pollution control, noise control, and all other controls needed to protect environmental quality during the work.
- D. The Contractor shall select an appropriate permitted or approved disposal facility for the disposal of contaminated soil and shall select the transporter that will haul contaminated materials to the selected facility, to be approved by Ecology or Ecology's Representative.

#### **3.02 ADDITIONAL EXCAVATION PROCEDURES AND REQUIREMENTS**

- A. This Section provides additional procedures and requirements specific to the excavation and handling of contaminated soil. General Specifications and

## **DIVISION 02 – EXISTING CONDITIONS**

### **SECTION 02 61 13 – EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL**

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requirements for excavation Work at the Project Site are contained in **Section 31 23 16 - Excavation**.

- B. Contractor shall conform to all applicable requirements for excavation and soil handling in Chapter 296-848 WAC and specified in **Section 01 35 29.13 - Health, Safety, and Emergency Response Procedures for Contaminated Sites**.
- C. Pursuant to Chapter 296-848 WAC, all excavation and contaminated soil handling and transportation shall be performed by the Contractor to minimize physical and chemical hazards to Contractor personnel, representatives of Ecology, Property Owner(s), Tenant(s) and the public. This shall include, but not be limited to:
  - 1. Contractor shall perform Work to prevent the airborne dust health risk. This shall include all air monitoring necessary in order to demonstrate to Ecology that the health risk has been completely controlled and prevented.
  - 2. Contractor shall not permit airborne dust to rise to a level where respirators are required.
  - 3. Contractor shall provide all appropriate health and safety training to Contractor personnel regarding the presence of soil contamination, including procedures for cleaning both themselves and their clothing and equipment during and after Work.
  - 4. The Contractor's HASP shall include reference to the presence of arsenic contamination in the soil in the Project Site, including procedures for minimizing exposure and first aid methods.
- D. Contractor shall maintain a clean Project Site and areas surrounding the Project Site in accordance with **Section 01 74 19 – Construction Waste Management and Disposal**. Erosion and sediment control measures shall be implemented by the Contractor in accordance with **Section 01 57 13 – Temporary Erosion and Sediment Control**.
- E. Until removed from the Project Site for safe and legal disposal, excavated contaminated soil shall be confined to fenced areas of Work. Fencing shall be secured to prevent public access to exposed contaminated soil.
- F. Until removed from the Project Site for safe and legal disposal, stockpiles of contaminated soil shall be covered when Work is not being performed to prevent erosion.
- G. Contractor shall include all costs for excavation and handling contaminated soil, including excavation by both mechanical means and by hand-tools, in the Contract Sum. Contract Sum shall also include all costs for protecting stockpiles and cleaning activities during loading and transportation of contaminated soil.

## **DIVISION 02 – EXISTING CONDITIONS**

### **SECTION 02 61 13 – EXCAVATION AND HANDLING OF CONTAMINATED MATERIAL**

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#### **3.03 DECONTAMINATION FACILITY AND CONTAMINATION EXCLUSION ZONE**

- A. The Contractor shall provide decontamination facilities for equipment and workers (including Ecology) based upon the requirements listed below:
1. Equipment shall be decontaminated to prevent tracking contaminated sediments from trucks or other equipment leaving the Site. The Contractor shall collect decontamination water and incidental runoff and dispose of them appropriately.
  2. The decontamination facility and the contamination exclusion zone shall conform to the Site-specific HASP specified in **Section 00 73 19 – Health and Safety Requirements**.
  3. Because of the small footprint of the Sites, the designated contamination zones are likely to change as work proceeds from one Site to another. Contractor shall use signs or flagging to designate areas as needed. The Contractor shall arrange the following work areas at the Site:
    - a. An Exclusion Zone to encompass areas where contaminated soil will be excavated, handled and stockpiled.
    - b. A Contamination Reduction Zone to provide a physical separation between the Exclusion Zone and Support Zones to enable decontamination of personnel and equipment prior to entering the Support Zone, from the Exclusion Zone.
    - c. A Support Zone for support facilities, clean equipment storage, and stockpiling clean materials. Workers may rest, eat, and drink in this area.

#### **3.04 TRANSPORTATION AND DISPOSAL OF CONTAMINATED SOIL**

- A. Contractor shall transport and dispose of contaminated soil in accordance with local, state, and federal laws and regulations having jurisdiction. Contractor shall cover all loads during transportation.
- B. As arsenic contamination in soils to be removed from the Project Site are expected to be less than those shown in Article 1.03, disposal facilities shall be a Subtitle D landfill permitted to accept waste soil.
- C. All costs for transportation and disposal at the receiving disposal facility, including trucking cost, fuel, fees, taxes, etc., shall be included in the Contract Sum.
- D. No adjustments to Contract Sum based on changes in costs for transportation and disposal at the receiving disposal facility will be approved by Ecology during Contract Time.

**END OF SECTION 02 61 13**

**SECTION 03 30 00**  
**CAST-IN-PLACE CONCRETE**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. This Section specifies cast-in-place concrete, including formwork, reinforcing, mix design, placement procedures, and finishes; which is for repair of these items damaged by the Work. This Section applies to the following:
  - 1. Exterior concrete slabs and driveways, as well as repairs to these features.
  - 2. Concrete foundations for fence posts.
  - 3. Sidewalk and sidewalk repairs.
  - 4. Concrete stairs.
- B. This Section shall also specify the repair of cracks in existing concrete slabs-on-grade to remain at the Project Site.

**1.02 RELATED SECTIONS**

- A. Section 01 35 43.10 - Green Construction Practices
- B. Section 32 16 00 - Curbs, Gutters, Sidewalks, and Driveways

**1.03 REFERENCES**

- A. City of Everett Design and Construction Standards and Specifications for Development

**1.04 SUBMITTALS**

- A. Concrete Mix Designs: Submit mix designs for each class of concrete. Indicate locations to be used. Include names and brands of materials, proportions, slump, strength, gradation of aggregates. Include laboratory test reports of trial strength and shrinkage tests.
- B. Product Data: Submit manufacturer's product data for proposed products, including epoxy adhesive, grout, and concrete admixtures.
- C. Shop Drawings:
  - 1. Submit drawings that indicate the locations of all joints in concrete, including construction joints, expansion joints, isolation joints, and contraction joints.

**DIVISION 03 – CONCRETE**  
**SECTION 03 30 00 – CAST-IN-PLACE CONCRETE**

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2. Submit drawings that indicate concrete placement schedule, method, sequence, location, and boundaries. Include each type and class of concrete, and quantity in cubic yards.
  3. Submit drawings that detail the type, size, and location of all pipes, conduit, embeds, blockouts, and recesses for all vertical and horizontal concrete construction.
- D. Submit for the Engineer's approval the name, address, and telephone number of the laboratory, agency, mill, or ready-mix plant which the Contractor intends to engage to design the concrete mixes.

**PART 2 - PRODUCTS**

**2.01 CITY OF EVERETT SPECIFICATIONS**

- A. All cast-in place concrete work shall be completed according to the specifications and drawings in the City of Everett's "Design and Construction Standards and Specifications for Development".

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION 03 30 00**

**SECTION 31 11 00**  
**CLEARING AND GRUBBING**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Clearing and grubbing shall be performed in all areas identified in the Project Site for excavation of contaminated soil. Clearing and grubbing shall include, but not be limited to, the following.
  - 1. Removal of existing surfaces, including lawn, gravel, and landscape areas specified in **Appendix A01 - Contract Drawings**.
  - 2. Removing trees, shrubs, and vegetation, unless designated to Remain In Place in accordance with **Appendix A01 - Contract Drawings**.
    - a. Removal shall include stumps and root masses, as appropriate for the depths of excavation specified for each Property.
  - 3. Removal of all landscaping features, areas of brick and paving stone paving, and other site features as indicated in **Appendix A01 - Contract Drawings**.
- B. Contractor shall verify all limits of clearing, grubbing, tree removal, landscaping, and site improvement removal with Ecology's Representative prior to commencing Work.
- C. Prior to commencing clearing and grubbing activities on each Property, Contractor shall verify all surveyed area elevation control points and elevation control marks are established for the Property as specified in **Section 01 71 23 - Field Engineering**.

**1.02 RELATED SECTIONS**

- A. Section 01 35 43.10 - Green Construction Practices
- B. Section 01 56 39 - Temporary Tree and Plant Protection
- C. Section 01 71 23 - Field Engineering
- D. Section 01 74 19 - Construction Waste Management and Disposal
- E. Section 02 41 13 - Selective Site Demolition
- F. Section 02 61 13 - Excavation and Handling of Contaminated Material
- G. Section 31 23 16 - Excavation



**DIVISION 31 – EARTHWORK**  
**SECTION 31 11 00 – CLEARING AND GRUBBING**

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**1.03 QUALITY ASSURANCE**

- A. Clearing and grading of the Site should be planned properly. It is important to clear only the areas needed; thus, keeping exposed areas to a minimum. Clearing should be phased so that only those areas that are actively being worked are uncovered. Clearing limits should be flagged and reviewed by the appropriate city official in the lot or area prior to the initiation of clearing.
1. Debris resulting from the clearing and grubbing shall be disposed of by the Contractor in accordance with the specifications and Contract Documents.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 CLEARING AND GRUBBING PROCEDURE**

- A. Locate and clearly identify all existing utilities in accordance with **Appendix A01 - Contract Drawings** and **Section 02 22 00 - Existing Conditions Assessments**, including all underground utilities on the Project Site and adjacent City rights-of-way.
1. Contractor shall contact the Snohomish County PUD a minimum of two (2) full business days in advance of Work on any Property where an aboveground utility pole or buried Snohomish County PUD utility line is located.
  2. Contractor shall contact the gas company (Puget Sound Energy) and schedule an inspector to be onsite during any clearing activities in the vicinity of natural gas lines.
  3. Contractor shall verify the presence and approximate alignments of private utilities based upon information provided in the Project Manual, information provided by the Ecology Representative, and visible site features (i.e., conduits, sprinkler heads, control boxes, etc.)
    - a. Contractor shall verify and document existing functionality of private utilities with Ecology Representative, prior to construction.
    - b. Contractor shall document private utilities both prior to and during Work in order to restore these utilities to existing conditions during Work.
  4. Repair and restoration to functional service of all utilities, both public and private, made inoperable by the Work or during the Work shall be the responsibility of the Contractor at no additional cost to Ecology.
    - a. Contractor shall verify functionality of private utilities with an Ecology Representative.
- B. Verify buildings, site features, improvements, trees, and vegetation that are specified to Remain In Place are protected and prominently marked.

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**SECTION 31 11 00 – CLEARING AND GRUBBING**

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- C. Completely remove all vegetation and all other organic debris within the clearing limits as indicated.
  - 1. Perform removal operations in a manner to protect property.
  - 2. Grub deep enough to remove all stumps, large roots, buried logs, and other vegetative material.
- D. Only when such roots are associated with trees and stumps removed during clearing activities, Contractor shall remove roots within the prescribed excavation depth.
  - 1. Roots larger than two (2) inches in diameter associated with trees indicated to Remain In Place shall be protected by Contractor during clearing activities.
  - 2. Protect existing vegetation and other landscaping specified to Remain In Place. See **Section 01 56 39 - Temporary Tree and Plant Protection**.
- E. Contractor shall identify all utilities encountered during clearing, excavation, and all other Work performed for the Project.
  - 1. Document utility conditions, layout, and configuration, identifying any damage experienced prior to and/or during the Work
  - 2. Identification should include the materials and the location and alignment of those utilities.
  - 3. The Contractor shall notify the Ecology Representative immediately if underground utilities not shown in Contract Documents are encountered.
- F. Contractor shall be prepared to Replace In Kind all utilities, or portions thereof, that are damaged or destroyed during the Work, unless otherwise specified herein or directed in writing by Ecology.
- G. Contractor shall employ all appropriate measures to control dust both within the Project Site and the surrounding properties and areas.
  - 1. Sprinkle exposed subsurfaces as necessary to limit dust to lowest practicable level. Do not use water to extent causing flooding, contaminated runoff or icing.

**3.02 STUMP REMOVAL PROCEDURE**

- A. Completely remove all stumps and associated roots within the clearing limits as indicated. Perform removal operations in a manner to protect property.
  - 1. Stump and root removal shall be performed in such a fashion as to not disturb adjacent structures and pavements.
  - 2. Where stumps or associated root systems are immediately close to or beneath existing structures, buildings, and site features specified to Remain In Place, Contractor shall remove as much of the stump and root system as possible without damaging those structures, buildings, and site features.

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**SECTION 31 11 00 – CLEARING AND GRUBBING**

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3. Structures, buildings, and site features specified to Remain In Place that are damaged by Contractor during removal of stumps or roots shall be repaired or replaced by Contractor at no additional cost to Ecology.
- B. Excavate and remove all stumps to a minimum depth of two (2) feet, except stumps specified to Remain In Place.
- C. Contractor shall grind down or otherwise remove exposed roots larger than two (2) inches in diameter to prevent regrowth.
  1. Roots larger than two (2) inches in diameter associated with trees indicated to Remain In Place shall be protected by Contractor during clearing activities.
- D. Backfill holes created during stump removal with common fill to the specified excavation depth then proceed with specified restoration.

**3.03 REMOVAL OF SITE FEATURES**

- A. Removal of structures, landscaping, brick and stone paver pavements and other site improvements and features shall be performed in accordance with **Section 02 41 13 - Selective Site Demolition**.

**3.04 DISPOSAL OF MATERIALS**

- A. Disposal of materials shall be in accordance with **Section 01 74 19 - Construction Waste Management and Disposal** and **Section 02 61 13 - Excavation and Handling of Contaminated Material**.
- B. Material from removal of vegetation above ground level shall be disposed of by the Contractor via green waste composting or
- C. in a manner consistent with government regulations having jurisdiction.
- D. Materials from grubbing that have adhered or intermixed soil shall be disposed of with contaminated soil per **Section 02 61 13 - Excavation and Handling of Contaminated Material**.
- E. In no case shall refuse material be left on the Project Site, placed onto abutting private properties, or buried in pits, embankments or trenches on the Project Site. While material is on site, maintain material in a neat and tidy manner.
- F. Refuse and debris shall not be deposited in a stream or body of water or any public right-of-way. Refuse and debris shall not be deposited upon private property except by written consent of both Ecology and property owner.
- G. Onsite burning and/or burying is not allowed.
- H. Contractor shall maintain hauling routes clean and free of debris resulting from Work at no additional cost to Ecology.

**END OF SECTION 31 11 00**

**SECTION 31 23 16  
EXCAVATION**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all materials, equipment, and labor necessary for the following:
  - 1. Removal of soil to the Property-specific Decision Unit depths and offsite disposal.
  - 2. Removal and disposal of imported backfill allowed through moisture or other conditions to become unsuitable.
- B. The Work described in this Section shall incorporate and conform to the requirements in **Section 02 61 13 – Excavation and Handling of Contaminated Material**.

**1.02 RELATED SECTIONS**

- A. Section 01 35 43.10 - Green Construction Practices
- B. Section 01 50 00 - Temporary Facilities and Controls
- C. Section 01 56 39 - Temporary Tree and Plant Protection
- D. Section 01 57-13 - Temporary Erosion and Sediment Control
- E. Section 01 71 23 - Field Engineering
- F. Section 02 41 13 - Selective Site Demolition
- G. Section 02 61 13 - Excavation and Handling of Contaminated Material
- H. Section 31 11 00 - Clearing and grubbing

**1.03 SUBMITTALS**

- A. Excavation Work Plan shall include, but not be limited to the following:
  - 1. General means, methods, and equipment to complete demolition, excavation, disposal, fill, and restoration work.
  - 2. Submit Excavation Work Plan as part of Temporary Controls Work Plan in **Section 01 50 00 – Temporary Facilities and Controls**.

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**SECTION 31 23 16 – EXCAVATION**

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**1.04 QUANTITY MEASUREMENT AND CONTRACT SUM**

- A. Contractor shall include in the Contract Sum the cost of achieving all excavated grades during Work at the Project Site, as specified in **Section 01 71 23 - Field Engineering**.
- B. All excavation to specified depths, export, and disposal, as indicated in the Contract Documents, shall be included in the Contract Sum.
  - 1. If the Contractors sequencing of the Work requires stockpiling and double-handling of materials, this shall be accomplished within the Contract Sum amount at no additional cost to Ecology.
- C. The Contractor shall be responsible for all unauthorized excavation of additional soil and/or placement of additional fill. An adjustment to either Contract Sum or Contract Time based on all such unauthorized Work will not be approved.
- D. If Contractor's means and methods of Work result in additional excavation and/or fill at a Property that was not to be removed/placed (e.g., removal of a portion of driveway designated to Remain In Place, excavation beyond or deeper than specified, etc.), Contractor shall complete work according to specified methods for the applicable Decision Unit, prior to restoration of the area, and at no additional cost to Ecology.

**1.05 REFERENCES**

- A. Contractor shall comply with applicable provisions of the following standard specifications and documents:
  - 1. City of Everett Construction Standards
  - 2. Department of Ecology 2019 Stormwater Management Manual for Western Washington

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Stockpile materials on site within clearing limits and at locations approved by Ecology. The Contractor shall be responsible for protecting the stockpiled material.
- B. Contractor shall prevent unprotected physical contact between contaminated soil and uncontaminated materials, equipment, and surfaces per **Section 02 61 13 - Excavation and Handling of Contaminated Soils**. This shall include imported fill materials.
- C. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- D. When removing stockpile, leave area in a clean and neat condition. Grade site surface to prevent free-standing surface water.

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**SECTION 31 23 16 – EXCAVATION**

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- E. Soil integrity will be influenced by the weather conditions and the Contractor's handling and protection of the material as it is removed and placed. It is the sole responsibility of Contractor to protect material from the elements. Material that is deemed unsuitable because of lack of protection will be rejected by Ecology. Contractor will be responsible for removing such material and replacing it with acceptable material at no additional cost to Ecology.
- F. Maintain toe of stockpiled material at least six (6) feet from edges of trenches and excavations. Pile so surface water is prevented from flowing into excavations. Provide free access to fire hydrants, water valves, meters; private driveways; and leave clearance to enable the free flow of storm water in gutters, conduits, and natural water courses.

**1.07 DIMENSIONS AND LAYOUTS**

- A. The Contractor shall be responsible for furnishing, setting, and marking all line and location stakes, including offsets and general construction staking. When Work requiring control is being performed, all necessary related equipment, supplies, and instruments shall be on site and in use by Contractor. A qualified layout engineer, surveyor, or technical specialist must be assigned to the Contractor's crew for this Work. This equipment and personnel must be available, at no additional cost to Ecology, for the purpose of verifying layout, conformance of grading, and certifying the accuracy of Work on the Project Site.
- B. The Contractor shall be responsible for preserving all benchmarks and stakes and the replacement of any that are displaced or missing.
- C. The Contractor shall be responsible for review of all utility purveyor, and City, County or State records relative to the existing underground utilities. The Contractor shall be responsible for avoiding damage to these facilities and shall repair any damage resulting from Contractor's work to any located and marked utilities at no additional cost to Ecology.
- D. Contractor shall identify all utilities encountered during clearing, excavation, and all other Work performed for the Project.
  - 1. Document utility conditions, layout, and configuration, identifying any damage experienced prior to and/or during the Work.
  - 2. Identification should include the materials and the location and alignment of those utilities.
  - 3. The Contractor shall notify the Ecology Representative immediately if underground utilities not shown in Project Manual, or not located by the utility locate service, are encountered.

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**SECTION 31 23 16 – EXCAVATION**

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**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 CONTRACTOR PREPARATION AND VERIFICATION OF CONDITIONS**

- A. Before commencing excavation, Contractor shall:
1. Verify survey benchmark and intended elevations for the Work are as indicated.
  2. Verify erosion and sediment control measures are in place and operating properly.
  3. Verify buildings, site features, improvements, trees and vegetation that are specified as Remain In Place or Remove and Reinstall are protected and prominently marked with the required action.
  4. Verify required lines, elevation survey locations, levels, contours and datum have been identified and all conflicts have been resolved with Ecology.
  5. Verify all required elevation survey points can be collected to backfill to restore to original grades as specified in the Project Manual during backfilling before commencing excavation.

**3.02 GENERAL EXCAVATION PROCEDURES**

- A. Excavation shall be performed to the depths indicated for each Decision Unit as indicated in **Appendix A01 - Contract Drawings**, unless otherwise restricted by the preservation of buildings, structures, improvements, and vegetation designated as Remain in Place.
- B. Excavation shall be performed through the use of some combination of mechanical excavation methods and hand-tool methods. The Contractor shall make every effort to coordinate excavation activities such that excavation spoils are handled as little as possible.
1. Remain In Place features shall be protected from damage during excavation per **Section 02 41 13 - Selective Site Demolition**. Excavation methods with hand-tools shall be used in vicinity of vegetation to prevent damage to shallow root masses.
- C. Excavations shall be sloped away from the base of all building and structure foundations, and away from the edge of all sidewalks, concrete slabs-on-grade, concrete or asphalt driveways, the toe of rock slopes and rockeries to be left in place, and all other structures and site features that may otherwise be disturbed by excavation activities as shown on **Appendix A01 - Contract Drawings**.
1. Contractor shall protect and monitor all excavation slopes for erosion or instability, and correct deficiencies promptly at no additional cost to Ecology.

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- D. Excavation shall be performed in such a fashion as to avoid damage to buried utilities, including the use of hand-tools when over or in the close vicinity of buried utilities.
  - 1. Where necessary to expose existing utilities, Contractor shall expose utilities without damage, removing as much soil from around those utility lines as possible.
  - 2. Excavation shall not be permitted below buried utility pipes and support bedding for utilities shall not be removed.
  - 3. Damage to utility lines shall be repaired promptly and service restored, at no additional cost to Ecology.
- E. Excavation deeper than six (6) inches shall not be permitted within two (2) feet of any above-ground utility pole or anchor foundation for an above-ground utility pole. Beyond two (2) feet, the excavation shall be sloped at a minimum of 1 horizontal to 1 vertical (1H:1V) away from pole base or anchor.
- F. Contractor shall only remove roots larger than the diameter indicated in **Section 31 11 00 - Clearing and Grubbing, Article 3.01.D**, if such roots are associated with trees and stumps removed during excavation.
  - 1. Roots larger than indicated in **Section 01 56 39- Temporary Tree and Plant Protection, Article 3.01**, associated with trees and bushes specified to Remain In Place shall be protected by Contractor during excavation. Also note the requirements in **Appendix A - Contract Drawings**.
- G. Where directed by the Engineer, unsuitable material in the subgrade shall be removed to a specific depth and backfilled with select material such as Common Fill conforming to **Section 31 23 23 - Fill and the Contract Drawings**. Before any backfill is placed, the contractor shall bring the subgrade to the required line, grade based on the specifications and Contract Drawings. The contractor shall maintain the subgrade in the required condition until the backfill is placed.
- H. Contractor shall identify all utilities damaged or destroyed during clearing, excavation and all other Work performed for the Project. Identification shall include the materials and the alignment of those utilities. Contractor shall be prepared to replace, repair, and restore to service all utilities damaged or destroyed during Work, unless otherwise specified herein or directed in writing by Ecology.
- I. Excavated soil shall be stockpiled and removed from each Property for legal disposal offsite. Stockpiles shall be covered when not in use to prevent erosion by wind or water per SWMMWW BMP C123.
- J. Contractor shall employ all appropriate measures to control dust both within the Project Site and the surrounding properties and areas in accordance with the Project Manual.



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1. Moisten excavated material and exposed subsurfaces as necessary to limit dust to lowest practicable level. Do not use water to extent causing flooding, contaminated runoff, or icing.

**3.03 SUBGRADE PREPARATION**

- A. The Contractor shall reduce disturbance to exposed soil by the following methods:
  1. Limit construction traffic over unprotected soil.
  2. Provide gravel “working mats”.
  3. Sloping excavated surfaces to promote runoff.
  4. Sealing exposed surfaces by rolling with a smooth drum compactor or rubber-tired roller at the end of each working day and removing wet surface soil prior to filling each day.
- B. Contractor shall repair and provide the additional excavation, disposal, and import of replacement material at no additional cost to Ecology.
- C. Follow recommendations specified in **Section 31 23 23 - Fill, Article 3.02**.

**3.04 SOIL PROTECTION AND WET WEATHER CONDITIONS**

- A. On-site subgrade soil and soil imported to the site with a fines content higher than 5 percent (based on the minus 3/4-inch fraction), shall be considered moisture-sensitive. Placement and compaction of moisture-sensitive fill, or import fill over moisture-sensitive subgrades, during periods of wet weather should be avoided by the Contractor. Fill that becomes too wet to be compacted as specified shall be removed and replaced at no additional cost to Ecology.
- B. If the Contractor elects to perform earthwork or place/compact fill in wet weather or under wet conditions when control of soil moisture content is not possible, work should be observed by a field representative of Ecology to verify that all unsuitable materials are removed, specified compaction is achieved, and site drainage are achieved. In addition, do the following:
  1. Cover all stockpiles prior to periods of wet weather to prevent imported fill from becoming too wet to properly place and compact.
  2. Perform earthwork in small areas to minimize exposure to wet weather. At times when heavy rain is likely to be encountered, the work shall be sequenced so that only as much area as can be covered and protected are exposed.
    - a. Protect exposed soils from wet conditions by covering or otherwise stabilizing the soil.
  3. Minimize disturbance by selecting the appropriate size and type of construction equipment. Under some circumstances, it may be necessary to perform

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earthwork with a backhoe or hand-tools to minimize subgrade disturbance caused by equipment traffic.

4. Grade ground surface within the construction area to promote runoff of surface water and to prevent the ponding of water.
5. Seal ground surface within the construction area with a smooth drum vibratory roller, or equivalent. Soils which become too wet for compaction should be removed and replaced at no additional cost to Ecology.
6. Cover the ground surface with plastic sheeting to protect from extended wet weather if needed.
7. Remove loose/soft, wet unsuitable surface soil prior to backfilling.
8. Locate erosion control measures as necessary to control surface water, including during storm events, and prevent erosion in accordance with SWPPP.
9. Maintain appropriate drainage in areas of Project Site where fill is being placed and compacted. All excavations shall be free of standing water, saturated soil, and frozen ground before placing and compacting fill. Suitable subgrade soil conditions shall be confirmed by Ecology representative prior to backfilling.

**3.05 EXCAVATION PROCEDURES NEAR TREES AND PLANTS TO REMAIN**

- A. Excavation of soil will be limited by the roots of the trees or plants to Remain. Determine tree protection and critical root zones (CRZ) as indicated in **Section 01 56 39 - Temporary Tree and Plant Protection**.
1. For Trees to Remain: Use means that avoid killing mature trees or being blown over in high winds during the Work.
    - a. Within the Outer CRZ, excavate carefully to avoid damaging roots, particularly roots larger than two (2) inches in diameter.
      - 1) Use hand tools (e.g., shovels, air spades, etc.) to excavate the Outer CRZ.
      - 2) If a root greater than two (2) inches in diameter is encountered, do not excavate closer to the base of the tree from that direction. Excavation may be attempted closer to the tree from a different direction.
    - b. Within the Inner CRZ, remove sod or other surfacing materials only if it is possible to do so without exposing or damaging roots. Use hand tools to avoid damage to roots.
  2. For Plants to Remain: Excavation of soil will be limited by the roots of the plants to Remain In Place. For trees, shrubs, and plants that do not have a single trunk or that have a trunk diameter smaller than six (6) inches limit excavation to the drip line to minimize the damage to roots and help preserve the life of the plant.

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**3.06 EXCAVATIONS OF EXISTING SLOPES**

- A. Excavation into existing slopes steeper than 4H:1V, if present, shall have excavated subgrade terraced with horizontal benches at least four (4) feet wide to maintain stability after backfilling. Bench in a manner that achieves average excavation depth specified.
- B. The horizontal surface shall be sloped outward at 2 percent.
- C. Vertical cuts for terracing shall be no higher than one and one half (1.5) feet.

**3.07 SITE TOLERANCES**

- A. Finish excavation grades shall match contours and elevations established by pre-excavation surveys performed by the Contractor minus the required excavation depth (e.g., 12 inches) to within one (1) inch or less. Additionally, on a property by property basis, if after excavation has been completed, more than 75 percent of the elevation control point data indicate elevations higher than the required elevation (i.e., pre-construction elevation minus excavation depth), Contractor will excavate additional soil to lower the overall excavated surface elevations to meet these requirements.

**3.08 CLEANING**

- A. Dispose of waste, surplus, and unsuitable materials according to laws, regulations, and ordinances offsite at no additional cost to Ecology.
- B. Contractor shall maintain hauling routes clean and free of debris resulting from Work of this Section at no additional cost to Ecology.
- C. Contractor shall minimize contact between contaminated soil and uncontaminated areas, materials, and equipment. Areas of contact shall be promptly cleaned and all contaminated soil removed.

**3.09 EXCAVATION BASE ENVIRONMENTAL SAMPLES**

- A. Once excavation of an individual Property decision unit is complete, Contractor shall notify Ecology and allow Ecology to sample and test the soil at the excavation limit prior to proceeding with installation of geotextile and backfill.
  - 1. Ecology shall notify Contractor of sample results.
    - a. If results are acceptable, Contractor shall proceed in accordance with the Contract Documents.
    - b. If results indicate further excavation is required, Contractor shall proceed as directed by Ecology through a Work Change Directive.
  - 2. Contractor shall allow up to forty-eight (48) hours for Ecology to sample and test at no additional cost to Ecology or impact to Contract Time.

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**END OF SECTION 31 23 16**

**SECTION 31 23 23  
FILL**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

- A. The Work consists of furnishing all transportation, labor, materials, equipment, and incidentals necessary to place backfill material, as shown in the Contract Drawings and described in these Specifications.
- B. Provide all materials, equipment, and labor necessary for the following:
  - 1. Repair and/or installation of public and private utilities removed, destroyed, or damaged during Work.
  - 2. Placement of geotextile fabric overexposed soil prior to placement of imported backfill.
  - 3. Placement and compaction of imported backfill (“Common Fill”) and surfacing materials such as Topsoil, gravel, or replacement landscape bed materials at each Property to restore the existing, pre-construction elevations and topography surveyed by Contractor.
  - 4. Placement of materials to return surface to pre-construction elevations next to permanent site features previously surveyed by Contractor.
  - 5. Placement and compaction of imported backfill on slopes; behind walls and in areas to receive concrete slabs, driveways, or sidewalks; and areas to receive aggregate surfacing.
  - 6. Removal and disposal of imported backfill allowed through moisture or other conditions to become unsuitable.
  - 7. Placement of topsoil and finish grading for areas of sod, tree, shrub, and vegetation planting and landscape restoration.
  - 8. Placement of replacement landscaped area surface materials.

**1.02 RELATED SECTIONS**

- A. Section 01 45 16.13 - Contractor Quality Control
- B. Section 01 71 23 - Field Engineering
- C. Section 31 23 16 - Excavation
- D. Section 32 14 00 - Unit Paving

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- E. Section 32 15 00 - Aggregate Surfacing
- F. Section 32 92 23 - Sodding

**1.03 SUBMITTALS**

- A. Common Fill Samples: Submit a sample of import Common Fill weighing at least fifty (50) pounds a minimum of ten (10) working days prior to the use of material, unless otherwise indicated. Additional samples are required for each different source having different gradations, as determined by Engineer. Common Fill material shall be sampled and tested a minimum of once (1) per source Common Fill test results indicated in Article 2.01 of this Section shall be submitted prior to backfilling, demonstrating that materials meet the Specifications in the Project Manual. Coordinate sampling and testing with Ecology Representative.
- B. Topsoil and Compost Samples: All Topsoil (mixture of sand and Compost) and Compost samples will be collected as split samples by the Contractor and Ecology. Additional samples are required for each different source. Sand from a different source, but having the same gradation, as determined by Engineer, may not require a different sample. Samples shall be submitted separately for each material and collected/tested for at the frequency listed below.
  - 1. Sample results for Topsoil and compost shall be submitted to Ecology separately.
  - 2. Topsoil and compost material shall be sampled and tested once (1) per five hundred (500) CY per source. Testing shall be as indicated for import soil and topsoil in Article 2.01.
  - 3. If multiple material sources are proposed/used, then one sample shall be submitted for each source and for every 500 CY of material used. Test results for import soil and topsoil indicated in Article 2.01 of this Section shall be submitted prior to delivery to Site, unless noted otherwise.
- C. Ecology may request additional testing. Contractor shall be reimbursed for additional testing requested by Ecology, if test results indicate compliance with the Specifications. If tests indicate materials do not meet specified requirements, the Contractor shall change materials and retest at no additional cost to Ecology.
  - 1. A complete set of test reports shall be submitted for each source material.
  - 2. Information confirming that import soil is not contaminated per Article 2.01.
  - 3. Sieve analysis for Common Fill and the sand part of the Topsoil.
  - 4. Plasticity Index for Common Fill.
  - 5. Various tests noted for compost part of Topsoil.
  - 6. Recommendations for compost or Topsoil amendments by Contractor.
  - 7. Sod supplier certification of Topsoil suitability.

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**SECTION 31 23 23 – FILL**

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8. Separation Geotextile product literature, manufacturer’s storage, handling, and installation instructions.
  9. Other indicated tests.
- D. Certified waybills, delivery tickets and bills of lading: In accordance with provisions of this Section within one (1) week of each delivery.
1. Provide certified waybills, delivery tickets, and bills of lading paperwork to Ecology on a weekly basis.
  2. Documentation shall contain the following information, complete and accurately recorded:
    - a) Date and the time the material entered or departed the Project Site.
    - b) Driver identification.
    - c) Vehicle identification, configuration, tare weight.
    - d) Material classification.
    - e) Material weight in tons or volume in cubic yards.

**1.04 QUANTITY MEASUREMENT AND CONTRACT SUM**

- A. Contractor shall include in the Contract Sum the cost of achieving all restored final grades and topography present for each property.
- B. All imported soil, including placement and compaction required to achieve the final grades and completed facilities as specified in the Project Manual, shall be included in the Contract Sum.
  1. If the Contractor’s sequencing of the Work requires stockpiling and double-handling of materials, this shall be accomplished within the Contract Sum amount at no additional cost to Ecology.
- C. The Contractor shall be responsible for all unauthorized excavation of additional soil and/or placement of additional fill. An adjustment to either Contract Sum or Contract Time based on all such unauthorized Work shall not be permitted.

**1.05 REFERENCES**

- A. Contractor shall comply with applicable provisions of the following standard specifications and documents:
  1. City of Everett Construction Standards.
  2. ASTM C-136 Standard Method for Sieve Analysis of Fine and Coarse Aggregate.
  3. ASTM D-422 Method for Particle Size Analysis of Soils

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4. ASTM D-1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
5. ASTM D-2922 Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods
6. ASTM D-4318 Liquid Limit, Plastic Limit and Plasticity Index of Soils
7. AASHTO T176 Plastic Fines in Graded Aggregates and Soils by use of the Sand Equivalent Test.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Stockpile materials on site within clearing limits and at locations approved by Ecology. The Contractor shall be responsible for protecting the stockpiled material.
- B. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- C. When removing stockpile, leave area in a clean and neat condition. Grade site surface to prevent free-standing surface water.
- D. Stockpiles shall be constructed upon the prepared sites in accordance with stakes set by the Engineer. The piles when completed shall be neat and regular in shape. The stockpile height shall be limited to a maximum of twenty-four (24) feet. Stockpiles in excess of two hundred (200) cubic yards shall be built up in layers not more than four (4) feet in depth. Contractor shall provide survey stakes for stockpiles.
- E. Maintain toe of stockpiled material at least six (6) feet from edges of trenches and excavations. Pile so surface water is prevented from flowing into excavations. Provide free access to fire hydrants, water valves, meters; private driveways; and leave clearance to enable the free flow of storm water in gutters, conduits, and natural water courses.
- F. Contractor shall protect geotextile fabric, and all other materials sensitive to deterioration or destruction, from exposure to sun or weather.

**1.07 WET WEATHER CONDITIONS**

- A. Soil integrity will be influenced by the weather conditions and the Contractor's handling and protection of the material as it is removed and placed. It is the sole responsibility of the Contractor to protect material from the elements. Material that is deemed unsuitable due to lack of protection shall be rejected by Ecology. The Contractor shall be responsible for removing such material and replacing with acceptable material or aerated and allowed to dry at no additional cost to Ecology. Complete wet weather Work in accordance with **Article 3.04 of Section 31 23 16 - Excavation.**



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- B. Maintain appropriate drainage in areas of Project Site where placement and compaction of fill is being performed.
- C. Exposed slopes shall be sloped away from existing buildings and other structures.

**1.08 DIMENSIONS AND LAYOUTS**

- A. The Contractor shall be responsible for furnishing, setting, and marking all line and location stakes, including offsets and general construction staking. When Work requiring control is being performed, all necessary related equipment, supplies and instruments shall be on site and in use by Contractor. A qualified layout engineer, surveyor, or technical specialist must be assigned to the Contractor's crew for this Work. This equipment and personnel must be available, at no additional cost to Ecology, for the purpose of verifying layout, conformance of grading, and certifying the accuracy of Work on the Project Site.
- B. The Contractor shall be responsible for preserving all benchmarks and stakes and the replacement of any that are displaced or missing.
- C. The Contractor shall be responsible for review of all utility purveyor, and city, county, or state records relative to the existing underground utilities. The Contractor shall be responsible for avoiding damage to these facilities and shall restore all utilities at Contractor's own expense.

**PART 2 - PRODUCTS**

**2.01 MATERIALS**

- A. All import soil shall be tested for the substances listed below to demonstrate import soils have no concentrations of any contaminating and/or hazardous substance exceeding MTCA Method B standards. The material supplier must provide documentation that the source area land use, operational history, and chemical characterization is sufficient to demonstrate the site is free from contamination, as determined by Ecology or Ecology's representative. The Contractor shall allow five (5) working days for review by Ecology or Ecology's Representative. If the submitted documentation or test results are unsatisfactory, additional testing will be required.
  - 1. Substances include, but are not limited to:
    - a. SVOCs (per EPA 8270C)
    - b. VOCs (per 8260B)
    - c. PCBs (per EPA 8082)
    - d. Chlorinated Pesticides (per EPA 8081A)
    - e. Metals per EPA 6020 (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, zinc)

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- f. Cyanide (per EPA 9012)
  - g. Mercury (per EPA 7471)
  - h. Total Petroleum Hydrocarbons (per NWTPH-Dx)
- B. Common Fill: A fill placed for grade restoration of aggregate surfaced, landscaped, and/or vegetated areas to achieve the required Topsoil restored grades in accordance with the Contract Documents. Contractor shall verify all elevation locations surveyed for each Property prior to placement of Topsoil.
- 1. Common Fill shall meet the following requirements.
    - a. Common Fill shall be granular sand and gravel material, either naturally occurring or processed. It shall be essentially free from various types of wood waste or other extraneous, deleterious, or objectionable materials. It shall have such characteristics of size and shape that it will compact readily.
    - b. Common Fill shall meet following gradation requirements tested in accordance with ASTM D-422:

<u>Sieve Size</u>	<u>Percent Passing</u>
1-inch	90-100%
No. 4	50-80%
No. 40	0-30%
No. 200	0-7%
    - c. Common Fill shall meet the following plasticity requirements tested per ASTM D-4318: Plasticity Index (PI) <15 and Liquid Limit <40.
- C. Topsoil: Topsoil material shall be a uniform mixture by volume of sixty (60) percent silty sand/sandy silt and forty (40) percent compost mulch of a quality that can support the growth of sod and restored trees, shrubs, and vegetation.
- 1. Topsoil shall meet the following requirements:
    - a. Organic amendments include weed- and fungus-free compost and manure, aged sawdust and wood shavings, ground bark and peat moss. These organic amendments must be mixed deeply and uniformly prior to the installation of sod. Organic material in topsoil shall have the following physical characteristic:
      - 1) Shall be screened using a sieve no finer than 7/16 inch and no coarser than 3/4 inch.
    - b. Topsoil shall be tested to document a pH from 6.0 to 7.5.
    - c. The sand component shall meet the following gradation requirements tested in accordance with ASTM-422:

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<u>Sieve Size</u>	<u>Percent Passing</u>
No. 4	95-100%
No.10	75-90%
No. 40	20-40%
No. 100	4-10%
No. 200	4-9%

- d. Compost mulch shall be tested to document conformance to the following minimum requirements:
  - 1) Compost shall score a number seven (7) or above on the Solvita Compost Maturity Test or a number of four (4) or below for the Test Method for the Examination of Composting and Compost (TMECC) Maturity Test.
  - 2) Shall have a pH from 6.0 to 7.5.
  - 3) Shall have a maximum electrical conductivity of 4.0 mmhos/cm.
  - 4) Shall have a maximum carbon to nitrogen ratio of 18:1.
  - 5) Shall be certified by the Process to Further Reduce Pathogens (PFRP) guideline for hot composting as established by the United States Environmental Protection Agency (EPA), (as defined in the Code of Federal Regulations Title 40, Part 503, Appendix B, Section B).
- 2. Contractor shall obtain written verification from suppliers of sod for the Project that the Topsoil material is suited for the sod to be installed.
  - a. If Topsoil does not meet the requirements of the sod supplier, Contractor may add either organic or inorganic amendments to the soil to bring it into conformance with supplier requirements. Amendment of unsuitable Topsoil by Contractor shall be done at no additional cost to Ecology.
- D. Separation Geotextile Fabric: Geotextile shall be a nonwoven, stable fiber, polypropylene, needle-punched product meeting the following requirements:
  - 1. Resistant to UV degradation and to biological and chemical environments normally encountered in soils.
  - 2. Properties shall conform to the Minimum Average Roll Values (MARV) in the table below.

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Property	ASTM Test Method	Unit	Property Requirement
Physical			
Mass/Unit Area	D-5261	oz / yd <sup>2</sup>	3.5
Mechanical			
Tensile Strength (Grab)	D-4632	Lbs.	50
Hydraulic			
Apparent Opening Size	D-4751	Std Sieve	No. 40 Max
Permittivity	D-4491	sec <sup>-1</sup>	2.0
Endurance			
UV Resistance (500 hrs.)	D-4355	% retained	70

3. Acceptable products:
  - a. PermeaTex. Distributor is Northwest Linings & Geotextile Products, Inc. Kent, WA 98032
  - b. GEOTEX® 351. Manufacturer is Propex Operating Company, LLC. Chattanooga, TN 37422
  - c. MIRAFI 135N. Manufacturer is TenCate Geosynthetics, 365 South Holland Drive, Pendergrass, Georgia 30567
  - d. Or Approved Equal.
  
- E. Tracer Tape: Utility pipe tracer tape shall be detectable below ground surface, color coded as indicated below, with utility name printed on tape. Conductive warning tape is required over all sewer, drainage, and domestic water pipe. Tape shall be manufacturer’s standard permanent, bright-colored, continuous printed plastic tape, aluminum backed, intended for direct-burial service. Tape shall be not less than six (6) inches wide by four (4) millimeters thick.
  1. Domestic Water: Color: Blue; Text: Caution Domestic Water
  2. Sewer/Drainage: Color: Green; Text: Caution Sanitary Sewer
  3. Tracer tape is not required for irrigation pipe unless pipe also services the domestic water for the Property.
  
- F. Utility pipe materials and fittings: Contractor shall provide all materials to Replace In Kind all public and private utilities damaged, removed, and/or destroyed during Work.
  1. Replacement of utilities shall use materials and system configuration that is the same as the pre-construction materials and configuration, unless otherwise specified in the Project Manual or indicated by Ecology in writing.
  2. Contractor shall identify and document all utility materials and utility configuration, and layout encountered during excavation.

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- G. Edging materials: Edging materials shall be pre-construction materials or new materials that are the same as pre-construction materials that are specifically designed and intended for confining Topsoil and landscape bed surface materials (i.e., mulch, lava rock, etc.) to the dimensions of the landscape bed and keep materials from intruding into lawn or hardscape areas.
1. Contractor shall determine where edging materials exist during Contractor's existing conditions assessment of each Property in accordance with **Section 02 22 00 - Existing Conditions Assessments**.
  2. Edging materials not identified by the Contractor during Contractor's existing conditions assessment of each Property, but uncovered during subsequent Work by Contractor shall be documented and restored.
  3. Where present, existing edging materials shall be approached as a feature of landscape beds and/or areas and shall be Removed, Removed and Reinstalled, or Remain In Place as specified for the individual feature.
  4. Contractor shall not replace pre-construction edging materials with alternative new materials different from the pre-construction edging materials unless authorized by Ecology in writing.
- H. Landscape bark: Weed-free bark mulch suitable for placement in landscape beds and for other exposed soil areas (i.e., around trees and shrubs, etc.).
1. Shall be free of inorganic debris, garbage, etc.
  2. Bark shall be ground so that a minimum of ninety-five (95) percent of the material shall pass through a 1-½-inch sieve and no more than fifty-five (55) percent, by loose volume, shall pass through a ¼-inch sieve.
  3. Shall contain no concentrations of any contaminating and/or hazardous substances.
- I. River Rock: Decorative River Rock to match the pre-construction surfacing materials in landscape beds and other decorative areas, or as specified to be placed in areas designated in **Appendix A01 - Contract Drawings**.
1. Contractor shall reuse existing materials to the maximum extent possible. Reused materials shall be washed before reuse to remove potentially contaminated dust.
  2. Contractor shall confirm sufficient availability and supply of replacement surfacing materials before removing and disposing of existing surfacing materials from each Property during Contractor's existing conditions assessment for each Property.
  3. Contractor shall supply new River Rock as necessary to supplement reused material. New River Rock shall be:
    - a. Washed river gravel having been naturally deposited by a river or stream.

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- b. Uniform in size.
- c. Free of organic matter, soil, non-river gravel, and trash.
- d. Composed of round rocks that may be varied in color.
- e. Originated from the Puget Sound Region of Washington State.
- f. River rock gradation shall meet the following specifications:

<b>Sieve Size</b>	<b>Percent Passing (By Weight)</b>
2-inch	100
½-inch	0

**PART 3 - EXECUTION**

**3.01 CONTRACTOR PREPARATION AND VERIFICATION OF CONDITIONS**

- A. Before commencing backfilling, grading, and compaction, Contractor shall:
  - 1. Verify survey benchmark and intended elevations for the Work are as indicated, and are available to field personnel and surveyors performing the Work.
  - 2. Verify erosion and sediment control measures are in place and operating properly.
  - 3. Verify the excavation and removal of contaminated soil has been completed to the depths indicated in the Project Manual, unless otherwise indicated.
  - 4. Verify required lines, elevation survey locations, elevation control points, final elevation marks, levels, contours, and datum have been identified and all conflicts have been resolved with Ecology.
  - 5. Verify all information required to meet grading tolerance Specifications has been provided to field personnel and that appropriate surveying equipment and trained personnel are present to direct Work to the specified tolerances.
  - 6. Verify horizontal locations of all pre-construction elevations, including all elevation control points and final elevation control marks.
  - 7. Verify surveying resources to conduct surveying as specified in **Section 01 71 23 - Field Engineering** are in order to achieve the tolerances specified in this Section.
- B. Before commencing backfilling, grading, and compaction, Contractor shall verify buildings, site features, improvements, trees, and vegetation that are specified to Remain In Place are protected and prominently marked.
- C. Before commencing backfilling, grading, and compaction, Contractor shall verify all Site features that have previously been Removed and Replaced In Kind or Removed and Reinstalled as part of the Work are protected and prominently marked.

### **3.02 SUBGRADE PROTECTION AND PREPARATION**

- A. Before commencing backfilling, grading, and compaction, Contractor shall verify the subgrade is stable and suitably compacted. If subgrade soils become loosened, disturbed, unstable, or too saturated to perform Work, Contractor shall excavate to expose undisturbed soil. Replacement with properly placed and, if specified, compacted fill shall be required. Subgrade shall meet requirements of **Article 3.03 and 3.04 of Section 31 23 16 – Excavation**.
- B. If subgrade or fill soils become loosened, disturbed, unstable, or too wet to perform Work, Contractor shall excavate to expose undisturbed soil. Replacement with properly placed and, if specified, compacted fill shall be required. The Contractor shall reduce disturbance by the following methods:
  - 1. Limit construction traffic over unprotected soil.
  - 2. Provide gravel “working mats”.
  - 3. Slope excavated surfaces to promote runoff.
  - 4. Seal exposed surfaces by rolling with a smooth drum compactor or rubber-tired roller at the end of each working day and removing wet surface soil prior to filling each day.
- C. Contractor shall repair and provide the additional excavation, disposal, and import of replacement material at no additional cost to Ecology.
- D. Topsoil and soil imported to the site with a fines content higher than 10 percent, shall be considered moisture sensitive. Placement and compaction of moisture-sensitive fill during periods of wet weather should be avoided by the Contractor. Fill that becomes too wet for either proper compaction or subsequent restoration Work activities shall be removed and replaced at no additional cost to Ecology.
- E. Contractor shall cover stockpiles during periods of wet weather to prevent the imported fill from becoming too wet to properly place and compact.

### **3.03 SEPARATION GEOTEXTILE FABRIC**

- A. After completed Site excavation and verifying excavation depths by surveying, and before placement of any backfill, the subgrade shall be covered with a separation geotextile fabric. The fabric shall be rolled out evenly and placed to cover the entire excavation surface, including sides. Where necessary to fit around buildings, structures, improvements, slabs, trees, and vegetation to Remain In Place, fabric can be cut accordingly. A minimum of six (6) inches of overlap shall be made between different sheets of separation geotextile fabric.
  - 1. Install in accordance with manufacturer recommendations.
  - 2. Contractor shall minimize traffic over fabric until buried under the first lift of backfill.

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**3.04 GENERAL PROCEDURES FOR FILL PLACEMENT**

- A. Do not fill over ponded water, frozen soil, or existing subgrade surfaces that are yielding, disturbed, unstable under foot traffic or heavier loads, or softened; as determined by Ecology. Contractor shall remove unsuitable subgrade surface materials prior to backfilling at no additional cost to Ecology.
- B. Suspend backfilling when the weather conditions will not allow proper placement and compaction or when water or frozen ground cannot otherwise be controlled by Contractor.
- C. Fill placement shall be performed in such a fashion as to avoid damage to buried utilities, including by using light compaction equipment adjacent to and over utilities. Damage to utility lines shall be repaired promptly and service shall be restored at no additional cost to Ecology.
- D. To the extent where buried utility lines are exposed by excavation activities, Contractor shall install tracer tape of the appropriate type aligned over the utility in accordance with all codes and requirements applicable.
- E. After placement of fill and before sod, seed, or other surfacing is placed, Contractor shall verify by surveying that all elevation control points and elevation control marks surveyed as specified in **Section 01 71 23 - Field Engineering** achieve the tolerances specified in this section. Contractor shall verify that the grade transition between each point and mark accurately represents the pre-construction topography.
- F. Unless otherwise indicated by the pre-construction topography and/or site features, Contractor shall make grade changes gradual. Blend slope into level areas. Construct uniform grades between spot elevations or contours.
- G. Grade areas adjacent to buildings, structures, and hardscape edges in a manner that provides positive drainage away from foundations and slabs-on-grade and prevents ponding at the building or structure itself. Grade areas to prevent ponding of water to the extent practicable.
- H. Grade slopes, steeper than defined in **Article 3.06 of Section 31 23 16**, as follows:
  - 1. Lifts of backfill for restoring existing slopes shall be placed level and compacted evenly. No void spaces between lifts of fill and vertical bench cuts will be permitted.
  - 2. Fill slopes shall be overbuilt by twelve (12) inches and then trimmed back to the required slope to maintain a firm face.
- I. Contractor shall employ all appropriate measures to control dust in accordance with SWPPP for both within the Project Site and in the surrounding properties and areas.
  - 1. Spray/mist backfill material and exposed surfaces as necessary to limit dust to lowest practicable level. Do not use excess water that would cause flooding, contaminated runoff, or icing.



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- J. Protect fill from erosion at all times during transport, stockpiling, and placement. Imported fill should not be delivered in muddy or frozen condition.
- K. Remove and dispose of excess fill materials to an approved waste disposal site at no additional expense to Ecology.

**3.05 COMMON FILL PLACEMENT**

- A. Prepare subgrade as indicated in subgrade preparation article.
- B. Backfill excavated areas of the Project Site with Common Fill to contours and elevations to achieve the required Topsoil and surfacing material final grades specified in the Project Manual.
  - 1. Place lifts of Common Fill material in continuous layers not exceeding six (6) inches in loose thickness for small, man-sized sleds and similar compactors, or eight (8) to ten (10) inches in loose thickness for heavier compaction equipment.
  - 2. Water settling or jetting shall not be permitted as a means of compaction.
  - 3. All backfill shall have a moisture content within +/-3% of optimum moisture content as determined by ASTM D1557 to achieve adequate compaction.
  - 4. Each lift of fill shall be observed by the Ecology Representative and hand-probed or proof rolled (with loaded dump truck) to confirm firm compact condition. Ecology's Representative may elect to test compaction (ASTM D2922) using a nuclear densometer (ASTM D2922) to confirm at least 90% of the maximum density determined in accordance with ASTM D1557 (generally firm condition). Observation of compaction activities can be used, provided the firm compaction of the lift of soil can be ascertained.
    - a. Backfill shall be moisture conditioned to an optimum moisture content for proper compaction. If moisture level is above optimum then aerate to dry and reduce moisture. Processes may also include placing thinner lifts and allowing material to dry; blading, turning, and disking material; or other methods approved by Ecology.
  - 5. Where less than the required firm compact condition is indicated by the Ecology Representative, Contractor shall remove and replace the substandard fill or apply additional compaction effort and moisture condition the soil as necessary until a firm compact condition is attained.
  - 6. Do not fill over ponded surface water (i.e., greater than half an inch) or existing subgrade surfaces which are yielding, disturbed, unstable under foot traffic or heavier loads, or softened.
  - 7. Suspend placing fill when the weather conditions will not allow proper placement and fill compaction, and surface water cannot otherwise be controlled by Contractor.

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8. Surveying of elevation control points and references to final elevation control marks shall be performed by Contractor as specified in Contract Documents and with additional frequency as Contractor or Ecology deems necessary during backfilling to verify Contractor is returning to the pre-construction, unless specified otherwise, Property elevations and topography.
- C. Backfill shall be performed in such a fashion as to avoid damage to buried utilities, including the use of light compaction equipment adjacent to and over utilities. Damage to utility lines shall be repaired promptly and service restored, at no additional cost to Ecology.
- D. Unless otherwise indicated by the pre-construction Property topography and/or site features, Contractor shall make grade changes gradual. Blend slope into level areas. Construct uniform grades between spot elevations or contours.
- E. To the extent where buried utility lines are exposed by excavation activities, the Contractor shall install tracer tape of the appropriate type aligned over the utility, in accordance with all codes and requirements applicable.
- F. Adjust Common Fill thickness to permit placing Topsoil to the thicknesses indicated for Sod and Topsoil Surface Areas (Article 3.06) and Landscape Bed Surface Areas (Article 3.07) surface materials. Contractor shall employ all appropriate measures to control dust both within the Project Site and the surrounding properties and areas.
  1. Sprinkle backfill material and exposed subsurface with water as necessary to limit dust to lowest practicable level. Do not use water to extent causing flooding, contaminated runoff, or icing.
- G. Remove and dispose of surplus fill materials from site to an approved waste site, at no additional cost to Ecology.

**3.06 TOPSOIL PLACEMENT - SOD SURFACE AREAS**

- A. Backfill excavated areas of the Project Site with Topsoil to contours and elevations to achieve the required final grades specified in the Project Manual. Place and compact Topsoil following the recommendations of **Article 3.05 - Common Fill Placement** with the following exceptions:
  1. Compaction testing with a nuclear densometer should be used to confirm at least 80% of the maximum density determined in accordance with ASTM D1557 (generally firm condition), if direct by Ecology.
  2. Backfill shall have a moisture content within +/-5% of optimum moisture content as determined by ASTM D1557 to achieve adequate compaction.
- B. Excavation Greater than 12 Inches: In excavations greater than twelve (12) inches where sod is to be installed at the surface, place and compact a minimum of twelve (12) inches of Topsoil above Common Fill. Adjust Common Fill thickness to allow

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surface material to meet required final grades to the specified tolerances in this Section.

1. Topsoil shall be installed to the specified tolerances in this Section.
  2. Protect Topsoil from erosion at all times during transport, stockpiling, and placement. Imported topsoil should not be delivered in muddy or frozen condition.
- C. Excavation 12 Inches or Less: In excavations twelve (12) inches or less where sod is to be installed at the surface, place Topsoil full depth to complete earthwork restoration providing adequate depth for the thickness of the surface material to meet required final grades.
1. Topsoil shall be installed to the specified tolerances in this Section.
  2. Protect Topsoil from erosion at all times during transport, stockpiling, and placement. Imported topsoil should not be delivered in muddy or frozen condition.
- D. The Topsoil shall be evenly spread over the backfill surface in one (1) or two (2) lifts as follows.
1. Contractor shall place the first lift of a minimum of six (6) inches in loose thickness. This lift shall be placed and lightly compacted according to the sod supplier's requirements and specifications. Contractor shall place the second lift of as many inches as needed to achieve the finish grade tolerances.
  2. Rake, float, drag, roll, and perform all necessary operations to remove surface irregularities and to provide a firm, smooth surface with positive surface drainage. Remove all rocks, sticks and other debris two (2) inches and larger. Box drag and hand rake all areas to receive sod.
  3. Use only hand methods for Topsoil placement inside the CRZ of trees indicated to Remain In Place.
- E. After placement of Topsoil and before sod or other surfacing is placed, Contractor shall verify by surveying that all elevation control points and final elevation control marks surveyed as specified in **Section 01 71 23 – Field Engineering** achieve the tolerances specified in this Section. Contractor shall verify the grade transition between each point and mark, confirming grades accurately represent the required topography of each Property. Excavate or install an additional lift of material as necessary to achieve required grades.
- F. Contractor shall employ all appropriate measures to control dust both within the Project Site and the surrounding properties and areas.
1. Sprinkle backfill material and exposed subsurface with water as necessary to limit dust to lowest practicable level. Do not use excessive water that degrades subgrade soil, causes flooding, contaminated runoff, or icing.
- G. Remove and dispose of surplus Topsoil materials to an approved waste site, at no additional cost to Ecology.

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**3.07 TOPSOIL PLACEMENT - LANDSCAPE BED SURFACE AREAS**

- A. In excavations with landscape beds at the surface, place and compact Topsoil to complete earthwork restoration providing adequate depth for the thickness of the surface material to meet required final grades to the tolerances specified in this Section. Contractor shall not place Common Fill below Topsoil in landscape beds.
- B. During Topsoil grading for landscape beds and where necessary to restore pre-construction conditions for the landscape bed, reinstall edging materials.
  - 1. Edging shall not extend more than 0.25 inches above the top of landscape bed surface materials and surrounding sod, unless pre-construction conditions of a specified landscape bed edging indicate more exposure.
    - a. Contractor shall be responsible for documenting pre-construction materials, alignment, and condition of all landscape edging before Work is performed on each Property.
- C. After placement of Topsoil, the specified landscape surfacing materials noted below shall be placed as specified on **Appendix A01 - Contract Drawings**.
  - 1. Exposed Topsoil: All landscape beds or other areas where Topsoil will remain exposed shall be surfaced with landscape bark a minimum of one (1) inch thick to meet final grade.
  - 2. Landscape Surfacing Aggregate: In landscape beds whereby Contractor, and if landscape surfacing materials in those beds are to be a gravel, decorative crushed rock, River Rock, Pea Gravel, round rock, or lava rock, a minimum of four (4) inches of surfacing material shall be placed in landscape bed to meet final grade, unless noted otherwise on **Appendix A01 - Contract Drawings**.
  - 3. 2-inch-Thick Landscape Bark: In landscape beds where landscape bark is used, a minimum of two (2) inches of landscape bark shall be placed above final grade established by Topsoil for each landscape bed.
    - a. Through consultation with Ecology, taper landscape bark at edge of landscape bed to match surrounding surface.
    - b. See Detail 3 of Sheet C100.0 of the **Appendix A01 - Contract Drawings** for the extent of Landscape Bark around trees.
    - c. If the tree or plant is within a landscape bed where bark is specified, restore the area within the tree or plant dripline with landscape bark.

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**3.08 AGGREGATE SURFACING, PAVER STONE SURFACING, AND CONCRETE SUBGRADE PLACEMENT/PREPARATION**

- A. Areas to receive aggregate surfacing or paver stone/brick surface features shall be backfilled with Common Fill to establish a subgrade six (6) inches below the restored final site grades and contours surveyed by Contractor.
- B. Areas to receive sidewalks, concrete drives or concrete slabs-on-grade shall be backfilled with Common Fill to establish a subgrade the thickness of existing adjacent concrete (3 inches minimum) below the restored site grades and contours surveyed by Contractor.
- C. The upper twelve (12) inches of Common Fill shall be compacted to a firm and unyielding condition with no pumping or other evidence of instability. The Ecology Representative shall verify compacted state of subgrade prior to placement/installation of overlying site features.
- D. Where less than the required firm and unyielding compact condition is indicated by the Ecology Representative, Contractor shall remove and replace the substandard subgrade or fill or apply additional compaction effort and moisture condition the soil as necessary until a firm compact condition is attained.
- E. Contractor shall protect all subgrade surfaces from damage or deterioration as indicated in this Section.

**3.09 GRADING FOR RESTORING EXISTING SLOPES**

- A. Lifts of backfill for restoring existing slopes shall be placed level and compacted evenly. No void spaces between lifts of fill and vertical bench cuts will be permitted.
- B. Make grade changes gradual. Blend slope into level areas. Construct uniform grades between spot elevations or contours.
  - 1. Fill slopes shall be overbuilt by twelve (12) inches and then trimmed back to the required slope to maintain a firm face.

**3.10 SITE TOLERANCES**

- A. Tolerance for Common Fill at all elevation locations surveyed by Contractor as specified in **Section 01 71 23 - Field Engineering** shall be **0 to +1.0 inch**.
- B. Tolerance for finished grades, after placement of Topsoil and final surfacing (i.e., sod, gravel surfacing, or specified landscaped area surfacing), shall match required contours, elevations, elevation control points, and final elevation control marks established by pre-construction surveys performed by the Contractor as specified in **Section 01 71 23 - Field Engineering**. This shall include all surveyed elevations within each Property and elevations indicated by pre-construction photography and/or video documentation by either Contractor or Ecology.

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- C. Tolerance for elevation control points after placement of Topsoil and final surfacing material within each Property shall be **0 to +0.5 inch**.
- D. Tolerance for final elevation control marks on permanent and/or Remain In Place buildings, structures, and other site features shall be **±0.0 inch** in any direction.
- E. After final grades are achieved, if more than 75 percent of the elevation control points and final elevation control marks applicable to each lawn area Decision Unit area and individual landscape bed area are lower than the measured elevations, but still within the tolerances specified in this Section, Contractor shall add and lightly compact Topsoil to raise the overall elevation area closer to the measured elevations.
- F. If these survey measurements are not performed and all corrections specified in this Section are not implemented by Contractor before placement of sod or other surface material, Contractor shall remove sod or other surface materials, correct grade, and restore at no additional cost to Ecology.
- G. Tolerance for restoration of all clotheslines, fences, buildings, and other site and landscape structures and features, unless otherwise specified in the Project Manual shall be **±1.0 inch** in any direction.

**3.11 CLEANING**

- A. Dispose of waste, surplus, and unsuitable materials according to laws, regulations, and ordinances offsite at no additional cost to Ecology.
- B. Contractor shall maintain hauling routes clean and free of debris resulting from Work of this Section at no additional cost to Ecology.

**END OF SECTION 31 23 23**

**SECTION 32 14 00  
UNIT PAVING**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all materials, equipment and labor necessary for construction and reconstruction of concrete, brick and stone paver surfaces to be Removed and Reinstalled during Work.

**1.02 RELATED SECTIONS**

- A. Section 01 45 16.13 – Contractor Quality Control
- B. Section 01 71 23 – Field Engineering

**1.03 SUBMITTALS**

- A. Concrete, brick, and stone paver units and edging material product data.
- B. Base and Bedding Material Samples: Submit sample of sufficient size to allow for confirmation testing for each material a minimum of ten (10) working days prior to the use of material, unless otherwise indicated.
  - 1. Where multiple sources for materials are to be used for the Work, one (1) sample shall be submitted for each source.
- C. Base and Bedding Material Test Reports:
  - 1. Sieve analysis for each material.
  - 2. Where multiple sources for materials are to be used for the Work, a complete set of test reports shall be submitted for each source.
  - 3. Contractor shall submit test reports to Ecology demonstrating that materials meet the Specifications in the Contract Documents. If tests indicate materials do not meet specified requirements, the Contractor shall change materials and retest at no additional cost to Ecology.
- D. Import Material Documentation: Documentation for each pit source and material that it does not have contamination in accordance with **Article 2.01 of Section 31 23 23 – Fill**.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 14 00 – UNIT PAVING**

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**1.04 QUANTITY MEASUREMENT AND CONTRACT SUM**

- A. Contractor shall include in the Contract Sum the cost of materials to restore all unit paver areas specified in the Project Manual.
- B. All import, placement and compaction of materials required to achieve the completed structures, as indicated in the Project Manual, shall be included in the Contract Sum and no adjustments shall be allowed by Ecology.
  - 1. If the Contractor's sequencing of the Work requires stockpiling and double handling of materials, this shall be accomplished within the Contract Sum amount at no additional cost to Ecology.

**1.05 REFERENCES**

- A. Contractor shall comply with applicable provisions of the following standard specifications and documents:
  - 1. City of Everett Construction Standards.
  - 2. ASTM C936 Standard Specification for Solid Concrete Paving Units.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Stockpile materials on site within clearing limits, away from potential damage by Work activities, and at approved locations. The Contractor shall be responsible for protecting the stockpiled material.

**1.07 DIMENSIONS AND LAYOUTS**

- A. The Contractor shall be responsible for furnishing, setting and marking all line and location stakes, including offsets and general construction staking. When Work requiring control is being performed, all necessary related equipment, supplies and instruments shall be on site and in use by Contractor. A qualified layout engineer, surveyor, or technical specialist must be assigned to the Contractor's crew for this Work. This equipment and personnel must be available, at no additional cost to Ecology, for the purpose of verifying layout, conformance of grading, and certifying the accuracy of Work on the Project Site.
- B. The Contractor shall be responsible for preserving all benchmarks and stakes and the replacement of any that are displaced or missing.
- C. The Contractor shall be responsible for review of all utility purveyor, and City, County or State records relative to the existing underground utilities. The Contractor shall be responsible for avoiding damage to these facilities and shall restore all utilities at Contractor's own expense.



**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 14 00 – UNIT PAVING**

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- D. The Contractor shall notify the Ecology Representative immediately if underground utilities not shown in the Project Manual are encountered.

**PART 2 – PRODUCTS**

**2.01 MATERIALS**

- A. Concrete, brick or stone paver units:
1. To the maximum extent practicable, Contractor shall reuse existing concrete, brick or stone paver units in the restoration of all unit paving areas.
  2. Where additional paver unit materials are necessary, such as replacement of destroyed existing paver units or areas identified for expansion of existing unit paving areas, and unless otherwise specified in **Appendix A01 – Contract Drawings**, Contractor shall supply paver units equal to the type and appearance of existing, adjacent paver units.
- B. If the existing Base and Bedding materials cannot be reused, use the following materials.
1. Base material: Material shall be manufactured from ledge rock, talus or gravel and shall be 5/8-inch-minus crushed rock meeting the gradation of **Article 2.01.A of Section 32 15 00**.
  2. Bedding Sand: Sand shall conform to the requirements for concrete sand in ASTM C33 (gradation below) with the following revisions:
    - a. The materials shall be uniform in quality and substantially free from wood, roots, bark, and other extraneous material.

<b>Sieve Size</b>	<b>Percent Passing</b>
3/8-inch	100
No. 4	95-100
No. 8	80-100
No 16	50-85
No. 30	35-60
No. 50	5-30
No. 100	0-10
No. 200	0-1

- C. Edging materials: Edging materials shall be wood, steel, aluminum or plastic materials specifically designed and intended for confining the final edges of paving unit surfaces.
1. Material shall conform to manufacturer’s requirements for specific pavers used for each Property.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 14 00 – UNIT PAVING**

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**PART 3 – EXECUTION**

**3.01 CONTRACTOR PREPARATION AND VERIFICATION OF CONDITIONS**

- A. Before commencing placement and compaction of base materials, Contractor shall:
1. Verify survey benchmark and intended elevations for the Work are made available for the Work as specified. Set stringlines, posts, or similar means to indicate elevations for base materials, bedding sand and paving units.
  2. Verify building site features, improvements, trees and vegetation specified to Remain In Place are protected and prominently marked.
  3. Verify erosion and sediment control measures are in place and operating properly.
  4. Verify the placement and compaction of imported fill has been completed to the subgrade elevations below the specified thickness of base materials, bedding sand and paving units.
  5. Verify required lines, levels, contours, and datum have been identified and all conflicts have been resolved with Ecology.
  6. Verify existing grade elevations to be matched.
  7. Confirm the existing subgrade has been compacted to a firm and unyielding condition. Soft and/or unstable areas identified by the Ecology Representative shall be overexcavated to a firm subgrade and replaced at no additional cost to Ecology.
    - a. No topsoil shall be placed beneath areas of unit pavers.

**3.02 SUBGRADE PREPARATION AND PROTECTION**

- A. Prepare subgrades below base and bedding material as specified in **Section 31 23 23 – Fill**.
- B. If base or bedding surfaces become loosened or disturbed, Contractor shall excavate to expose undisturbed soil. Replacement with properly compacted surfacing shall be required. The Contractor may reduce disturbance by the following methods:
1. Limit construction traffic over unprotected areas.
- C. Contractor shall repair and provide the additional excavation, disposal, and import of replacement material at no additional cost to Ecology.
- D. If pavers loosen or displace during period of Work, Contractor shall correct the condition at no additional cost to Ecology according to the Specifications.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 14 00 – UNIT PAVING**

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**3.03 GRADING PROCEDURES**

- A. Place and compact base material.
  - 1. Place the base material in two (2) single, continuous lifts with a maximum of four (4) inches in loose thickness per lift.
  - 2. Compact the base material to a firm and unyielding condition.
  - 3. Water settling or jetting shall not be permitted as a means of compaction.
  - 4. Placement and compaction of base material shall be observed by the Ecology Representative and hand-probed to confirm firm and unyielding compact condition.
  - 5. Where less than the required firm compact condition is indicated by the Ecology Representative, Contractor shall remove and replace the substandard surfacing or apply additional compaction effort and moisture condition as necessary until a firm compact condition is attained.
  - 6. Contractor shall not place surfacing over ponded surface water or existing subgrade surfaces which are yielding, disturbed, or softened.
  - 7. The finished surface of the compacted base material shall have tolerance of  $\pm 3/8$  inch over 10 feet in any direction.
- B. Placement and compaction of unit paver base material shall be performed in such a fashion as to avoid damage to buried utilities, including the use of light compaction equipment adjacent to, and over, utilities. Damage to utility lines shall be repaired promptly and service restored, at no additional cost to Ecology.
- C. Place bedding sand.
  - 1. Sand shall be placed and screeded to a consistent, even thickness between one (1) inch and 1- $\frac{1}{2}$  inch.
  - 2. Sand shall not be used to fill depressions in base material.
- D. Contractor shall employ all appropriate measures to control dust both within the Project Site and the surrounding properties and areas.
  - 1. Sprinkle surfacing material and exposed subsurface with water as necessary to limit dust to lowest practicable level. Do not use water to extent causing flooding, contaminated runoff or icing.
- E. Remove and dispose of surplus materials to an approved waste site, at no additional cost to Ecology.

**3.04 UNIT PAVER INSTALLATION**

- A. Paver units shall be placed snugly against surrounding units to restore surface to existing condition or as specified herein.

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**SECTION 32 14 00 – UNIT PAVING**

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1. Pavers shall be firmly founded on bedding material and shall be level and flush with the edges of adjacent paver units.
  2. String lines or similar methods shall be used to keep the pattern of paving units straight.
- B. After placement of pavers, edging material shall be installed in conformance with manufacturer's requirements and relevant work standards.
1. Edging shall be spiked firmly a minimum of every twenty-four (24) lineal inches.
- C. Sand shall be used to completely fill joints. Vibration shall be used to permit complete filling of joints with sand.
1. All paver units within three (3) feet of unfinished edges shall have the joints full at the end of each workday.

**3.05 SITE TOLERANCES**

- A. Finish grade after placement of unit paver surfaces shall match contours and elevations established by pre-construction surveys performed by the Contractor.
- B. Tolerance for restoration of all paver surfaces, unless otherwise specified in the Contract Documents shall be  $\pm 3/8$  inch over 10 feet in any direction and no greater than 1/8-inch difference in height between adjacent pavers.

**3.06 CLEANING**

- A. Dispose of waste, surplus, and unsuitable materials according to laws, regulations, and ordinances offsite at no additional cost to Ecology.
- B. Contractor shall maintain hauling routes clean and free of debris resulting from Work of this Section at no additional cost to Ecology.

**END OF SECTION 32 14 00**

**SECTION 32 15 00  
AGGREGATE SURFACING**

**PART 1 – GENERAL**

**1.01 DESCRIPTION OF WORK**

- A. Provide all materials, equipment and labor necessary for placement and compaction of aggregate surfacing for drive areas and landscaping.

**1.02 RELATED SECTIONS**

- A. Section 01 45 16.13 – Contractor Quality Control
- B. Section 01 71 23 – Field Engineering

**1.03 SUBMITTALS**

- A. Samples:
  - 1. Submit minimum ten (10) pound sample for each material a minimum of ten (10) working days prior to the use of material, unless otherwise indicated.
  - 2. Where multiple sources for materials are to be used for the Work, one (1) sample shall be submitted for each source.
- B. Test Reports:
  - 1. Sieve analysis for each material.
  - 2. Where multiple sources for materials are to be used for the Work, a complete set of test reports shall be submitted for each source.
  - 3. Contractor shall submit test reports to Ecology demonstrating that materials meet the Specifications. If tests indicate materials do not meet specified requirements, the Contractor shall change materials and retest at no additional cost to Ecology.
- C. Documentation:
  - 1. Documentation for each pit source and material that it does not have contamination in accordance with **Article 2.01** of **Section 31 23 23 – Fill**.

**1.04 QUANTITY MEASUREMENT AND CONTRACT SUM**

- A. Contractor shall include in the Contract Sum the cost of achieving all restored final aggregate surfacing grades present at the Project Site.

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**SECTION 32 15 00 – AGGREGATE SURFACING**

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- B. All import, placement and compaction required to achieve the final grades and completed structures, as indicated in the Project Manual, shall be included in the Contract Sum.
  - 1. If the Contractor's sequencing of the Work requires stockpiling and double handling of materials, this shall be accomplished within the Contract Sum amount at no additional cost to Ecology.

**1.05 REFERENCES**

- A. Contractor shall comply with applicable provisions of the following standard specifications and documents:
  - 1. City of Everett Construction Standards.
  - 2. ASTM C136 Standard Method for Sieve Analysis of Fine and Coarse Aggregate.
  - 3. ASTM D422 Method for Particle Size Analysis of Soils
  - 4. ASTM D4318 Liquid Limit, Plastic Limit and Plasticity Index of Soils
  - 5. AASHTO T176 Plastic Fines in Graded Aggregates and Soils by use of the Sand Equivalent Test.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Stockpile materials on site within clearing limits and at approved locations. The Contractor shall be responsible for protecting the stockpiled material.
- B. Direct surface water away from stockpiles to prevent erosion or material deterioration.
- C. When removing stockpile, leave area in a clean and neat condition. Grade site surface to prevent free-standing surface water.
- D. Stockpiles shall be constructed upon the prepared sites in accordance with stakes set by the Engineer. The piles when completed shall be neat and regular in shape. The stockpile height shall be limited to a maximum of 24 feet. Stockpiles in excess of 200 cubic yards shall be built up in layers not more than 4 feet in depth. Contractor shall provide survey stakes for stockpiles.
- E. Material integrity will be influenced by the weather conditions and the Contractor's handling and protection of the material as it is handled and placed. It is the sole responsibility of the Contractor to protect material from the elements. Material that is deemed unsuitable due to lack of protection shall be rejected by Ecology. The Contractor shall be responsible for removing such material and replacing with acceptable material at no additional cost to Ecology.
- F. Maintain toe of stockpiles at least six (6) feet from edges of trenches and excavations. Pile so surface water is prevented from flowing into excavations. Provide free access

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to fire hydrants, water valves, meters; private driveways; and leave clearance to enable the free flow of storm water in gutters, conduits, and natural water courses.

**1.07 WET WEATHER CONDITIONS**

- A. Exposed slopes shall be sloped away from existing buildings and other structures.

**1.08 DIMENSIONS AND LAYOUTS**

- A. The Contractor shall be responsible for furnishing, setting and marking all line and location stakes, including offsets and general construction staking. When Work requiring control is being performed, all necessary related equipment, supplies and instruments shall be on site and in use by Contractor. A qualified layout engineer, surveyor, or technical specialist must be assigned to the Contractor's crew for this Work. This equipment and personnel must be available, at no additional cost to Ecology, for the purpose of verifying layout, conformance of grading, and certifying the accuracy of Work on the Project Site.
- B. The Contractor shall be responsible for preserving all benchmarks and stakes and the replacement of any that are displaced or missing.
- C. The Contractor shall be responsible for review of all utility purveyor, and City, County or State records relative to the existing underground utilities. The Contractor shall be responsible for avoiding damage to these facilities and shall restore all utilities at Contractor's own expense.
- D. The Contractor shall notify the Ecology Representative immediately if underground utilities not shown in Contract Documents are encountered.

**PART 2 – PRODUCTS**

**2.01 MATERIALS**

- A. 5/8-Inch minus Crushed Rock (References to "Gravel" on the Contract Drawings shall be interpreted to mean 5/8-Inch minus Crushed Rock unless otherwise indicated).
  - 1. 5/8-minus crushed rock shall be hard durable stone and generally gray in color. The material shall be free of debris, trash, and free of other deleterious material.
  - 2. 5/8-minus crushed rock gradation shall meet the following specifications:

<b>SIEVE SIZE</b>	<b>PERCENT PASSING (By Weight)</b>
¾-inch	99-100
½-inch	80-100
No. 4	46-66
No. 40	8-24

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No. 200	0-10
% Fracture	75 min.

**B. 1 ¼-minus Crushed Rock**

1. 1 ¼-minus crushed rock shall be manufactured from durable stone and generally gray in color. The material shall be uniform in quality; substantially free from wood, roots, and bark; and free of debris, trash, and other deleterious material.
2. 1 ¼-minus crushed rock shall meet the following requirements for grading:

<b>SIEVE SIZE</b>	<b>PERCENT PASSING (By Weight)</b>
1 ¼-inch	99-100
1-inch	80-100
5/8-inch	50-80
No. 4	25-45
No. 40	3-18
No. 200	<7.5
% Fracture	75 min.

3. The combined aggregate retained on the No. 4 sieve shall have at least one fractured face and shall not contain more than 0.15 percent wood waste.
4. Contractor shall only use 1-1/4-inch minus crushed aggregate as a final surface material where specified in **APPENDIX A01 – CONTRACT DRAWINGS** or when indicated by Ecology in writing.

**C. Pea Gravel**

1. Pea gravel shall be:
  - a. Washed gravel having been naturally deposited by a river or stream.
  - b. Uniform in size.
  - c. Free of organic matter, soil, non-river gravel, and trash.
  - d. Composed of round rocks that may be varied in color.
  - e. Originated from the Puget Sound Region of Washington State.
2. Pea gravel gradation shall meet the following specifications:

<b>SIEVE SIZE</b>	<b>PERCENT PASSING (By Weight)</b>
½-inch	99-100
3/8-inch	74-100
No. 4	3-30
No. 8	0-10



**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 15 00 – AGGREGATE SURFACING**

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**PART 3 – EXECUTION**

**3.01 CONTRACTOR PREPARATION AND VERIFICATION OF CONDITIONS**

- A. Before commencing placement and compaction of aggregate surfacing, Contractor shall:
1. Verify survey benchmark and intended elevations for the Work are made available for the Work as specified.
  2. Verify building site features, improvements, trees and vegetation specified to Remain In Place are protected and prominently marked.
  3. Verify erosion and sediment control measures are in place and operating properly.
  4. Verify the excavation and removal of contaminated soil has been completed to the depths indicated in the Contract Documents, unless otherwise indicated.
  5. Verify required lines, levels, contours, and datum have been identified and all conflicts have been resolved with Ecology.
  6. Verify existing grade elevations to be matched.
  7. Confirm the existing subgrade has been compacted to a firm and unyielding condition. Soft and/or unstable areas identified by the Ecology Representative shall be overexcavated to a firm subgrade and replaced at no additional cost to Ecology.
    - a. No topsoil shall be placed beneath areas of aggregate.

**3.02 SUBGRADE PREPARATION AND PROTECTION**

- A. If aggregate surfacing becomes loosened or disturbed, Contractor shall excavate to expose undisturbed soil. Replacement with properly compacted surfacing shall be required. The Contractor may reduce disturbance by the following methods:
1. Limit construction traffic over unprotected areas.
  2. Contractor shall repair and provide the additional excavation, disposal, and import of replacement material at no additional cost to Ecology.
- B. Subgrade shall meet requirements of **Article 3.03 and 3.04** of **Section 31 23 23 – Fill**.

**3.03 PLACEMENT PROCEDURES**

- A. Grade areas adjacent to buildings and structures in a manner that provides positive drainage away from foundations and slabs-on-grade and prevents ponding at the building or structure, itself.

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**SECTION 32 15 00 – AGGREGATE SURFACING**

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- B. Place aggregate surfacing in areas of the Project Site indicated, to contours and elevations corresponding to the restored site grades and contours in those areas as surveyed by Contractor.
  - 1. Place the aggregate surfacing in a single, continuous loose lift thickness as noted in **Appendix A01 - Contract Drawings**.
  - 2. Compact the aggregate to a firm and unyielding condition.
  - 3. Add additional aggregate lifts as necessary to achieve final grade and required tolerances. Compact the aggregate to a firm and unyielding condition
  - 4. Water settling or jetting shall not be permitted as a means of compaction.
  - 5. Placement and compaction of aggregate surfacing shall be observed the Ecology Representative and hand-probed or proof-rolled to confirm firm and unyielding compact condition.
  - 6. Where less than the required firm compact condition is indicated by the Ecology Representative, Contractor shall remove and replace the substandard surfacing or apply additional compaction effort and moisture condition as necessary until a firm compact condition is attained.
  - 7. Contractor shall not place surfacing over ponded surface water or existing subgrade surfaces which are yielding, disturbed, or softened.
- C. Placement and compaction of aggregate surfacing shall be performed in such a fashion as to avoid damage to buried utilities, including the use of light compaction equipment adjacent to and over utilities. Damage to utility lines shall be repaired promptly and service restored, at no additional cost to Ecology.
- D. Use only hand methods for backfilling inside either a ten (10) foot radius of tree base or the drip line (whichever is greater) of trees indicated to remain, and in accordance with **Section 01 56 39 – Temporary Tree and Plant Protection**.
- E. Contractor shall employ all appropriate measures to control dust both within the Project Site and the surrounding properties and areas.
  - 1. Water surfacing material and exposed subsurface as necessary to limit dust to lowest practicable level. Do not use water to extent causing flooding, contaminated runoff or icing.
- F. Remove and dispose of surplus aggregate surfacing materials to an approved waste site, at no additional cost to Ecology.

**3.04 SITE TOLERANCES**

- A. Tolerance for finished grades, after placement of final surfacing shall match pre-construction contours, elevations, elevation control points, and final elevation control marks established by pre-excavation surveys performed by the Contractor as specified in **Section 01 71 23 – Field Engineering**. This shall include all surveyed

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**SECTION 32 15 00 – AGGREGATE SURFACING**

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elevations within each Property; final elevation marks on permanent and/or Remain In Place buildings, structures, and other site features; and elevations indicated by pre-construction photography and/or video documentation by either Contractor or Ecology.

- B. Tolerances for elevation control points and final elevation control marks on restored gravel surfaces shall be:
  - 1. For surfaces of 5/8-inch minus crushed aggregate surfaces:  $\pm 0.5$  inches.
  - 2. For surfaces of 1-1/4-inch minus crushed aggregate surfaces:  $\pm 1.0$  inch.
- C. After final grades have been achieved, if more than 75 percent of the elevation control points and final elevation control marks applicable to the gravel surfacing area are lower than the required elevations, but still within the tolerances specified in this Section, Contractor shall add and compact additional gravel aggregate to raise the overall elevation area closer to the required elevations.

**3.05 CLEANING**

- A. Dispose of waste, surplus, and unsuitable materials according to laws, regulations, and ordinances offsite at no additional cost to Ecology.
- B. Contractor shall maintain hauling routes clean and free of debris resulting from Work of this Section at no additional cost to Ecology.

**END OF SECTION 32 15 00**

**SECTION 32 16 00**  
**CURBS, GUTTERS, SIDEWALKS, AND DRIVEWAYS**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all transportation, materials, equipment and labor necessary to replace and/or install (construct) concrete curbs, gutters, sidewalks, and driveways. This section is intended for repair and/or replacing damaged concrete curbs, gutters, sidewalks, and/or driveways.
- B. The Contract Drawings and Site work do not include any curb, gutter, or sidewalk work. However, in case of damage to existing structures, Contract is required to repair (at no cost to Ecology) any damaged structure. Contractor shall match existing conditions.
- C. Width, thickness, geometry, and extent of curb, gutter, and sidewalk shall be based on existing conditions.
- D. Requirements for concrete sidewalks apply to concrete driveways, unless otherwise shown or specified, or unless concrete pavement requirements are included in the Contract Documents.

**1.02 RELATED SECTIONS**

- A. Section 03 30 00 – Cast in-place concrete.
- B. Section 31 23 16 – Excavation.

**1.03 REFERENCES**

- A. City of Everett Design and Construction Standards (2021).
  - 1. Section 300, Streets and Related Work. Including, but not limited to the following Curbs and Gutters, Sidewalks, and Driveways.

**1.04 MEASUREMENT AND PAYMENT**

- A. Remove and Replace Concrete Sidewalk.
  - 1. Quantities of “Remove and Replace Concrete Sidewalk” will be measured and paid for by square foot of concrete sidewalk removed, disposed, and replaced, including removal and restore of any conflicting fence to the correct property line as directed by the Engineer. Quantities of “Remove and Replace Concrete

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 16 00 – Curbs, Gutters, Sidewalks, and Driveways**

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Sidewalk” will be paid for at the contract price per measured quantity, and shall include full compensation for furnishing transportation, labor, materials, tools, equipment, and incidental costs. All work be completed and in place as accordance with project plans, specifications, and City standards.

- B. Remove and Replace Concrete Driveway Approach.
  - 1. Quantities of “Remove and Replace Concrete Driveway Approach” will be measured and paid for by square feet of concrete sidewalk removed, disposed, and replaced, including removal and restore of any conflicting fence to the correct property line as directed by the Engineer. Quantities of “Remove and Replace Concrete Driveway Approach” will be paid for at the contract price per measured quantity, and shall include full compensation for furnishing transportation, labor, materials, tools, equipment, and incidental costs. All work be completed and in place as accordance with project plans, specifications, and City standards.
- C. Remove and Replace Concrete Curb and Gutter (including min. 1-foot of asphalt concrete).
  - 1. Quantities of “Remove and Replace Concrete Curb and Gutter (including min. 1-foot of asphalt concrete)” will be measured and paid for by linear feet of concrete curb and gutter removed, disposed, and replaced, and including construction of 1-foot of asphalt concrete 3 inches deep along the installed curb and gutter. Quantities of “Remove and Replace Concrete Curb and Gutter (including min. 1-foot of asphalt concrete)” will be paid for at the contract price per measured quantity, and shall include full compensation for furnishing transportation, labor, materials, tools, equipment, and incidental costs. All work be completed and in place as accordance with project plans, specifications, and City standards.

**1.05 QUALITY ASSURANCE**

- A. Qualifications:
  - 1. Installer shall have not less than two years’ experience installing concrete curbs, gutters, and sidewalks similar to those required for the Work.
    - a. When required by Engineer, submit record of experience documenting not less than three successful, completed projects. For each project, submit name the following information: project name, location of project, approximate quantity of concrete curb, gutter, and sidewalk constructed by installer, contract price of concrete curb, gutter, and sidewalk construction, and name and contact information for project owner and the project’s construction-phase engineer.

**1.06 SUBMITTALS**

- A. Submit concrete mix design to Engineer for approval.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 16 00 – Curbs, Gutters, Sidewalks, and Driveways**

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**1.07 PROTECTION OF EXISTING CONDITIONS**

- A. Protect Work, adjacent property, and public. Contractor shall be responsible for any damage or injury arising from Contractor's actions or neglect.

**PART 2 – PRODUCTS**

**2.01 MATERIALS**

- A. Comply with Specifications Divisions 03 and 32 referenced in this Section.

**PART 3 – EXECUTION**

**3.01 INSPECTION**

- A. Examine subgrade, subbase, and conditions under which the Work is will be performed and notify Engineer in writing of unsatisfactory conditions. Do not proceed with the Work until unsatisfactory conditions have been corrected. Subgrade shall meet requirements of **Section 31 23 23 – Fill**.
- B. General:
1. All work shall be inspected and approved by the City's inspector.
  2. Construct concrete curb, walk, gutters, access ramps, and driveway in conformance with City Design and Construction Standards and Specifications (Volume 2, Section 300).
  3. Subgrade preparation and concrete used shall be in conformance to City Design and Construction Standards and Specifications (Volume 2, Section 300).
  4. Concrete sidewalks and driveways shall, unless otherwise provided, be in conformance to City Design and Construction Standards and Specifications (Volume 2, Section 300).
- C. Formwork:
1. Construct form work per City Design and Construction Standards and Specifications.
  2. Construct forms that can be removed without hammering or prying against the concrete.
  3. Provide plywood sheathing for all exposed concrete
  4. Form exposed angles in concrete with neat 3/4-inch chamfers and fillets.
  5. Remove forms in accordance with City Design and Construction Standards and Specifications.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 16 00 – Curbs, Gutters, Sidewalks, and Driveways**

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D. Placing Concrete:

1. Place concrete curbs, walks, gutters, cross gutters, alley intersections, and access ramps, and driveway in conformance with City Design and Construction Standards and Specifications
2. Construct weakened-plane (contraction) joints in conformance with City Design and Construction Standards and Specifications, unless otherwise directed by City inspector or Engineer.
3. Construct construction joints against existing concrete in conformance with City Design and Construction Standards and Specifications, unless otherwise directed by City inspector or Engineer.

E. Placing Reinforcement:

Place reinforcing bars in conformance with City Design and Construction Standards and Specifications.

**3.02 PROTECTION AND CLEANING**

- A. Protect finish concrete surfaces from stains, abrasions, and other damages.
- B. Repair or replace broken or defective curbs, gutters, and sidewalk as directed by Engineer.
- C. Sweep the concrete curb, sidewalk, and gutter Work and wash free of stains, discolorations, dirt, and other foreign material.

**END OF SECTION 32 16 00**

**SECTION 32 31 00  
FENCES AND GATES**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all labor, materials, equipment, transportation, and services to reinstall, replace, or repair existing fencing removed to perform, or damaged due to the Work, as well as extend existing fencing as indicated in the Project Manual.
- B. Work shall include identification of existing fencing materials and configuration, and matching of new fencing materials to existing.

**1.02 RELATED SECTIONS**

- A. Section 01 71 23 – Field Engineering
- B. Section 02 22 00 – Existing Conditions Assessment
- C. Section 03 30 00 – Cast-in-Place Concrete

**1.03 SUBMITTALS**

- A. Based upon Contractor's existing conditions assessments, Contractor shall submit Product Data for each fence to be constructed or reconstructed, including details of all component parts and installation details for the fence installation.

**PART 2 – PRODUCTS**

**2.01 MATERIALS**

- A. Fencing materials shall match the materials of the existing fences for each Property to be extended, reinstalled, and/or replaced. Contractor shall inventory materials as part of Contractor's existing conditions assessments before Work is began for each Property.
- B. Concrete materials shall be in accordance with **Section 03 30 00 – Cast-in-Place Concrete**.



**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 31 00 – FENCES AND GATES**

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**PART 3 – EXECUTION**

**3.01 REMOVAL OF EXISTING FENCE**

- A. All rails, braces, posts, and the like shall be removed and disposed of or salvaged by Contractor to allow construction of the Project as described on **Appendix A01 – Contract Drawings**.

**3.02 EXCAVATION**

- A. Stake out or mark fence locations for approval by the Ecology Representative prior to digging post footings and installation.
- B. Set posts uniform in horizontal and vertical alignment, equally spaced, as indicated for existing conditions assessed by Contractor. Hold tops of all concrete footings at least six (6) inches below finish grade.
- C. No post holes shall be left open or unguarded during installation.
- D. Contractor shall be familiar with locations of all underground utilities including irrigation.
  - 1. Notify Ecology promptly of any conflict encountered.
- E. Do not contaminate topsoil in seeded or planted areas with soil from post excavations. Use plastic sheeting or other measures to keep materials separated.
  - 1. Remove and dispose of excess soils to an approved disposal site.
- F. Excavations for fence posts shall be as follows, unless otherwise indicated.
  - 1. Ends and Corners (for fencing up to six (6) feet high): Twelve (12) inch hole diameter, eighteen (18) inches deep, twelve (12) inch post embedment in concrete.
  - 2. Line (for fencing up to six (6) feet high): Twelve (12) inch hole diameter, eighteen (18) inches deep, twelve (12) inch post embedment in concrete.
  - 3. Ends and Corners (for fencing six (6) feet high and taller): Twelve (12) inch hole diameter, forty-two (42) inches deep, thirty-six (36) inch post embedment in concrete.
  - 4. Line (for fencing up to six (6) feet high and taller): Twelve (12) inch hole diameter, thirty-six (36) inches deep, thirty (30) inch post embedment in concrete.

**3.03 SITE TOLERANCES**

- A. Tolerance for restoration of all fences, unless otherwise specified in the Project Manual shall be  $\pm 1.0$  inch in any direction.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 31 00 – FENCES AND GATES**

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**3.04 PLACING CONCRETE**

- A. Place around posts in a continuous pour. Compact concrete by hand rodding.
- B. Finish tops of concrete by hand trowel to provide a sloped (crown) dome six (6) inches below finish grade unless noted otherwise.
  - 1. There shall be a one (1) inch (crown) slope away from post.

**3.05 FENCE CONSTRUCTION**

- A. Fence construction shall be in accordance with manufacturer's requirements as applicable for each fence type. Use fasteners, hardware, and brackets that provide for long life and that are compatible with the fence materials.

**3.06 CLEANING**

- A. Remove and dispose excess excavated material resulting from post installations at an approved disposal site.
- B. Clean up all concrete spills and splatter, as well as other handling and installation

**END OF SECTION 32 31 00**

**SECTION 32 32 00**  
**RETAINING WALLS**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Contractor shall provide all materials, transportation, equipment, and labor for restoration of existing retaining wall systems in accordance with this Section.
- B. Contractor shall conform to the lines, grades, design, and dimensions of existing walls and rock slopes specified for replacement with retaining walls in the Project Manual.
- C. Work includes furnishing and installing concrete leveling pad, unit drainage fill and backfill to the lines and grades matching pre-construction conditions.

**1.02 REFERENCES**

- A. American Society for Testing and Materials (ASTM)
  - 1. ASTM C140 Sampling and Testing Concrete Masonry Units
  - 2. ASTM C1372 Specification for Dry-Cast Segmental Retaining Wall Units
  - 3. ASTM D422 Particle-Size Analysis of Soils
  - 4. ASTM D4318 Liquid Limit, Plastic Limit and Plasticity Index of Soils
  - 5. ASTM D4475 Horizontal Shear Strength of Pultruded Reinforced Plastic Rods
  - 6. ASTM D4476 Flexural Properties of Fiber Reinforced Pultruded Plastic Rods
  - 7. ASTM D6638 Connection Strength - Reinforcement/Segmental Units
  - 8. ASTM D6916 Shear Strength Between Segmental Concrete Units
- B. National Concrete Masonry Association (NCMA)
  - 1. NCMA SRWU-1 Test Method for Determining Connection Strength of SRW
  - 2. NCMA SRWU-2 Test Method for Determining Shear Strength of SRW

**1.03 SUBMITTALS**

- A. Contractor shall submit a Manufacturer's certification, prior to start of Work, that the retaining wall system components meet the requirements of this Specification.
- B. Contractor shall submit product data and construction shop drawings for the specified walls. The layout, techniques and material evaluations shall be in accordance with the manufacturer's design manual.

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**SECTION 32 32 00 – RETAINING WALLS**

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**1.04 QUALITY ASSURANCE**

- A. Contractor shall provide backfill testing/confirmation and quality assurance inspection during earthwork and wall construction operations. Ecology may perform additional backfill testing and quality assurance inspection as needed. Ecology's quality assurance program does not relieve the Contractor of responsibility for quality control and wall performance.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Contractor shall check all materials upon delivery to ensure that the proper type, grade, color, and certification have been received.
- B. Contractor shall protect all materials from damage due to Work and Project Site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the Work.

**PART 2 – PRODUCTS**

**2.01 PRODUCT DEFINITIONS**

- A. Concrete Block Unit (or equivalent): A concrete retaining wall element machine-made from Portland cement, water, and aggregates.
- B. Unit Drainage Fill: Drainage aggregate that is placed within and immediately behind the concrete block units.

**2.02 CONCRETE BLOCK UNITS**

- A. Concrete block units for segmental block retaining walls shall conform to the following architectural requirements:
  - 1. Face color: Concrete gray, unless otherwise specified. Ecology may specify standard manufacturers' color.
  - 2. Face finish: Sculptured rock face in angular tri-planer configuration, or equal.
  - 3. Bond configuration: Running with bonds nominally located at midpoint of vertically adjacent units, in both straight and curved alignments.
  - 4. Exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of ten (10) feet under diffused lighting.
- B. Concrete block units shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.

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**SECTION 32 32 00 – RETAINING WALLS**

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- C. Concrete block units shall conform to the following structural and geometric requirements measured in accordance with ASTM C140 Sampling and Testing Concrete Masonry Units:
  - 1. Compressive strength:  $\geq 3000$  psi;
  - 2. Absorption:  $\leq 6$  % for standard weight aggregates;
  - 3. Dimensional tolerances:  $\pm 1/8$  inches from nominal unit dimensions not including rough split face,  $\pm 1/16$  inches unit height - top and bottom planes;
  - 4. Unit size: 8 inches (height) x 18 inches (width) x 12 inches (depth) minimum;
  - 5. Unit weight: 75-lbs/unit minimum for standard weight aggregates.
- D. Concrete block units shall conform to the following performance testing:
  - 1. Inter-unit shear strength in accordance with ASTM D6916 (NCMA SRWU-2): 600-plf minimum at 2-psi normal pressure.
- E. Concrete block units shall conform to the following constructability requirements:
  - 1. Vertical setback:  $\pm 1/8$  inch per course (near vertical) or  $\pm 1.0$  inch per course per the design;
  - 2. Alignment and grid positioning mechanism: fiberglass pins, two per unit minimum;
  - 3. Maximum horizontal gap between erected units shall be  $\leq 1/2$  inch.

**2.03 SHEAR CONNECTOR**

- A. Shear connectors for concrete block units shall be 1/2-inch diameter thermoset isophthalic polyester resin-pultruded fiberglass reinforcement rods to provide connection between vertically and horizontally adjacent units with the following requirements:
  - 1. Flexural Strength in accordance with ASTM D4476: 128,000 psi minimum;
  - 2. Short Beam Shear in accordance with ASTM D4475: 6,400 psi minimum.

**2.04 BASE LEVELING PAD MATERIAL**

- A. Material shall consist of either a minimum of two (2) inches of non-reinforced concrete or a minimum of four (4) inches of 5/8-inch-minus crushed aggregate gravel.

**2.05 UNIT DRAINAGE FILL**

- A. Unit drainage fill shall consist of clean 1-inch minus crushed stone or crushed gravel meeting the following gradation tested in accordance with ASTM D422:

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<b>Sieve Size</b>	<b>Percent Passing</b>
1 in.	100
3/4-in.	75-100
No. 4	0-10
No. 50	0-5

- B. Drainage fill shall be placed within the cores of, between, and behind the units. Not less than one (1) cubic foot of drainage fill shall be used for each square foot of wall face, unless otherwise specified.

**PART 3 – EXECUTION**

**3.01 BASE LEVELING PAD PREPARATION**

- A. Leveling pad trench shall provide for both a minimum four (4) inch final embedment below the lowest elevation of the toe of each segmental block wall and the thickness of the leveling pad material (either concrete or crushed aggregate gravel) to be used by Contractor.
- B. Leveling pad material shall be placed to the lines and grades required and extend laterally a minimum of three (3) inches in front and behind the concrete block wall unit.
- C. Leveling pad shall be prepared to ensure full contact to the base surface of the concrete block units.
- D. If crushed aggregate is used as leveling pad material, Contractor shall compact material to a firm and unyielding state before placing the first course of blocks. Contractor shall allow the Ecology Representative to verify compaction before placing the first course of blocks.

**3.02 CONCRETE BLOCK UNIT INSTALLATION**

- A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and ensure that all units are in full contact with the base and properly seated.
- B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
- C. Install shear/connecting devices per manufacturer's recommendations.
- D. Place and compact unit drainage fill within and behind wall units. Place and compact backfill soil behind unit drainage fill. Follow wall erection and unit drainage fill closely with adjacent backfill.
- E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed two (2) courses.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 32 00 – RETAINING WALLS**

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**3.03 BACKFILL PLACEMENT**

- A. Backfill shall be common fill placed, spread, and compacted as specified in **Section 31 23 23 - Fill**.
- B. Backfill shall be placed and compacted in lifts not to exceed six (6) inches in loose thickness. Lift thickness shall be adjusted to achieve the density required by the Ecology Representative.
- C. Backfill shall be compacted to firm and unyielding state, which shall be verified by the Ecology Representative before the next lift of soil is placed. Backfill shall be moisture-conditioned by Contractor to prevent soil from being either too wet (resulting in pumping or other unstable conditions) or too dry (preventing adequate compaction) as determined by the Ecology Representative.
- D. Only lightweight hand-operated equipment shall be allowed within three (3) feet of the back edge of the concrete block unit.
- E. At the end of each day's operation, the Contractor shall slope the last lift of backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

**3.04 CAP INSTALLATION**

- A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer, such as Keystone Kapseal, or equal.

**3.05 AS-BUILT CONSTRUCTION TOLERANCES**

- A. Vertical alignment:  $\pm 1.5$  inches over any ten (10) lineal feet distance.
- B. Wall Batter: within two (2) degrees of design batter.
- C. Horizontal alignment:  $\pm 1.5$  inches over any ten (10) lineal feet distance.
- D. Corners, bends and curves:  $\pm 1.0$  feet to required location.
- E. Maximum horizontal gap between erected units shall be  $\leq 1/2$  inch.

**3.06 FIELD QUALITY ASSURANCE**

- A. The Ecology Representative shall provide quality assurance during construction. This shall include evaluation of backfill placement and compaction as specified in the Contract Documents. This does not relieve the Contractor from securing additional construction quality control testing as necessary.

**END OF SECTION 32 32 00**

**SECTION 32 92 23  
SODDING**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all materials, equipment and labor necessary for installation/placement of sod as indicated in the Project Manual, including, protection, maintenance, guarantee and replacement.

**1.02 RELATED SECTIONS**

- A. Section 01 71 23 – Field Engineering
- B. Section 31 23 16 – Excavation

**1.03 SUBMITTALS**

- A. Sod: Contractor shall submit sod Product Data as recommended by supplier for the specific application and season of the year Work shall be performed.
  - 1. At least ten (10) working days prior to the start of excavation, submit documentation that sod has been ordered.
- B. Fertilizers and Other additives: Contractor shall submit Product Data as recommended by supplier for the specific application and season of the year Work is to be performed.
- C. Maintenance Log.

**1.04 QUALITY ASSURANCE**

- A. Sod Grass: Conform to Washington State Department of Agriculture Rules for Seed Certification.
- B. Fertilizer: Conform to Washington State Department of Agriculture Laws and Federal Specification O-F-241D pertaining to commercial fertilizers.

**1.05 PROTECTION OF EXISTING CONDITIONS**

- A. Protect Work, adjacent property, and public. Contractor shall be responsible for any damage or injury arising from Contractor's actions or neglect.
- B. Contractor shall protect sod from drying out from and from contamination during delivery, on-site storage, and handling.



**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 92 23 – SODDING**

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**1.06 SCHEDULING AND COORDINATION**

- A. Contractor shall begin installation of sod no more than five (5) working days after completing final placement and grading of topsoil, unless otherwise authorized by Ecology in writing.
- B. Confine Work to areas designated. Do not disturb existing vegetation outside of Project Site. Repair or replace vegetation damaged as a result of Contractor's operation to satisfaction of Ecology at no additional cost to Ecology.
- C. All sod to be installed for each Property shall be completed by Contractor before the Maintenance and Finishing Period for each Property can begin, unless authorized by Ecology in writing.

**1.07 GUARANTEE REPLACEMENT**

- A. Contractor shall guarantee a uniform sod lawn with no bare spots until the end of the 12-month warranty period.
  - 1. Replace with identical sod and in the manner originally specified any area which fails to vigorously establish a uniform lawn for any reason whatsoever.
  - 2. Fill to finish grade with approved topsoil and sod as specified for all sod areas with evidence of settlement or erosion before Final Completion.
  - 3. Repeat all such resodding until the end of the 12-month warranty period at no additional cost to Ecology.
- B. During Maintenance and Finishing Period, Contractor shall not be responsible for replacing lawn destroyed or damaged by vandalism or accidents caused by vehicles other than the Contractor's, or Acts of God, or severe cold as substantiated by a 25-year low temperature records (exceeding 25-year low), provided that Contractor has exercised due care to protect Work. Should replacement fall due during non-planting season, Contractor may request Ecology's permission to defer planting until proper season. Grass used for replacement shall be of same kind originally installed and shall be as originally specified.

**PART 2 – PRODUCTS**

**2.01 SOD**

- A. Sufficient quantity of sod, in rolls, to replace lawns as specified in the Project Manual.

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1. Sod shall be Perfect Green Sod manufactured by Country Green or equal acceptable to Ecology.
2. Contractor shall not use non-native species of grass for sod.
3. All sod used for a single Property shall be identical in appearance and be provided by the same supplier. Sod installed on adjacent Properties shall also be as uniform as possible.
4. The sod shall be field grown a minimum of one (1) calendar year prior to use in Work, have a well-developed root structure, and be free of weeds, disease, and insect damage.
5. Prior to cutting, the sod shall be green, in an active and vigorous state of growth, and mowed to a height not exceeding one (1) inch. The sod shall be cut with a minimum of one (1) inch of soil adhering.

**2.02 FERTILIZERS AND OTHER ADDITIVES**

- A. Approved brands conforming to applicable State fertilizer laws. Uniform in composition, dry, free-flowing, delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed analysis. All fertilizers must be EPA approved.
- B. Installation Fertilizer:
  1. Total available Nitrogen: 16% by weight (of which 50% is derived from controlled release sources including Nutralene).
  2. Total available phosphorous: 16% by weight.
  3. Total available potassium: 16% by weight.
- C. Maintenance Fertilizer:
  1. Total available Nitrogen: No more than 18% by weight (of which 50% is derived from controlled release sources).
  2. Total available Phosphorous: 12% by weight.
  3. Total available Potassium: 12% by weight.
  4. Contractor may substitute a seasonally appropriate maintenance fertilizer, in the event sod supplier recommends a different fertilizer during the maintenance and finishing period for each Property where sod is used. Contractor shall communicate this substitution in writing to Ecology, including explanation. When authorized by Ecology, Contractor may use substitute at no additional cost to Ecology.
- D. Other amendments as recommended by suppliers:
  1. Dolomitic Limestone at minimum rate of 50 pounds per 1,000 square feet.

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**SECTION 32 92 23 – SODDING**

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2. Gypsum to counteract salinity as recommended by sod supplier.
3. Adjust the basic quantities of the following micronutrients as recommended for:
  - a. Iron
  - b. Manganese
  - c. Molybdenum
  - d. Copper
  - e. Zinc
  - f. Boron

**PART 3 – EXECUTION**

**3.01 PREPARATION**

- A. After confirmation that topsoil placement has met the required elevation and grading tolerances, apply Installation Fertilizer at the rate of 10 pounds per 1,000 square feet. Rake to incorporate.
  1. Contractor shall demonstrate to the Ecology Representative that finish grades have been confirmed by surveying and all surfaces have been restored to its pre-construction condition.
- B. Finish surfaces by raking smooth and even and lightly compact with roller or equal. Level out surface undulations and irregularities to tolerances specified in Contract Documents and recompact as necessary.
- C. The Ecology Representative shall observe fertilization. Contractor shall notify Ecology a minimum of two (2) working days in advance of fertilization activities.

**3.02 SOD PLACEMENT**

- A. After finish grades are verified by Contractor with the Ecology Representative and the Installation Fertilizer has been applied as specified in this Section, Contractor shall install sod in accordance with supplier's and manufacturer's requirements.
- B. Strips of sod shall be placed such that the root zone of the sod shall be within the specified final tolerances for elevation control marks and the root crown set to the grade of all adjacent final elevation control marks, sidewalks and/or curbs.
- C. Sod shall be placed without voids and have end joints staggered and tightly fitted.
- D. Where new sod is placed adjacent to pre-existing sod, the seam shall be made flush, with a smooth and continuous grade, no gaps or ridges. Sod shall not be installed on top of pre-existing sod under any circumstances. If the pre-existing sod has been

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**SECTION 32 92 23 – SODDING**

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damaged as a result of construction activity (directly or indirectly) the pre-existing sod will be repaired to provide a uniform transition with the new sod.

- E. Sod strips shall be placed not later than forty-eight (48) hours after being cut.
- F. Sod shall be moistened by sprinkling or equal methods prior to being installed.
- G. On sloped areas, sod shall be laid with the long dimension oriented perpendicular to the slope surface.
- H. Following placement, sod shall be lightly rolled with a smooth, water-filled type roller, or equal, as recommended by the sod supplier. After rolling, sod shall be watered thoroughly by sprinkling.
  - 1. Contractor shall prevent traffic on sod until it has become well-established.
- I. All sod placement must be completed prior to Substantial Completion.
- J. Sod installation shall be performed during periods which are normal for such Work, as determined by season, weather conditions, and accepted practice. At the option and on the full responsibility of the Contractor, sodding operations may be conducted under unseasonable conditions without additional compensation and at no additional cost to Ecology.

**3.03 PROTECTION**

- A. Contractor shall protect sod areas from storm water and trespassing as necessary until sod is established. Contractor shall treat and resod damaged portions as required, at no additional cost to Ecology.

**3.04 MAINTENANCE FERTILIZATION**

- A. Contractor shall apply maintenance fertilizer in conformance with the season in which Work is performed and as directed by the sod supplier. At scheduled time approved by Ecology, Contractor shall apply a minimum of one (1) maintenance fertilizer before the end of the Maintenance and Finishing Period specified in this Section, unless otherwise authorized by Ecology in writing.

**3.05 RESODDING**

- A. In areas where sod coverage is observed to be weak or dead before Final Completion, repair any settlement and/or erosion channels, resod, and refertilize all areas.

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**3.06 MAINTENANCE AND FINISHING PERIOD**

- A. It shall be the Contractor's responsibility to continuously and vigorously maintain all the sodded areas of this Work from time of installation for a minimum of sixty (60) calendar days.
- B. All sod areas shall be watered regularly and as necessary due to weather conditions by Contractor during the maintenance and finishing period by thorough sprinkling as needed to keep the ground moist, the sod healthy, and to prevent wilting.
- C. Contractor shall provide temporary irrigation as needed. Temporary irrigation provisions shall be sufficient to water all areas at least once daily. Watering methods shall be designed to minimize overspray on to paved surfaces or established landscape areas.
  - 1. Contractor shall not use the private water supply of any Property of the Work as a source of water for temporary irrigation.
- D. Sod Areas:
  - 1. Maintain by watering, weekly mowing (remove all clippings), continuous weeding, resodding, fertilizing, herbicide treatment, rolling and top dressing, and other necessary operations to establish and maintain an even, dark green, deep rooted, thick and vigorous stand of grass. Temporarily water any areas that are not irrigated, until establishment.
  - 2. Care shall be exercised to prevent soil erosion.
  - 3. During the first two (2) weeks, at a minimum all sod shall be watered on a daily basis. During warm weather, sod may need to be lightly watered during mid- and late afternoon hours when water use and evaporation is greatest.
  - 4. Schedule irrigation so the lawn becomes firm enough to mow between waterings.
  - 5. Begin mowing the area as top growth develops, but keep the traffic level as low as possible. The recommended height for sod lawn grass is three (3) inches or more. Mow frequently enough so that no more than 1/3 of the grass blade is removed at one (1) mowing.
  - 6. Replace any sodded areas which fail to show vigorous growth. Fill and sod all areas which settle below the tolerances specified in the Contract Documents.
  - 7. At the end of the maintenance and finishing period for each Property, the sod areas shall be a flourishing, dense, vigorous, uniform, deeply rooted thick stand of specified grass with no bare spots and no weeds whatsoever.
  - 8. Areas not conforming to the Specifications of this Section shall remain the Contractor's responsibility, at no additional cost to Ecology, until the conditions meet the requirements of the Contract Documents.
- E. During the maintenance and finishing period specified in this Section:

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1. At no time are lawns and grass stands to be yellow, lacking in vigor, or not thriving.
  2. At no time are trees and shrubs to be lacking in vigor and not thriving.
  3. Provide a high level of maintenance as required to keep lawns and grass stands in top condition.
  4. For any portions of the sod that are not in top condition at the point of acceptance, provide additional maintenance, at no additional cost to Ecology, until such time as deficient areas are free of weeds or bare spots and in top quality condition.
  5. Provide Ecology a maintenance log for each Property during the duration of the maintenance and finishing work that details exact operations performed, including dates, name of person responsible, and amount of time spent on site.
    - a. Contractor shall provide copies as requested by Ecology.
- F. Schedule all maintenance and finishing work with Ecology with a minimum of five (5) working days' notice to allow for Ecology coordination and communication with Property Owner and/or Tenant(s) and to avoid conflicts with other Work.
- G. Contractor shall complete all sodding and restoration for each Property during that Property's maintenance and finishing period, unless otherwise authorized by Ecology in writing. This shall include all remedy Work identified during Work activities for the Property by Contractor, Ecology and the Ecology Representatives.

**3.07 CLEANUP**

- A. A general cleanup shall be made immediately after and as part of all Work done at the Project Site.
1. Adjacent areas shall be cleaned to the extent that the Work may scatter litter or debris.
- B. Such cleanup shall include pick-up and removal from the Project Site all clippings, trimmings, leaves, and all other litter and debris originating from any source whatsoever.

**END OF SECTION 32 92 23**

**SECTION 32 93 33  
SHRUBS**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all materials, equipment and labor necessary for planting of shrubs, ground cover, and other vegetation as indicated in the Project Manual, including, protection, maintenance, guarantee and replacement.
- B. The use of the terms “tree” and “shrub” in the Project Manual shall not be interpreted as a botanical label of these mapped features.

**1.02 RELATED SECTIONS**

- A. Section 01 71 23 – Field Engineering
- B. Section 31 23 16 – Excavation
- C. Section 02 22 00 – Existing Conditions Assessments

**1.03 SUBMITTALS**

- A. Plant Availability Statement: After completion of Contractor’s existing conditions assessments and before commencing clearing and grubbing or earthwork activities at the Project, Contractor shall submit to Ecology a statement that all vegetative material required for the Project is available during the Contract Time and has been ordered by Contractor.
- B. Product Data for Fertilizers, Binders and Other additives: Contractor shall submit Product Data as recommended by supplier for the specific application and season of the year Work is to be performed.
- C. Maintenance Log.

**1.04 QUALITY ASSURANCE**

- A. Vegetative Material: All vegetative material, Washington grade No. 1 as per State of Washington Department of Agriculture Order Numbers 1229, 1230 and 1322. Quality, size and condition as determined by standards set forth in the aforementioned Standards and the American Association of Nurserymen Standard ANSI 260.1-1973. Vegetation names shall conform to latest edition of "Standardized Plant Names" as adopted by American Joint Committee of Horticulture Nomenclature.

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**SECTION 32 93 33 – SHRUBS**

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- B. Fertilizer: Conform to Washington State Department of Agriculture Laws and Federal Specification O-F-241D pertaining to commercial fertilizers.

**1.05 PROTECTION OF EXISTING CONDITIONS**

- A. Protect Work, adjacent property, and public. Contractor shall be responsible for any damage or injury arising from Contractor's actions or neglect.

**1.06 SCHEDULING AND COORDINATION**

- A. Confine Work to areas designated. Do not disturb existing vegetation outside of Project Site. Protect all shrubs within Project Site not designated to be removed. Repair or replace vegetation damaged as a result of Contractor's operation to satisfaction of Ecology at no additional cost to Ecology.
- B. All vegetative material to be installed shall be completed by Contractor by the start of the Maintenance and Finishing Period for each Property, unless authorized by Ecology in writing.

**1.07 GUARANTEE REPLACEMENT**

- A. Guarantee in a healthy, thriving condition all shrubs and groundcovers until end of the 12-month warranty period.
  - 1. Plant containers and root balls shall be free of weeds.
  - 2. Any plants requiring replacement, or missing, must be replaced prior to start of Maintenance and Finishing Period.
  - 3. During the Maintenance and Finishing Period, all dead diseased, dying, broken or disappeared plant materials from any cause except those noted below shall be replaced immediately by the Contractor at no additional cost to Ecology.
  - 4. Use specified vegetation and plant as specified; guarantee active, healthy growth.
- B. During guarantee period, Contractor shall not be responsible for replacing vegetation destroyed or damaged by vandalism or accidents caused by vehicles other than the Contractor's, or Acts of God, or severe cold as substantiated by a 25-year low temperature records (exceeding 25-year low), provided that Contractor has exercised due care to protect work. Should replacement fall due during non-planting season, Contractor may request Ecology's permission to defer planting until proper season. If permission is granted, immediately remove and dispose of dead plants, including all roots. Holes shall be backfilled properly with topsoil and finish graded



**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 33 – SHRUBS**

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until proper planting season occur. Vegetation used for replacement shall be of same kind originally planted and shall be planted as originally specified unless noted otherwise on the **Appendix A01 - Contract Drawings**).

**PART 2 – PRODUCTS**

**2.01 VEGETATION MATERIALS**

- A. Quantities, species and varieties, size and condition as identified in the Project Manual and as indicated in Contractor's existing conditions assessment inventory. Vegetation shall be Washington Grade No. 1, fresh, well foliated, in prime condition when in leaf, exhibiting normal habit of growth, having all buds intact and free of disease, injury, insects, insect eggs, larva, indication of strawberry root weevil, all seeds and weed roots.
  - 1. Shrubs shall be provided in a minimum two (2) gallon size.
  - 2. Other vegetation shall be provided in a minimum four (4) inch pot size unless otherwise directed by Ecology.
- B. All vegetation material shall be ordered immediately following completion of Contractor's existing conditions assessments which shall include identification of all vegetation to be Removed and Replaced In Kind. Contractor shall be responsible for assuring that vegetation of specified sizes and quantities shall, in fact, be as specified at the time of planting.
- C. All vegetation shall be from stock which has been acclimated to conditions prevailing at the Project Site and which have been consistently cultivated and grown in these conditions.
- D. Ball and burlapped (B&B) stock shall have a natural ball sufficient to ensure survival and healthy growth
  - 1. Bare root materials shall have sufficient root system to ensure survival and healthy growth.
- E. No substitutions shall be made without the written approval of Ecology. Requests for substitutions must be made at the time that documentation of ordered vegetative material is provided. The substitution request must be accompanied by written proof from at least two (2) major vegetation suppliers that the specified vegetation is not available.

**2.02 FERTILIZERS AND SOIL AMENDMENTS**

- A. General:
  - 1. Approved brands conforming to applicable State fertilizer laws. Uniform in composition, dry, free-flowing, delivered to the site in original unopened

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**SECTION 32 93 33 – SHRUBS**

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containers, each bearing the manufacturer's guaranteed analysis. All fertilizers must be EPA approved.

2. All fertilizers shall conform to the requirements of the vegetative material supplier(s) for each plant type and kind.

**B. Shrubs and Ground Cover:**

1. Formula 4.2.2 "Transplanter" as manufactured by Pacific Agro Co., with Hercules Nitroform and W.R. Grace's "Magamp" and trace elements; or equal.
2. Apply fertilizer at the following rate (ounces per plant) or as directed by vegetative material supplier and fertilizer manufacturer:
  - a. Shrubs: 4 oz.
  - b. Ground Cover: 2 oz.

**C. Agriform Tablets:**

1. Planting tablets, 21-gram size, as manufactured by Agriform International Chemicals, Inc., 20-10-5 analysis; or equal.
2. Apply tablets at the following rate (tablets per plant) or as directed by vegetative material supplier and fertilizer manufacturer:
  - a. Shrubs: 2 tablets
  - b. Ground Cover: 1 tablet

**2.03 STAKES AND GUYS**

- A. If Contractor elects to use stakes and guys, material as needed for new planting shall be provided by Contractor at no additional cost to Ecology.

**2.04 LANDSCAPING BARK**

- A. Landscaping bark placed at the surface around vegetation and in landscape beds and other areas where specified shall be derived from Douglas fir, pine, or hemlock species.
  1. Bark shall be ground so that a minimum of ninety-five (95) percent of the material shall pass through a 1 ½-sieve and no more than fifty-five (55) percent, by loose volume, shall pass through a ¼-inch sieve.
  2. The bark shall not contain resin, tannin, or other compounds in quantities that would be detrimental to plant life.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 33 – SHRUBS**

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**PART 3 – EXECUTION**

**3.01 PREPARATION**

- A. After placement of topsoil, position shrubs above ground. Contractor and the Ecology Representative shall both verify locations from pre-existing photographs and/or video and measurements collected by Contractor during surveying and existing conditions assessment.
  - 1. Make field adjustments to avoid obstructions to planting.
  - 2. Ecology reserves the right to field adjust vegetation locations prior to planting.

**3.02 PLANTING SCHEDULE**

- A. Plant shrubs and groundcover during periods which are normal for such work, as determined by season, weather conditions, and accepted practice.
- B. Contractor shall notify Ecology after completion of existing conditions assessments and before clearing and grubbing for each Property if Contractor identifies shrubs, groundcover, and other vegetation that cannot be planted during the Contract Time.
  - 1. Notification shall include a presentation of alternative(s) and supplier recommendations for appropriate seasons.
  - 2. At Ecology's discretion and on a case-by-case basis, Ecology shall direct Contractor in writing if variations in the Contract Documents shall be permitted.
  - 3. Shrubs shall be planted during appropriate seasonable conditions.

**3.03 PLANTING SHRUBS AND GROUND COVERS**

- A. After topsoil placement and approval of finish grade, excavate planting pockets at locations approved by Ecology and as directed to a diameter of twice the root spread and to a depth that shall ensure a three (3) inch cushion of compacted planting mix below the root ball.
  - 1. Excavated soil shall be removed from the site.
  - 2. If encountered, cut and remove an eighteen (18) inch radius of separation geotextile fabric, based on the center of shrub, to permit planting of shrubs and facilitate growth.
- B. Set vegetation upright in center of hole flush with finish grade, release root covering or spreading roots.
  - 1. The roots of the vegetation shall be placed as to have a natural spread and distribution.

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**SECTION 32 93 33 – SHRUBS**

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- C. Backfill with topsoil to compact backfill and provide slight depression as watering saucer.
  - 1. Care shall be taken not to injure the root system while backfilling and compacting the topsoil.
- D. Fertilize at the rate recommended by supplies and apply uniformly around the circumference of the root spread under a cover of two (2) inches of topsoil.
  - 1. Apply Agriform tablets and soil polymers per manufacturer's recommendations.
- E. Plant ground cover vegetation at in straight, evenly spaced rows.

**3.04 PROTECTION**

- A. Contractor shall protect vegetation from wind, storm water and trespassing. Contractor shall treat and/or replace damaged vegetation as required, at no additional cost to Ecology.

**3.05 PRUNING AND REPAIR**

- A. Upon completion of the Work, all shrubs shall be pruned as directed by Ecology and any injuries repaired.
- B. Pruning shall be done in such a manner as not to change the natural habit or shape of the vegetation.
  - 1. All cuts shall be made flush, leaving no stubs.
  - 2. On all cuts over 3/4 inch in diameter and bruises or scars on the bark, the injured cambium shall be traced back to living tissue and removed.
  - 3. Wounds shall be smoothed and shaped so as not to retain water, and the treated area shall be coated with approved tree wound compound.

**3.06 LANDSCAPE BARK INSTALLATION**

- A. Immediately after completion of all planting, install landscape bark in all restored landscape beds and areas with a minimum of two (2) inches of bark where landscape bark is specified.
- B. Bark shall be installed with a 1-inch buffer around the trunk or stem of the plant to prevent rot.

**3.07 MAINTENANCE AND FINISHING PERIOD**

- A. It shall be the Contractor's responsibility to continuously and vigorously maintain all the planted and landscaped areas of this Work from time of installation for a minimum of sixty (60) calendar days.

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**SECTION 32 93 33 – SHRUBS**

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- B. All vegetation shall be watered regularly and as necessary due to weather conditions by Contractor during the Maintenance and Finishing Period by thorough sprinkling as needed to keep the ground moist, the vegetation healthy, and to prevent wilting.
- C. Contractor shall provide temporary irrigation as needed. Temporary irrigation provisions shall be sufficient to water all areas at least once daily. Watering methods shall be designed to minimize overspray on to paved surfaces or established landscape areas.
  - 1. Contractor shall not use the private water supply of any Property of the Work as a source of water for temporary irrigation.
- D. Vegetation and landscape beds:
  - 1. Maintain by watering, continuous weeding, fertilizing, as directed by manufacturer and by supplier(s) of each plant, herbicide treatment, and other necessary operations to establish and maintain a healthy color and appearance for each replacement plant.
  - 2. Care shall be exercised to prevent soil erosion.
  - 3. During the first two (2) weeks, at a minimum, new vegetation at Project Site shall be watered on a daily basis. During warm weather, new vegetation may need to be lightly watered during mid- and late afternoon hours when water use and evaporation is greatest.
  - 4. Replace any new vegetation which fail to show vigorous growth and health.
  - 5. New vegetation not conforming to the Specifications of this Section shall remain the Contractor's responsibility, at no additional cost to Ecology, until the conditions meet the requirements of the Contract Documents.
- E. Provide Ecology a maintenance log for each Property during the duration of the maintenance and finishing work that details exact operations performed, including dates, name of person responsible, and amount of time spent on site.
  - 1. Contractor shall provide copies as requested by Ecology.
- F. Schedule all maintenance and finishing work with Ecology with a minimum of five (5) working days' notice to allow for Ecology coordination and communication with Property Owner and/or Tenant(s) and to avoid conflicts with other Work.
- G. Contractor shall complete all planting and restoration for each Property prior to that Property's Maintenance and Finishing Period, unless otherwise authorized by Ecology in writing. This shall include all remedy Work identified during Work activities for the Property by Contractor, Ecology and the Ecology Representatives.

**3.08 CLEANUP**

- A. A general cleanup shall be made immediately after and as part of all Work done at the Project Site.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
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1. Adjacent areas shall be cleaned to the extent that the Work may scatter litter or debris.
- B. Such cleanup shall include pick-up and removal from the Project Site all clippings, leaves, and all other litter and debris originating from any source whatsoever.
- C. Remove flag labels from all vegetative material.
  1. Contractor shall collect and provide all flag labels from each Property to the Ecology Representative by the end of each Property's Maintenance and Finishing Period.

**END OF SECTION 32 93 33**

**SECTION 32 93 43  
TREES**

**PART 1 – GENERAL**

**1.01 SECTION INCLUDES**

- A. Provide all materials, equipment and labor necessary for planting of trees as indicated in the Project Manual, including, protection, maintenance, guarantee and replacement.
- B. The use of the terms “tree” and “shrub” in the Project Manual shall not be interpreted as a botanical label of these mapped features. Plants in each Property of significant size were mapped and noted as a “tree” if they were of substantial size and/or could cause “tree-like” restrictions for equipment access or adequate removal of soil in compliance with the Specifications. Tree diameters are not provided in the Contract Documents and shall be measured at the time Work is performed for each Property.

**1.02 RELATED SECTIONS**

- A. Section 01 71 23 – Field Engineering.
- B. Section 31 23 16 - Excavation.

**1.03 SUBMITTALS**

- A. Plant Availability Statement: After completion of Contractor’s existing conditions assessments and before commencing clearing and grubbing or earthwork activities at the Project, Contractor shall submit to Ecology a statement that all vegetative material required for the Project is available during the Contract Time and has been ordered by Contractor.
- B. Product Data for Fertilizers, Binders and Other additives: Contractor shall submit Product Data as recommended by supplier for the specific application and season of the year Work is to be performed.
- C. Maintenance Log.

**1.04 QUALITY ASSURANCE**

- A. Vegetative Material: All vegetative material, Washington grade No. 1 as per State of Washington Department of Agriculture Order Numbers 1229, 1230 and 1322. Quality, size and condition as determined by standards set forth in the

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 43 – TREES**

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aforementioned Standards and the American Association of Nurserymen Standard ANSI 260.1-1973. Vegetation names shall conform to latest edition of "Standardized Plant Names" as adopted by American Joint Committee of Horticulture Nomenclature.

- B. Fertilizer: Conform to Washington State Department of Agriculture Laws and Federal Specification O-F-241D pertaining to commercial fertilizers.

**1.05 PROTECTION OF EXISTING CONDITIONS**

- A. Protect Work, adjacent property, and public. Contractor shall be responsible for any damage or injury arising from Contractor's actions or neglect.

**1.06 SCHEDULING AND COORDINATION**

- A. Confine Work to areas designated. Do not disturb existing vegetation outside of Project Site. Protect all trees within Project Site not designated to be removed. Repair or replace vegetation damaged as a result of Contractor's operation to satisfaction of Ecology at no additional cost to Ecology.
- B. All vegetative material to be installed shall be completed by Contractor by the start of the Maintenance and Finishing Period for each Property, unless authorized by Ecology in writing.

**1.07 GUARANTEE REPLACEMENT**

- A. Guarantee in a healthy, thriving condition all trees until end of the 12-month warranty period.
  - 1. Plant containers and root balls shall be free of weeds.
  - 2. Any plants requiring replacement, or missing, must be replaced prior to start of Maintenance and Finishing Period.
  - 3. During the Maintenance and Finishing Period, all dead diseased, dying, broken or disappeared plant materials from any cause except those noted below shall be replaced immediately by the Contractor at no additional cost to Ecology.
  - 4. Use specified vegetation and plant as specified; guarantee active, healthy growth.
- B. During guarantee period, Contractor shall not be responsible for replacing vegetation destroyed or damaged by vandalism or accidents caused by vehicles other than the Contractor's, or Acts of God, or severe cold as substantiated by a 25-year low temperature records (exceeding 25-year low), provided that Contractor



**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 43 – TREES**

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has exercised due care to protect work. Should replacement fall due during non-planting season, Contractor may request Ecology's permission to defer planting until proper season. If permission is granted, immediately remove and dispose of dead plants, including all roots. Holes shall be backfilled properly with topsoil and finish graded until proper planting season occur. Vegetation used for replacement shall be of same kind originally planted and shall be planted as originally specified (except as otherwise specified in **Appendix A01 - Contract Drawings**).

**PART 2 – PRODUCTS**

**2.01 VEGETATION MATERIALS**

- A. Quantities, species and varieties, size and condition as identified in the Project Manual and as indicated in Contractor's existing conditions assessment inventory. Vegetation shall be Washington Grade No. 1, fresh, well foliated, in prime condition when in leaf, exhibiting normal habit of growth, having all buds intact and free of disease, injury, insects, insect eggs, larva, indication of strawberry root weevil, all seeds and weed roots.
  - 1. Trees shall be provided in a minimum two (2) gallon size.
- B. All vegetation material shall be ordered immediately following completion of Contractor's existing conditions assessments which shall include identification of all vegetation to be Removed and Replaced In Kind. Contractor shall be responsible for assuring that vegetation of specified sizes and quantities shall, in fact, be as specified at the time of planting.
- C. All vegetation shall be from stock which has been acclimated to conditions prevailing at the Project Site and which have been consistently cultivated and grown in these conditions. No cold storage vegetation.
  - 1. All grafted trees shall be grafted at ground level.
- D. Ball and burlapped (B&B) stock shall have a natural ball sufficient to ensure survival and healthy growth
  - 1. Bare root materials shall have sufficient root system to ensure survival and healthy growth.
- E. No substitutions shall be made without the written approval of Ecology. Requests for substitutions must be made at the time that documentation of ordered vegetative material is provided. The substitution request must be accompanied by written proof from at least two (2) major vegetation suppliers that the specified vegetation is not available.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 43 – TREES**

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**2.02 FERTILIZERS AND SOIL AMENDMENTS**

A. General:

1. Approved brands conforming to applicable State fertilizer laws. Uniform in composition, dry, free-flowing, delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed analysis. All fertilizers must be EPA approved.
2. All fertilizers shall conform to the requirements of the vegetative material supplier(s) for each plant type and kind.

B. Trees:

1. Formula 4.2.2 "Transplanter" as manufactured by Pacific Agro Co., with Hercules Nitroform and W.R. Grace's "Magamp" and trace elements; or equal.
2. Apply fertilizer at the following rate (ounces per plant) or as directed by vegetative material supplier and fertilizer manufacturer:
  - a. Trees: 8 oz.

C. Agriform Tablets:

1. Planting tablets, 21-gram size, as manufactured by Agriform International Chemicals, Inc., 20-10-5 analysis; or equal.
2. Apply tablets at the following rate (tablets per plant) or as directed by vegetative material supplier and fertilizer manufacturer:
  - a. Trees: 4 tablets

**2.03 STAKES AND GUYS**

- A. If Contractor elects to use stakes and guys, material as needed for new planting shall be provided by Contractor at no additional cost to Ecology.

**2.04 LANDSCAPING BARK**

- A. Landscaping bark placed at the surface around vegetation and in landscape beds and other areas where specified shall be derived from Douglas fir, pine, or hemlock species.
1. Bark shall be ground so that a minimum of ninety-five (95) percent of the material shall pass through a 1 ½-sieve and no more than fifty-five (55) percent, by loose volume, shall pass through a ¼-inch sieve.
  2. The bark shall not contain resin, tannin, or other compounds in quantities that would be detrimental to plant life.
  - 3.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 43 – TREES**

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**PART 3 – EXECUTION**

**3.01 PREPARATION**

- A. After placement of topsoil, stake tree locations above ground. Contractor and the Ecology Representative shall both verify locations from pre-existing photographs and/or video and measurements collected by Contractor during surveying and existing conditions assessment.
  - 1. Make field adjustments to avoid obstructions to planting.
  - 2. Ecology reserves the right to field adjust vegetation locations prior to planting.

**3.02 PLANTING SCHEDULE**

- A. Plant trees during periods which are normal for such work, as determined by season, weather conditions, and accepted practice.
- B. Contractor shall notify Ecology after completion of existing conditions assessments and before clearing and grubbing for each Property if Contractor identifies trees that cannot be planted during the Contract Time.
  - 1. Notification shall include a presentation of alternative(s) and supplier recommendations for appropriate seasons.
  - 2. At Ecology's discretion and on a case-by-case basis, Ecology shall direct Contractor in writing if variations in the Contract Documents shall be permitted.
- C. Trees shall be planted during appropriate seasonable conditions.

**3.03 PLANTING TREES**

- A. Excavate tree pits twice the diameter of the root ball.
  - 1. Excavated soil shall be removed from the site.
  - 2. Thoroughly scarify bottom of pits by shovel cutting to a depth of twelve (12) inches. Sides of pits shall also be shovel cut to help root penetration.
  - 3. If encountered, cut and remove an eighteen (18) inch radius of separation geotextile fabric, based on the center of tree, to permit planting of trees and facilitate growth.
- B. Place tree in upright position in center of pit, release root covering or spread roots.
  - 1. Roots of trees shall be so placed as to have a natural spread and distribution.
  - 2. The tree shall be placed so that no portion of the tree above the root crown will be buried.
- C. Topsoil shall be carefully, thoroughly packed below and around roots.

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 43 – TREES**

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1. Take care not to injure root system while backfilling and compacting.
- D. Thoroughly water tree and allow water to drain and settle. After water settles, fill again with topsoil to a grade of not more than 1/2 inch higher than the root ball. In sodded and seeded areas, finish grade smooth with surrounding area.
- E. Fertilize trees at the specified rate applied uniformly around circumference of root spread under a cover of two (2) inches of planting mix.
  1. Apply Agriform tablets and soil polymers per manufacturer's recommendations.
- F. Stake and guy trees immediately after planting.
  1. All supports and trees shall stand vertical.

**3.04 PROTECTION**

- A. Contractor shall protect vegetation from wind, storm water and trespassing. Contractor shall treat and/or replace damaged vegetation as required, at no additional cost to Ecology.

**3.05 PRUNING AND REPAIR**

- A. Upon completion of the Work, all trees shall be pruned as directed by Ecology and any injuries repaired.
- B. Pruning shall be done in such a manner as not to change the natural habit or shape of the vegetation.
  1. All cuts shall be made flush, leaving no stubs.
  2. On all cuts over 3/4 inch in diameter and bruises or scars on the bark, the injured cambium shall be traced back to living tissue and removed.
  3. Wounds shall be smoothed and shaped so as not to retain water, and the treated area shall be coated with approved tree wound compound.

**3.06 LANDSCAPE BARK INSTALLATION**

- A. Immediately after completion of all planting, install landscape bark in all restored landscape beds and areas with a minimum of two (2) inches of bark where landscape bark is specified.
- B. Bark shall be installed with a 1-inch buffer around the trunk or stem of the plant to prevent rot.

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**3.07 MAINTENANCE AND FINISHING PERIOD**

- A. It shall be the Contractor's responsibility to continuously and vigorously maintain all the planted and landscaped areas of this Work from time of installation for a minimum of sixty (60) calendar days.
- B. All vegetation shall be watered regularly and as necessary due to weather conditions by Contractor during the Maintenance and Finishing Period by thorough sprinkling as needed to keep the ground moist, the vegetation healthy, and to prevent wilting.
- C. Contractor shall provide temporary irrigation as needed. Temporary irrigation provisions shall be sufficient to water all areas at least once daily. Watering methods shall be designed to minimize overspray on to paved surfaces or established landscape areas.
  - 1. Contractor shall not use the private water supply of any Property of the Work as a source of water for temporary irrigation.
- D. Vegetation and landscape beds:
  - 1. Maintain by watering, continuous weeding, fertilizing, as directed by manufacturer and by supplier(s) of each plant, herbicide treatment, and other necessary operations to establish and maintain a healthy color and appearance for each replacement plant.
  - 2. Care shall be exercised to prevent soil erosion.
  - 3. During the first two (2) weeks, at a minimum, new vegetation at Project Site shall be watered on a daily basis. During warm weather, new vegetation may need to be lightly watered during mid- and late afternoon hours when water use and evaporation is greatest.
  - 4. Replace any new vegetation which fail to show vigorous growth and health.
  - 5. New vegetation not conforming to the Specifications of this Section shall remain the Contractor's responsibility, at no additional cost to Ecology, until the conditions meet the requirements of the Contract Documents.
- E. Provide Ecology a maintenance log for each Property during the duration of the maintenance and finishing work that details exact operations performed, including dates, name of person responsible, and amount of time spent on site.
  - 1. Contractor shall provide copies as requested by Ecology.
- F. Schedule all maintenance and finishing work with Ecology with a minimum of five (5) working days' notice to allow for Ecology coordination and communication with Property Owner and/or Tenant(s) and to avoid conflicts with other Work.
- G. Contractor shall complete all planting and restoration for each Property prior to that Property's Maintenance and Finishing Period, unless otherwise authorized by

**DIVISION 32 – EXTERIOR IMPROVEMENTS**  
**SECTION 32 93 43 – TREES**

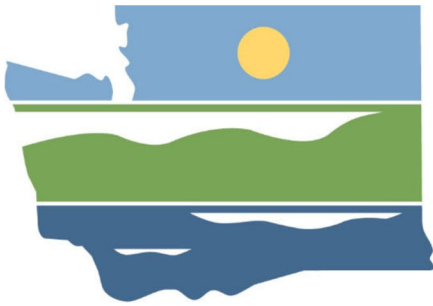
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Ecology in writing. This shall include all remedy Work identified during Work activities for the Property by Contractor, Ecology and the Ecology Representatives.

**3.08 CLEANUP**

- A. A general cleanup shall be made immediately after and as part of all Work done at the Project Site.
  - 1. Adjacent areas shall be cleaned to the extent that the Work may scatter litter or debris.
- B. Such cleanup shall include pick-up and removal from the Project Site all clippings, leaves, and all other litter and debris originating from any source whatsoever.
- C. Remove flag labels from all vegetative material.
  - 1. Contractor shall collect and provide all flag labels from each Property to the Ecology Representative by the end of each Property's Maintenance and Finishing Period.

**END OF SECTION 32 93 43**



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**IFB 2334 TCP  
ADDENDUM #1**

**PROJECT TITLE: Everett Smelter Uplands Residential 2020 Cleanup Group**

This Addendum, which consists of Revisions and Clarifications to the Project Manual, is hereby made a part of the Bid Documents for **IFB 2334 TCP**, and as such, shall be a part of the Contract Documents for this Project.

This addendum **must be signed** and submitted with the bid proposal form for this IFB before the stipulated bid due date and time in order for the bid to be considered responsive.

<b>Original IFB bid opening date and time:</b>	<b>REVISED IFB bid opening date and time:</b>
Thursday, March 16, 2023 at 3:00 PM (local time Lacey, WA)	<b>No Change</b>

**Revision to Project Manual** as follows: Deleted text is indicated with strike through (~~sample~~) and new text is indicated with underlined (sample).

**1. Section 00 41 00, page 3:**

**TIME FOR COMPLETION**

**Contract Time** - The undersigned hereby agrees to Substantially Complete all the work under the Base Bid (and accepted Alternates) within ~~180~~ **230** calendar days after the date of the Notice to Proceed.

**By signing this document, you are acknowledging that you have reviewed the updated bid documents prior to finalizing and submitting your bid.**

**Bidder Acknowledgement:**

**Addendum Issued by:**

\_\_\_\_\_  
**Authorized Signature of Bidder**

\_\_\_\_\_  
**Erika Lindsey, P.E.**

**Contracts Officer**

**Department of Ecology**

**Toxics Cleanup Program**

**(360) 280-5697**

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

**erli461@ecy.wa.gov**

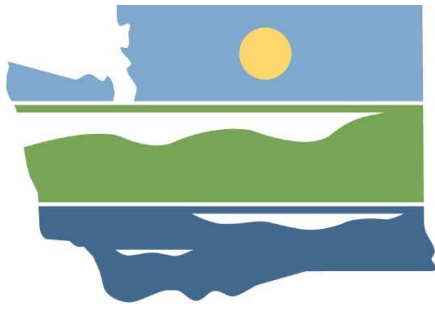
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**Title**

\_\_\_\_\_  
**Company**

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

\_\_\_\_\_  
**Date**





DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**IFB 2334 TCP  
ADDENDUM #2**

**PROJECT TITLE: Everett Smelter Uplands Residential 2020 Cleanup Group**

This Addendum, which consists of Revisions and Clarifications to the Project Manual, is hereby made a part of the Bid Documents for **IFB 2334 TCP**, and as such, is part of the Contract Documents for this Project.

This addendum **must be signed** and submitted with the bid proposal form for this IFB before the stipulated bid due date and time in order for the bid to be considered responsive.

<b>Original IFB bid opening date and time:</b>	<b>REVISED IFB bid opening date and time:</b>
Thursday, March 16, 2023 at 3:00 PM (local time Lacey, WA)	<b>No Change</b>

**Revision to Project Manual as follows:**

- Section 01 11 13 - 1.01 Price and Payment Procedures** has been modified as follows:  
Deleted text is indicated with strike through (~~sample~~) and new text is indicated with bold and underlined (**sample**).

**TOTAL BASE BID**

**The following is a breakdown of work included in the Total Base Bid for “Everett Smelter Uplands Residential 2020 Cleanup Group”**

The **Total Base Bid** is a lump sum bid amount that includes all costs, including overhead and profit, for the bidder to provide all labor, materials, and equipment necessary for the remediation of contaminated soil, site restoration, and/or landscaping of the ~~twenty (20) properties~~, **thirty-eight (38)** as specified in the Project Manual, including, but not limited to, the activities described in A. through I, below.

2. **Section 02 61 13 – 1.03 D.** has been modified as follows: Deleted text is indicated with strike through (~~sample~~) and new text is indicated with bold and underlined (**sample**).

The Contractor is responsible for all testing needed to obtain approvals for disposal of contaminant materials. Arsenic concentrations observed in samples taken in each Property demonstrated substantial variation. The highest concentrations indicated for Properties in the Project Site ranged up to 274 parts per million (ppm), but the median concentration is about 54 ppm. Lead concentrations have been measured as high as 1413 ~~mg/L~~ **mg/kg**. See Appendix C01 – Pre-Construction Soil Sampling Results for specific information and Appendix A02 for general information about working with Arsenic in soil. Appendix C also contains TCLP test results.

3. **Section 01 77 00 – 1.06 A** has been modified as follows: Deleted text is indicated with strike through (~~sample~~) and new text is indicated with bold and underlined (**sample**).

As noted in Section 32 92 23 – Sodding, Section 32 92 **93** 33 – Shrubs, and Section 32 92 **93** 43 – Trees the maintenance period for each property starts after placement of sod, shrubs and plants, and trees and continues for 60 calendar days.

4. **Section 01 71 23 Field Engineering** has been replaced in its entirety to clarify roles and responsibilities for surveying. The updated Section 01 71 23 Field Engineering is posted at: <https://app.box.com/s/cx3uli0fcu1e31mknpsr3o8rbck2d644>.

5. **Appendix C: Site Conditions Documents** has been replaced in its entirety to include chain of custodies for samples and site sample maps. The updated Appendix C is posted at: <https://app.box.com/s/cx3uli0fcu1e31mknpsr3o8rbck2d644>.

6. **Table 01 77 00 -1 Everett Smelter Cleanup: Property Close Out Procedures** has been modified as follows: Deleted text is indicated with strike through (~~sample~~) and new text is indicated with bold and underlined (**sample**).

**Table 01 77 00-1: Everett Smelter Cleanup: Property Close Out Procedure**

Item	Timeframe	Event	Staff Involved	Purpose	Comments
<b>Substantial Completion</b>					
	At least 10 working days before anticipated Substantial Completion (Sect. 01 77 00, 1.05)	Notify Ecology of work completion and readiness for Substantial Completion inspection for a/several property(s)	Contractor	Initial review of work and inspection. Ecology gets feedback from the owner.	Includes Contractor preliminary punch list (01 31 00, 1.04), restoration, and Project Record
	Once Ecology confirms adequate information provided for inspection	Substantial Completion inspection	Ecology/ Contractor	Achieve Substantial Completion	--
	Within 3 working days of above inspection	Substantial Completion Inspection Punch List for property(s)	Ecology	Provide Inspection Punch list to Contractor	--
	Substantial Completion Date	Notice of Substantial Completion	Ecology	Document Substantial Completion	--
<b>Maintenance Period</b>					

Item Timeframe	Event	Staff Involved	Purpose	Comments
Once all sod, plants, shrubs, and trees are installed at a property (32 92 23, 3.06; 32 92 93 33, 3.07; 32 93 43, 3.07)	Starts landscaping maintenance period for each property. <del>Protection required through Final Completion.</del>	Contractor	Starts 60-calendar-day maintenance period	–
45 calendar days into 60-calendar-day maintenance period (01 77 00, 1.06)	Ecology inspects property	Ecology	Provide Maintenance Punch List	–
30 to 40 working days into Maintenance Period for a property (01 71 23, 3.05)	Post-Restoration Survey. Submit to Ecology within 5 working days of survey.	Contractor	Confirm if settlement requires maintenance work	–
Within 5 working days of receiving contractor survey results	Ecology reviews contractor survey results	Ecology	Review elevation control point submittal and inform contractor of required actions	–
60 calendar days into Maintenance Period for a property	Contractor completes Maintenance Punch List for each property	Contractor	Complete Maintenance Punch List	–
<b>Final Completion Period</b>				
At least 10 working days before anticipated Final Completion (01 77 00, 1.07)	Notify to Ecology of work completion and readiness for Final Completion inspection for a/several property(s)	Contractor	Complete all Substantial Completion inspection Punch List items	Includes supplemental items
Once Ecology confirms adequate information provided for inspection	Final Inspection	Ecology/ Contractor	Provide Final Inspection Punch List identifying items to be completed	–
Within 3 working days of above inspection	Final Completion Inspection Punch List for property(s)	Ecology	Provide Inspection Punch list to Contractor	–
Prior to Ecology Final Completion Letter	Contractor completes Final Inspection Punch List Items	Contractor	To achieve Final Completion	–
Ecology confirms all Final Inspection Punch List and contract items are complete	Ecology issues Final Completion letter	Ecology	Document Final Completion	–
<b>Warranty Period and Remedy Work</b>				
20 working days before end of 1 year Warranty Period (00 72 00, 5.16.D; 01 77 00, 1.08; 32 92 23, 1.07, 32 93 33, 1.07, 32 93 43, 1.07)	Contractor warranty inspection. Warranty Period starts after Substantial Completion date.	Ecology/ Contractor	Confirm work meets requirements and specifications of the contract and identify deficiencies in work	5 working days notice for property owners
Within 20 working days of notification of warranty items (01 77 00, 1.08)	Contractor to complete Remedy Work	Contractor	Correct deficiencies during Warranty Period	–

Item Timeframe	Event	Staff Involved	Purpose	Comments
Per General Conditions (00 72 00; 01 77 00, 1.07)	Final Acceptance	Ecology, Contractor	Final invoice and final project record due per General Conditions (00 72 00, 6.09; 01 77 00, 1.03E)	-

**By signing this document, you are acknowledging that you have reviewed the updated bid documents prior to finalizing and submitting your bid.**

**Bidder Acknowledgement:**

**Addendum Issued by:**

\_\_\_\_\_  
**Authorized Signature of Bidder**

\_\_\_\_\_  
**Erika Lindsey, P.E.  
Contracts Officer  
Department of Ecology  
Toxics Cleanup Program  
(360) 280-5697  
erli461@ecy.wa.gov**

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

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Company**

\_\_\_\_\_  
**Date**

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

**Revised Section 01 71 23:  
Field Engineering**

**SECTION 01 71 23  
FIELD ENGINEERING**

**PART 1 - GENERAL**

**1.01 SECTION INCLUDES**

Prior to commencing excavation for the Work, the Contractor must complete surveys as follows:

- A. A registered professional land surveyor (PLS) must locate property boundaries. PLS must measure and document topography at a minimum of three times during construction:
  - 1. Pre-construction
  - 2. Post-excavation
  - 3. Post-Restoration
- B. PLS must prepare As-built Survey Documentation
- C. Construction surveyors must layout the work and monitor construction progress.

**1.02 RELATED SECTIONS**

- A. Coordinate related requirements in other sections of the Specifications, including but not limited to the following:
  - 1. Section 01 33 00 - Submittal Procedures
  - 2. Section 01 77 00 - Closeout Procedures
  - 3. Section 02 22 00 - Existing Conditions Assessments
  - 4. Section 31 23 16 - Excavation
  - 5. Section 31 23 23 - Fill

**1.03 REFERENCES**

- A. Horizontal datum: Washington State Plane Coordinate system. North zone, NAD 83/11.
- B. Elevation datum: NAVD 88.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 71 23 – FIELD ENGINEERING**

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**1.04 QUALITY ASSURANCE**

- A. It is the responsibility of the Contractor to schedule all required surveys and to verify that each survey has met the Contract requirements prior to proceeding to the next sequence of Work. Ecology or Ecology's Representative will review and approve each survey or survey increment prior to the Contractor proceeding to the next phase of work in that specific area.
- B. Surveys of the Project must be surveyed using the same vertical datum and horizontal coordinate system as the Contract requirements noted above in **Article 1.03 - References**.
- C. Where indicated, survey work must be performed and stamped by a PLS registered in the State of Washington, independent of the Contractor, and acceptable to Ecology. The surveyor must have actively engaged in survey operations for the past five (5) years.
- D. The PLS must have insurance that has limits that meet or exceed the requirements of the General and Supplemental Conditions.
- E. A qualified construction surveyor must be assigned to the Contractor's crew to lead and complete any necessary Construction Survey Work.
- F. Ecology reserves the right to retain an independent surveyor to periodically check the Contractor's survey. Surveying performed by Ecology for this purpose will be at no cost to the Contractor.

**1.05 SUBMITTALS**

- A. General submittals required in accordance with this Section include the following (as detailed in **Article 3.06** of this Section) to be submitted in accordance with **Section 01 33 00 - Submittal Procedures**:
- B. Surveying Schedule.
  - 1. Submit a surveying schedule with the Preliminary Project Schedule submittal in order to complete the surveying requirements at each Property before commencing clearing, grubbing, and/or earthwork.
  - 2. Contractor surveying schedule will provide Ecology a minimum of five (5) working days' notice in advance of Contractor activities for each Property to permit notification of Property Owners and Tenants.
- C. Submit a Proposed Elevation Control Point Plan for each property indicating the locations of the elevation control points to be surveyed for pre-construction, post-excavation, post-restoration, and as-built surveys.
- D. Pre-construction surveys.

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1. Submit pre-construction survey data, including the property boundary survey documentations, at least two (2) working days prior to the commencement of clearing, grubbing, and earthwork for the subject property, unless otherwise permitted by Ecology in writing. Submittal documentation must conform to requirements in this section 3.06A.
  2. Contractor must coordinate Work so surveying and existing condition assessments specified in **Section 02 22 00 - Existing Conditions Assessments** can be performed concurrently.
- E. Post-excavation surveys.
1. Submit post-excavation survey data upon completion of excavation and with sufficient time for Ecology's review prior to beginning backfill activities. Submittal documentation must conform to requirements in this section 3.06A.
- F. Post-restoration Surveys.
1. Submit post-restoration survey data within 1 calendar week upon completion of sodding work for each property. Submittal documentation must conform to requirements in this section 3.06A.
- G. As-Built Survey Documentation.
1. Submit as-built survey documentation obtained during Work for each Property, as requested by Ecology, and with the Project Record for Substantial Completion.
- H. Upon request by Ecology, Contractor must submit all current and past survey data for all properties where work has been performed or is in the process of being performed.
- I. All required survey data must be included in the project record for submission to Ecology before final completion.

**1.06 BENCHMARKS**

- A. Contractor is responsible for preserving all benchmarks, stakes, and markings on existing features, and the replacement of any that are displaced or missing.
1. Contractor is responsible for replacing all benchmarks, stakes, and markings disturbed between the time pre-construction surveys are performed at each Property and the time Work is completed at each Property.
  2. Contractor must use methods that allow for potential disturbance of benchmarks, stacks, and markings by Property Owners and/or Tenants.



**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 71 23 – FIELD ENGINEERING**

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**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

**3.01 CONSTRUCTION SURVEY**

- A. The Contractor must complete construction surveys to regularly verify work is being performed in conformance with relative depths at elevation control points and marks to monitor the progress of the work and conformance to required excavation and backfill depths and the tolerances specified for each type of work.
- B. Ecology may request the Contractor complete a construction survey to collect and record survey data at the following stages of the Work:
  - 1. After backfill and compaction of common fill completed for elevation control points.
  - 2. After backfill and light rolling of topsoil completed for elevation control points.

**3.02 PROPERTY BOUNDARY SURVEY**

- A. Contractor must retain the services of a PLS to survey the property lines for each Property in the Project Site and clearly mark the property corners prior to commencing Work. Reference information for the property line alignments must be obtained from the most up-to-date version of Snohomish County Tax Parcel records by Contractor.
  - 1. Property lines indicated on the site maps in **Appendix A01 - Contract Drawings** represent property boundary information obtained from Snohomish County Tax Parcel GIS records and are provided for reference only.
  - 2. Contractor must not allow Work to damage adjacent Properties or site features within those Properties.
  - 3. Work for each Property will be extended into the City of Everett public right-of-way, up to the City-owned hardscape (i.e., concrete sidewalk, curb, or asphalt or concrete-paved street, as applicable). The areas between the property line nearest the City right-of-way and the City-owned hardscape have been included in the quantities specified for each Property in **Appendix A01 - Contract Drawings**.
- B. Permission for extending the Work into the public right-of-way has been granted to Ecology by the City of Everett in accordance with Ecology's agreements with the City of Everett regarding the performance of this Work.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 71 23 – FIELD ENGINEERING**

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**3.03 ELEVATION CONTROL POINTS**

- A. Contractor must retain the services of a PLS to establish a grid of elevation control points for each Property in all areas where Work will be performed. Surveys of elevation control points must include both horizontal and vertical dimensions from a known benchmark maintained throughout the Work.
1. Elevation control points must be located on a grid with a maximum spacing of ten (10) horizontal feet between survey points.
  2. Elevation control points must capture all changes in grade, which may require closer survey points than the spacing noted above.
  3. Elevation control points must not be located within two (2) horizontal feet of any building or site feature specified to Remain In Place, unless compliance with this requirement will prevent the location of any elevation points (such as between structures or Site features less than four (4) feet apart).
  4. Elevation control points must not be located within six (6) horizontal feet of the base of mature trees having a diameter of twelve (12) inches or greater (as measured four [4] vertical feet from the tree base) and specified in the Contract Documents to Remain In Place.
  5. For any slope in a Property greater than three (3) vertical feet in elevation change and steeper than 3 (horizontal) to 1 (vertical), Contractor must collect additional elevation control points as necessary to provide a minimum of three (3) elevation control points for each ten (10) horizontal feet of slope. The minimum three (3) elevation control points must be located at the crest, toe, and approximate middle of the slope.
- B. If the contractor marks any feature to remain to indicate the pre-construction ground surface or other survey or work mark, the contractor must completely remove such marks before Final Completion.
- C. Drainage concerns on each Property must be immediately brought to Ecology's attention for resolution.

**3.04 PRE-CONSTRUCTION SURVEY**

- A. For each Property, Contractor must retain the services of a PLS to survey topography of the pre-construction ground surface at the approved elevation control points. Submit results in data table per Paragraph 3.07A(6) of this section.
- B. The pre-construction survey must also identify surface feature elements to remain, including, but not be limited to, hard scape limits and no dig areas, irrigation/sprinkler heads, utility items and access boxes, control systems, and surface piping and appurtenances.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 71 23 – FIELD ENGINEERING**

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**3.05 POST-EXCAVATION SURVEY**

- A. For each property, Contractor must retain the services of a PLS to survey topography of the post-excavation ground surface at the approved elevation control points (same points as surveyed for the pre-construction survey). Post-restoration surveys must also determine the horizontal limits of excavations, transitions between zones of differing excavation depths, tree critical root zone boundaries and approximate excavation depths, and utilities encountered. Submit results in data table format per Paragraph 3.07A(6) of this section. The elevation control points must be the same locations of survey shots as used for the pre-excavation surveys and recorded by Contractor after excavation to depth specified for each Decision Unit of each Property as specified in **Appendix A01 - Contract Drawings, and Article 1.05.D**.

**3.06 POST-RESTORATION SURVEYS**

- A. For each property, Contractor must retain the services of a PLS to survey topography of the post-excavation ground surface at the approved elevation control points, which must be the same points as surveyed for the pre-construction and post-excavation surveys. Post-restoration surveys must also identify the limits of each type of surface restoration material (gravel, bark, sod, etc.) and other constructed work of significance. Submit results in data table format per Paragraph 3.07A(6) of this section.

**3.07 MAINTENANCE AND FINISHING PERIOD CORRECTIVE ACTION SURVEY**

- A. In the event that Ecology identifies a potential topographic defect such as, but not limited to, settlement or incorrect restoration affecting drainage, , Contractor must retain the services of a PLS to survey topography of the ground surface at the applicable elevation control points within the area of the potential defect. Submit results in data table format per Paragraph 3.07A(6) of this section.
- B. Following corrective action, the Contractor must retain the services of a PLS to survey topography of the ground surface at the applicable elevation control points within the area of the alleged defect.
- C. Correction of defects and surveys of the defects and their restoration will be at no additional cost to Ecology.

**3.08 AS-BUILT SURVEY DOCUMENTATION**

- A. As-built survey documentation must include:
1. General: The Contractor must be responsible to coordinate the communication of surveys/data during work and after restoration to minimize any delay in transitioning work from one property to the next. Ecology or Ecology's

**DIVISION 01 – GENERAL REQUIREMENTS**  
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Representative may take up to 24 hours, once provided with the necessary progress survey data, to determine compliance with the specifications.

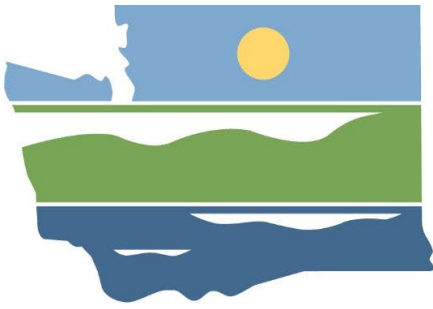
2. Field notes, drawings, quantity computations, and data point files must be submitted to Ecology or Ecology's Representative within 5 working days after completion of each surveyed property. Survey documentation must be submitted in accordance with Section 01 33 00 – Submittal Procedures.
3. As-built Survey documentation must be submitted to Ecology or Ecology's Representative at least five (5) working days before the Final Completion Inspection as noted in Article 3.05 of this Section.
4. As-Built Survey Documentation:
  - i. Data Table: Elevation data from survey of elevation control points must be submitted in table format, with a separate table for each property. Tables must be organized with list of control points in the left column and data from the pre-excitation, post-remediation, and post-restoration surveys presented in the following columns. Tables must also have columns indicating the differences in elevations between the post-remediation and pre-excitation surveys, and the post-restoration and pre-excitation surveys. Prepare and submit table in EXCEL spreadsheet electronic file. For each survey and for each surveyed point (i.e., pre-construction, post-excitation, and as-built), provide horizontal coordinates and vertical elevation. For final as-built submittal, also submit final table in PDF file format, with signatures by General Contractor and Surveyor.
  - ii. Post-restoration As-Built Drawing:
    1. For each property, the Contractor must submit an As-Built drawings of the completed work, in both electronic format (CAD) and pdf format. The As-Built drawings must be produced full size (ANSI D, 22x34 inch).
    2. The As-Built drawing must also accurately depict constructed work including, but not limited to, areas of each design excavation depth, actual excavation horizontal extents, post-restoration elevations at elevation control points, area of each restoration surface material, critical root zone limits, utilities encountered, other constructed features of significance, and property boundaries established. The As-built drawings must indicate topographic contours with 0.5-foot intervals for the area surveyed, and indicate the location of the elevation control points, with associated elevation control points numbered to correspond to the control point numbers listed in the data tables.

**DIVISION 01 – GENERAL REQUIREMENTS**  
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3. The Contractor's firm name must be printed on each sheet along with Project/Contract name, number, property address, and date of each survey. Each drawing must be signed and stamped by the PLS.
- iii. Quantity Calculations: For Ecology requested surveys, quantities must be computed by the Contractor to the nearest cubic yard. Tabular summaries must be submitted to show standard depth, over-excavation, and total excavation quantities, over-placement, and total placement quantities. One copy of excavation quantity calculations must be included with the related survey documentation.
- iv. Field Notes: A bound copy, or pdf, of all field notes taken during the topographic survey must be included in the documentation submitted for each survey.
- v. Electronic Storage of Data: All survey data collected by an electronic data acquisition system must be submitted as an electronic file in a current AutoCAD software format. At a minimum, data for each survey point must include a sequential reference number, the elevation, appropriate coordinates, and a descriptive note.
- vi. Certification of Compliance: A certificate signed and sealed by the PLS, certifying that the work as constructed conforms to the depths and tolerances as specified in the Contract Documents must be submitted. The certification must document attainment of numeric tolerance goals, and explain any deviations from tolerance goals, such as per Specification Section 31 23 16 EXCAVATION 3.07A,
- vii. The final package of As-Built Documentation must have a cover sheet signed by the Contractor attesting that the Contractor has reviewed the PLS documentation and believes it to be an accurate and complete depiction of the work completed.

**END OF SECTION 01 71 23**



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**IFB 2334 TCP**  
**ADDENDUM #3**

**PROJECT TITLE: Everett Smelter Uplands Residential 2020 Cleanup Group**

This Addendum, which consists of Revisions and Clarifications to the Project Manual, is hereby made a part of the Bid Documents for **IFB 2334 TCP**, and as such, is part of the Contract Documents for this Project.

This addendum **must be signed** and submitted with the bid proposal form for this IFB before the stipulated bid due date and time in order for the bid to be considered responsive.

<b>Original IFB bid opening date and time:</b>	<b>REVISED IFB bid opening date and time:</b>
Thursday, March 16, 2023 at 3:00 PM (local time Lacey, WA)	<b>No Change</b>

**Revision to Project Manual** as follows: Deleted text is indicated with strike through (~~sample~~) and new text is indicated with underlined (sample).

1. **Section 00 43 43 Prevailing Wage** has been modified as follows:

The State of Washington prevailing wage rates are applicable for this public works project, which is located in ~~Seattle~~, **Everett**, which is in ~~King Counties~~ **Snohomish County**, Washington.

**By signing this document, you are acknowledging that you have reviewed the updated bid documents prior to finalizing and submitting your bid.**

**Bidder Acknowledgement:**

**Addendum Issued by:**

\_\_\_\_\_  
**Authorized Signature of Bidder**

\_\_\_\_\_  
**Erika Lindsey, P.E.**

**Contracts Officer**

**Department of Ecology**

**Toxics Cleanup Program**

**(360) 280-5697**

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

**erli461@ecy.wa.gov**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Company**

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

\_\_\_\_\_  
**Date**